
| RESEARCH ARTICLE

Financial Technology Adoption and Change Management of Rural Banks in compliance with BSP NSFI 2022-2028: Basis for Business Transformation Roadmap

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| ABSTRACT

This study investigated the relationship and impact between the perceived level of financial technology adoption and the extent of change management process among Philippine Rural Banks in compliance and strategic context of the Central Bank of the Philippines' (BSP) National Strategy for Financial Inclusion (NSFI) 2022–2028 under the core pillar one of inclusive digital financial service. Utilizing a Quantitative-Correlational Research Design with Impact Analysis, data were collected from thirty-nine (39) purposively selected decision makers of BSP-regulated and RBAP-member rural banks in Laguna, Philippines. The findings revealed that the overall perceived level of FinTech adoption among the rural banks was "Adopted," with a composite mean of 3.03. Consumer Protection and Data Security ranked highest (3.27, Highly Adopted), while Digital Infrastructure was identified as the most significant technical hurdle (2.61, Adopted). The extent of the change management process was assessed as "Implemented" with an overall mean of 2.92. The banks demonstrated proficiency in Implementation and Training Execution (2.97) but faced their greatest challenge in the Institutionalization phase (2.87). Also, there is a significant positive relationship between FinTech adoption and the change management process, yielding a Spearman rho coefficient of 0.804 ($p < 0.001$) and rejecting the first null hypothesis. While the impact analysis for change management yielded a p-value of 0.346 leading to a failure to reject the second null hypothesis at the aggregate level, specific dimensions had profound impacts. Most notably, Alignment with BSP Digitalization Policies emerged as a highly significant impact of organizational Readiness and Urgency ($p=0.001$) and Communication and Buy-in ($p=0.002$). Strategic alignment with national regulatory directives acts as a more powerful catalyst for organizational readiness and communication than technical infrastructure alone. Based on the study, a Business Transformation Roadmap is proposed to help rural banking leaders bridge the gap between compliance-driven implementation and the permanent institutionalization of inclusive digital financial services.

| KEYWORDS

Philippine Rural Bank, Financial Technology Adoption, Change Management, BSP NSFI 2022-2028, Business Transformation, Inclusive Digital Finance

| ARTICLE INFORMATION

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1. Introduction

The global financial landscape has been fundamentally reshaped by the accelerating forces of digital transformation. This paradigm shift is most evident in developing economies, where the rapid surge in digital banking and electronic payment networks serves as the primary mechanism for driving financial inclusion. According to the World Bank (2025), approximately 79% of adults globally now hold a formal bank account, an unprecedented level of access that is heavily facilitated by digital channels, mobile money, and digitally enabled financial architectures. However, this global movement toward digital finance is not uniform. As cited by the T20 Brazil (2024), a profound digital divide persists across developing nations; while advanced digital economies exhibit near-universal utilization of digital transfers, emerging markets continue to encounter severe systemic obstacles. These obstacles include a pervasive lack of digital literacy, chronic infrastructural deficiencies, escalating cybersecurity risks, and the prohibitive costs associated with integrating modern applications into legacy systems. According to Ononiwu et al. (2024), these challenges impose

disproportionate operational and financial burdens on smaller, community-based financial institutions that inherently lack the scale and technical maturity of their larger commercial counterparts.

Within the Republic of the Philippines, the transition toward a digital-first economy has been elevated from an operational upgrade to a critical national development mandate. According to Amparo (2025), the guiding principle that "*no bank should be left behind*" has become a vital rallying cry for the inclusive finance sector. The Bangko Sentral ng Pilipinas (BSP) has orchestrated this nationwide transition through aggressive policy frameworks, most notably the Digital Payments Transformation Roadmap (DPTR). As cited by Devanesan (2023), the DPTR achieved remarkable success, surpassing its strategic target by converting 52.8% of all retail payment volumes into digital formats by 2023, largely powered by interoperable national payment rails such as InstaPay and PESONet. Despite this macroeconomic triumph, the benefits of technological innovation have not been distributed equitably across the Philippine banking hierarchy. While universal and commercial banks have rapidly absorbed these technological shifts, a severe digital divide threatens the operational survival of the rural banking sector.

Rural banks occupy a unique and historically vital position within the Philippine economy. Established to serve the unbanked, agricultural, and marginalized demographics, these institutions are the bedrock of countryside economic development. According to the Agricultural Credit Policy Council (2022), their traditional business model was built on high-touch service, localized presence, and intimate knowledge of their clients. However, the modern financial ecosystem demands a shift. Under the BSP National Strategy for Financial Inclusion (NSFI) 2022–2028, these institutions are subjected to intense regulatory pressure to modernize. The NSFI identifies "*inclusive digital finance*" as its core pillar, explicitly prioritizing the leverage of digital technologies to facilitate cost-efficiencies, drive innovation, and enable the viable delivery of financial services to last-mile communities. For rural banks, this transforms digital adoption from an optional competitive advantage into a strict regulatory imperative.

According to Xu et al. (2025), financial technology (FinTech) adoption is no longer a peripheral enhancement but a fundamental determinant of institutional survival and relevance. For rural banks, this modernization entails the complex integration of various technologies, including cloud-native core banking systems, digital loan origination architectures, and real-time payment gateways. The potential benefits are highly compelling: expanded market reach, significantly lowered operational costs, and enhanced service delivery. However, the operational execution is fraught with formidable challenges. These institutions grapple with high capital expenditure requirements, acute deficits in specialized technological talent, and the geographic reality of unreliable telecommunications infrastructure in remote archipelagic regions. Furthermore, rural banks must navigate stringent compliance requirements, specifically the Data Privacy Act of 2012 (RA 10173) and advanced BSP cybersecurity mandates, which disproportionately strain their limited resources.

The deployment of advanced financial technology is inherently a socio-technical endeavor. As conceptualized by Allam et al. (2024), the introduction of sophisticated FinTech without a structured, human-centric approach to managing the accompanying organizational change will inevitably result in operational failure. Change management acts as the vital bridging mechanism that translates technological potential into realized business value. It requires visionary leadership, transparent communication, continuous digital upskilling, and the realignment of institutional incentives to mitigate internal resistance and secure long-term behavioral adoption. According to Mavlutova et al. (2023), the successful synthesis of technological adoption and organizational change ultimately serves as the engine for holistic business transformation, creating resilient institutions capable of navigating the complexities of the digital economy.

To systematically evaluate this complex organizational phenomenon, this study is anchored in a synthesized conceptual framework that merges technological integration models with behavioral transition theories. As utilized in contemporary contexts by Amini and Javid (2023), the independent variable is framed by Everett Rogers' Diffusion of Innovations (DOI) Theory (1962). In this highly regulated setting, the "*innovation*" is explicitly operationalized as holistic compliance with the inclusive digital finance mandates of the BSP NSFI 2022–2028. Adoption is not measured by subjective preference but by the structural integration of five critical technology dimensions defined by the central bank: Digital Infrastructure, Consumer Protection and Data Security, Inclusion of Digital Financial Services, Governance and Risk Management in Digital Service, and Alignment with BSP Digitalization Policies.

The dependent variable, representing the organizational response, is grounded in Kurt Lewin's Change Management Theory (1951), as recently applied by Rosdiana and Aslami (2022). Lewin's sequential model—Unfreeze, Change, Refreeze—provides the analytical structure necessary to evaluate systemic compliance transitions. This is measured across five operational phases: Readiness and Urgency (Unfreeze), Communication and Buy-in (Unfreeze), Implementation and Training (Change), Process Adjustment and Testing (Change), and Institutionalization (Refreeze). The synthesis of these frameworks posits that the stringent, complex requirements of FinTech compliance act as an external catalyst, forcing rural banks to execute structured change management interventions. The resulting empirical relationships dictate the trajectory of the institution's digital maturity.

The primary objective of this comprehensive study is to investigate the interdependencies between the perceived level of FinTech adoption and the extent of the change management process among Philippine rural banks. Specifically, this research seeks to answer the following questions: (1) What is the perceived level of financial technology adoption in compliance with the BSP NSFI 2022-2028? (2) What is the extent of the change management process implemented by these rural banks? (3) Is there a significant relationship between the perceived level of financial technology adoption and the change management process? (4) Does the perceived level of financial technology adoption have a significant impact on the change management process? (5) Based on these findings, what Business Transformation Roadmap can be proposed to guide these banks toward sustainable compliance?. The

study tests two primary null hypotheses: first, that there is no significant relationship between the variables, and second, that financial technology adoption has no significant impact on the change management process.

2. Methodology

To objectively measure the dynamic interplay between technological integration and organizational behavior, this study employed a Quantitative-Correlational Research Design with Impact Analysis. As emphasized by Polit and Hungler (1987) and utilized in recent organizational studies by Devi et al. (2023), quantitative-correlational designs are uniquely suited to transitioning abstract conceptual frameworks into quantifiable, empirical facts by measuring the magnitude and direction of variance between pre-existing organizational variables. The non-experimental nature of this design ensures that the phenomena are observed in their natural operational state without artificial manipulation, providing an accurate diagnostic snapshot of the rural banking sector's strategic compliance and transformation realities.

The geographical focus of the inquiry was limited to the Province of Laguna, Philippines. This locale was purposively selected due to its highly representative mix of rapid semi-urban commercial development and deeply provincial agricultural zones. Laguna serves as an optimal empirical microcosm of the broader Philippine rural banking landscape, accurately capturing the diverse infrastructural, demographic, and operational realities these community-based institutions face nationwide. The population parameters were strictly defined: participating entities had to be registered Rural Banks physically operating in Laguna, officially regulated by the Bangko Sentral ng Pilipinas (BSP), and active members of the Federation of Laguna Rural Bankers under the Rural Bankers Association of the Philippines (RBAP).

Because digital transformation and regulatory compliance are strategically governed from the top down, the unit of analysis required highly specialized respondents. Utilizing a purposive sampling technique, as advocated by Ahmed (2024) for expert-level inquiries, the respondents were drawn exclusively from senior management teams, IT directors, and Board Members of the twenty (20) eligible member banks. These individuals possess the authoritative, firsthand knowledge necessary to accurately assess corporate strategy, IT capital expenditures, cybersecurity protocols, and organizational change efficacy. Based on a finite target population of forty (40) key executives, the Raosoft sample size calculator was utilized to determine the statistical thresholds. To maintain a 95% confidence level and a 5% margin of error, a minimum sample size of thirty-seven (37) was required. The empirical execution successfully secured thirty-nine (39) completed responses, exceeding the minimum requirement and ensuring robust statistical validity for inferential generalization.

The primary data collection instrument was a rigorously structured, self-administered survey utilizing a forced-choice 4-point Likert scale. By eliminating the neutral midpoint, the instrument compelled executives to take a definitive stance on the maturity of their operations, thereby generating sharper, more actionable data regarding adoption and implementation realities. The instrument was subjected to stringent content and face validation by a panel of four distinguished domain experts to ensure alignment with current industry standards and national regulatory language. The validation panel included Mr. Rafael Amparo, Executive Director of the RBAP; Mr. Raymond Rioflorida Estrella, Bank Officer of the Sustainable Finance Team at the BSP; Mr. Juliezher M. Colaljo, Assistant Professor at Mapua Malayan Colleges Laguna; and Dr. Jeffrey Astillero, the designated research statistician. Following expert validation, the instrument's internal consistency was verified through pilot testing conducted with the Quezon Federation of Rural Bankers. The resulting Cronbach's Alpha coefficients ranged from 0.724 to 0.916 across all sub-dimensions, signifying acceptable to excellent internal reliability.

The data gathering procedure was executed methodically to ensure all academic and ethical requirements were met. Formal institutional approval was secured from the President of the Laguna Federation of Rural Bankers. Data collection was executed synchronously during a formal assembly of the Federation, maximizing the response rate and ensuring data integrity through direct, on-site administration. The ethical execution of this research was strictly founded upon established legal compliance frameworks, most notably the Data Privacy Act of 2012 (Republic Act No. 10173). All participants were provided with an Informed Consent Form detailing the voluntary nature of their involvement. Furthermore, the researcher guaranteed strict confidentiality and anonymization; no individual executive or specific rural bank was identified in the raw data or final reporting, ensuring the protection of sensitive institutional intelligence.

The resulting raw quantitative data were subsequently subjected to sophisticated statistical treatment. Descriptive statistics, specifically Weighted Mean and Standard Deviation, were computed to determine the baseline maturity levels for both FinTech adoption and the change management process. Prior to inferential analysis, a Shapiro-Wilk test was performed to assess data normality. Following this, the Spearman Rho rank correlation coefficient was utilized to test the first null hypothesis by mapping the strength and direction of inter-variable relationships. Finally, a Multiple Linear Regression Bootstrap Technique was employed to conduct the impact analysis, testing the second null hypothesis by identifying the specific technological drivers that predict organizational change outcomes. The synthesis of these statistical outputs directly informed the development of the proposed Business Transformation Roadmap.

3. Results

The empirical findings of this study offer a comprehensive diagnosis of the operational realities within the Philippine rural banking sector. The data highlights the profound friction between regulatory ambition and technological capacity, while mapping the organizational behaviors required to navigate digital disruption.

3.1 The Perceived Level of Financial Technology Adoption

The perceived level of financial technology adoption serves as the primary gauge of the sector's regulatory compliance and technological modernization. The overall composite mean for FinTech adoption across the rural banking cohort is 3.03, translating to a verbal interpretation of "Adopted". This aggregate score indicates that, fundamentally, the sector has successfully transitioned beyond the exploratory phases of digitalization and is actively utilizing modern financial technologies to meet the BSP's inclusion mandates. However, a granular dissection of the five specific dimensions reveals a highly asymmetrical maturity profile characterized by sophisticated policy alignment layered over fragile physical infrastructure.

Table 1.

The Perceived Level of Financial Technology Adoption

Indicators	Weighted Mean	Verbal Interpretation	Rank
Consumer Protection and Data Security	3.27	Highly Adopted	1
Alignment with BSP Digitalization Policies	3.22	Adopted	2
Governance and Risk Management in Digital Service	3.08	Adopted	3
Inclusion of Digital Financial Services	2.98	Adopted	4
Digital Infrastructure	2.61	Adopted	5
Overall FinTech Adoption	3.03	Adopted	-

Note:

According to the dimensional analysis, Consumer Protection and Data Security represents the zenith of the sector's digital maturity, emerging as the sole dimension to achieve a "Highly Adopted" status with a mean score of 3.27. This superlative performance is a direct reflection of the intense regulatory environment engineered by the central bank. As cited by Folorunso (2024) and William and King (2025), contemporary cyber resilience is no longer an ancillary IT function but a non-negotiable strategic imperative driven by top-down accountability. In the Philippine context, compliance mandates issued by the BSP—particularly Circulars 1213, 1214, and 1215 enforcing the Anti-Financial Scamming Act (AFASA)—strictly mandate the implementation of automated, real-time Fraud and Anti-Money Laundering (FRAML) protocols. The data confirms that rural banks have prioritized these defensive mechanisms above all other innovations. Because a single, catastrophic data breach could result in irrecoverable reputational damage and the immediate revocation of operating licenses, rural banks have proactively established robust cryptographic safeguards, data privacy protocols, and automated fraud management systems.

Closely following this defensive posture is the dimension of Alignment with BSP Digitalization Policies (Mean = 3.22) and Governance and Risk Management in Digital Service (Mean = 3.08). The high ranking of these administrative and strategic dimensions indicates that the leadership of rural banks is acutely aware of the national regulatory roadmap. The presence of dedicated IT steering committees, formal board-level oversight, and risk management frameworks demonstrates an institutional commitment to the principles of the NSFI. As supported by Budiasih (2024), effective governance structures act as the formal mechanisms ensuring that technology investments align seamlessly with overarching corporate risk appetites and non-financial long-term goals. The data reflects a sector that is legally and administratively highly compliant, utilizing standard operating procedures to navigate the stringent demands of open finance and digital banking classifications.

The dimension of Inclusion of Digital Financial Services achieved a mean of 2.98 (Adopted). This reflects the active deployment of market-facing digital products, such as mobile applications, digital loan origination, and integration with the InstaPay and PESONet rails. According to Ozili (2021) and Zreik et al. (2023), the expansion of Digital Financial Services (DFS) is moving beyond basic transactional accounts to actively integrate informal economies into the formal system, lowering remittance fees and enhancing economic resilience. The score indicates that rural banks are participating in this deployment, though there is still substantial room to deepen the penetration of these services to truly marginalized, unbanked demographics.

However, the empirical evidence uncovers a profound vulnerability at the foundational layer of the transformation effort. Digital Infrastructure ranks decisively at the bottom, registering the lowest mean score of 2.61. While still technically categorized as "Adopted," this metric sits dangerously close to the "Partially Adopted" threshold. The raw data indicates that while banks are strategically willing to modernize, their existing technological backbones—comprising legacy, on-premise core banking systems and siloed databases—act as severe operational bottlenecks. As Northrop (2023) observes, the transition to agile, cloud-native environments represents the single most significant capital expenditure for community banks, straining their limited financial resources. Furthermore, as highlighted by Hosseinkhani (2025) and Mayowa (2025), the structural friction points of weak last-mile

internet connectivity in remote archipelagic regions heavily constrain the operational reliability of these institutions, creating "digital deserts" where connectivity fails.

The synthesis of these findings reveals a striking paradox within the Philippine rural banking sector: institutions possess a highly sophisticated, compliant administrative layer built atop a fragile, aging technical foundation. They are successfully constructing the regulatory "roof" of data security and governance before fully pouring the "concrete" of a robust digital infrastructure. To ascend to a holistic "Highly Adopted" status, these institutions must resolve their technical debt, accelerating the migration to API-driven, cloud-based core systems that can sustainably support the advanced security protocols they have already established.

3.2 The Extent of Change Management Process

The evaluation of the Change Management process measures the organizational capacity to absorb, execute, and sustain the behavioral shocks associated with technological disruption. Grounded in Lewin's Change Management Theory, the overall mean for the process stands at 2.92, interpreted as "Implemented". This score validates that rural banks do not merely install software; they actively deploy structured managerial interventions to guide their human capital through the transition. However, similar to the technological adoption profile, the behavioral transformation journey exhibits distinct peaks and valleys across the sequential phases of change.

Table 2.
The Extent of Change Management Process of Rural Banks

Indicators	Weighted Mean	Verbal Interpretation	Rank
Implementation and Training (Change)	2.97	Implemented	1
Communication and Buy-in (Unfreeze)	2.94	Implemented	2
Process Adjustment and Testing (Change)	2.90	Implemented	3
Readiness and Urgency (Unfreeze)	2.89	Implemented	4
Institutionalization (Refreeze)	2.87	Implemented	5
Overall Change Management	2.92	Implemented	-

The data reveals that rural banks perform optimally during the active, kinetic phases of transformation. Implementation and Training Execution ranks highest with a mean of 2.97. This dimension is heavily supported by strong internal metrics regarding the availability of technical troubleshooting teams during system rollouts. This indicates that management is highly proficient at mobilizing resources to mitigate immediate operational disruptions when a new system goes live. As cited by Benson (2021) and Russo (2025), comprehensive training is a crucial strategic investment that mitigates compliance risk and ensures smooth transitions. The banks have clearly prioritized post-deployment safety nets, ensuring that technical assistance is readily available to guide employees through the immediate friction of adopting a new core banking interface or mobile application backend. Concurrently, Communication and Buy-in (Mean = 2.94) and Process Adjustment and Testing (Mean = 2.90) reflect solid functional capabilities in disseminating information and adapting legacy manual workflows to fit new digital architectures. According to Hughes et al. (2023), organizations naturally excel at these execution phases because they involve highly visible, measurable, and task-oriented objectives. The banks demonstrate a proactive approach to operational redesign, actively reviewing workflows to prevent the common mistake of simply layering new digital tools over obsolete manual habits, a phenomenon Chen and Lin (2024) describe as "digital illusion".

Conversely, the data exposes critical vulnerabilities at the extreme ends of the change continuum. Readiness and Urgency registers a lower mean of 2.89. This suggests that while the technical deployment is well-managed, the initial psychological preparation of the workforce—convincing them of the existential necessity of the change—is somewhat lacking. As Perez (2023) points out, the absence of a pervasive sense of urgency is a persistent historical barrier in banking modernization, frequently leading to latent resistance rooted in organizational conservatism.

Most significantly, the final phase of Lewin's model, Institutionalization, ranks at the absolute bottom with a mean of 2.87. A critical indicator within this dimension—assessing the consistent, bank-wide usage of digital tools across all departments—scored an alarming 2.72. This metric highlights a profound "sustainability gap." While the banks excel at launching new technologies and conducting initial training sessions, they struggle immensely to make these digital behaviors a permanent, habitual aspect of the corporate culture. According to Weber and Zheng (2024), this post-deployment adoption decay occurs when organizations successfully manage the project phase but fail to fundamentally realign their long-term performance metrics, reward systems, and standard operating procedures. When the intense scrutiny of the implementation phase dissipates, employees frequently revert to familiar, legacy manual workflows because the organizational culture has not been permanently "refrozen." This lack of uniform usage remains the ultimate barrier to true business transformation.

3.3 The Significant Relationship

To elevate the analysis from descriptive observation to strategic insight, rigorous inferential statistics were applied to determine the existence and magnitude of the relationship between technological integration and organizational behavior. The application of the Spearman Rho rank correlation coefficient definitively establishes the profound interdependence of the two variables. The overall correlation coefficient is 0.804 with a p-value of <0.001, resulting in the rejection of the first null hypothesis (H_{01}). This statistically significant, strong positive relationship confirms the theoretical assertion that as rural banks mature in their adoption of complex financial technologies, the depth and rigor of their internal change management processes increase concurrently. The overarching finding fundamentally validates modern organizational theory. As asserted by Elia et al. (2024), digital transformation has shifted from a mere technological upgrade to an existential imperative that heavily relies on human-centric adaptability; change management cannot be treated as a secondary add-on.

Table 3.

The significant relationship of the perceived level of financial technology adoption and the extent of change management process

Dependent Variable	Independent Variable	Spearman Rho	p-value	Decision
Overall Change Management	Overall FinTech Adoption	0.804	<0.001	Reject H_{01}
Communication and Buy-in	Alignment with BSP Policies	0.837	<0.001	Reject H_{01}
Communication and Buy-in	Digital Infrastructure	0.290	0.073	Fail to Reject H_{01}
Institutionalization	Alignment with BSP Policies	0.285	0.079	Fail to Reject H_{01}

A granular review of the correlation matrix yields highly nuanced secondary insights. The most powerful correlation across the entire dataset exists between Alignment with BSP Digitalization Policies and Communication and Buy-in ($P = 0.837, p < 0.001$). This pairing is extraordinarily revealing. According to Afridi et al. (2023), leadership requires a compelling narrative to translate disruptive digital shifts into actionable, ground-level initiatives. The data proves that national regulatory mandates provide this exact narrative. When bank executives leverage the strict compliance deadlines of the BSP NSFI, they demystify the transition for the workforce, effectively using external policy pressure as the ultimate communication tool to secure internal buy-in.

Equally revealing are the specific intersections that failed to achieve statistical significance. The relationship between Digital Infrastructure and Communication and Buy-in is notably non-significant ($p = 0.073$). This exposes a critical fallacy often held by IT leadership: the assumption that superior technology automatically generates user enthusiasm. As argued by Heuermann (2024), merely purchasing advanced servers or migrating to cloud computing does not inherently foster psychological acceptance. Hardware upgrades, devoid of targeted, human-centric communication, will not compel an employee to embrace the corporate vision. Furthermore, Alignment with BSP Digitalization Policies showed no significant correlation with Institutionalization ($p = 0.079$). This confirms that while strict regulatory mandates are excellent for forcing initial compliance and communication, external rules cannot artificially sustain long-term cultural permanence. True institutionalization requires intrinsic cultural shifts and internal incentive realignment, not just adherence to a central bank checklist.

3.4 The Significant Impact

To determine causality and predictive strength, a Multiple Linear Regression model with Bootstrap Technique was utilized. At the aggregate level, the model yielded an R^2 of 0.603, indicating that roughly 60.3% of the variance in the overall Change Management Process can be explained by the combined dimensions of FinTech Adoption. However, the overall model's p-value registered at 0.346, failing to reject the second null hypothesis (H_{02}) at the macro level.

Despite this aggregate result, isolating specific dependent dimensions reveals profound, highly significant predictive impacts. Most notably, Alignment with BSP Digitalization Policies emerges as a dominant, statistically significant predictor for the unfreezing stages of organizational change. It heavily impacts Readiness and Urgency ($B = 0.871, p = 0.001$) and Communication and Buy-in Implementation and Training ($B = 0.745, p = 0.002$).

Table 4.

The significant impact of the perceived level of financial technology adoption and the extent of change management process

Dependent Variable (Change Management)	Significant Predictor (Financial Technology Adoption)	Beta (B)	t-value	p-value	Decision
Readiness and Urgency	Alignment with BSP Policies	0.871	3.544	0.001	Reject H_{02}
Communication and Buy-in	Alignment with BSP Policies	0.745	3.373	0.002	Reject H_{02}
Implementation and Training	Governance and Risk Management	0.578	2.03	0.043	Reject H_{02}

These findings fundamentally reshape the understanding of how digital transformation is triggered in the rural banking sector. As posited by Van der Berg and Meyer (2026), upgrading infrastructure alters the tools, but policy pressure alters the behavior. The regression analysis proves that the acquisition of digital infrastructure or the implementation of consumer protection firewalls

does not significantly drive the change management process. Instead, it is the strategic internalization of national policy that acts as the primary catalyst. When an institution explicitly aligns its corporate roadmap with the BSP's vision for inclusive digital finance, it transforms technological adoption from a passive IT project into an urgent, existential business priority. According to Chen and Gupta (2023), this "strategic compliance" provides executives with the necessary rationale to convince employees of the transition's value.

Additionally, Governance and Risk Management demonstrated a significant predictive impact on Implementation and Training Execution ($p = 0.043$). As supported by Nwosu and Silva (2024), the chaotic nature of system rollouts requires strict administrative boundaries. When risk parameters, oversight committees, and accountabilities are clearly defined at the governance level, downstream training programs become highly targeted, and technical deployments encounter significantly less operational friction.

3.5 The Business Transformation Roadmap

Based on the empirical findings—specifically identifying the severe operational gaps in digital infrastructure, resource allocation, role clarity, rigorous adversarial testing, and long-term institutionalization—a phased 24-month Business Transformation Roadmap is proposed to operationalize the banks' digital strategies in strict compliance with the BSP NSFI 2022–2028. Bridging the gap between the current infrastructural deficits and a highly profitable digital end-state requires strategy. Technology purchasing is insufficient without a corresponding evolution in human capital.

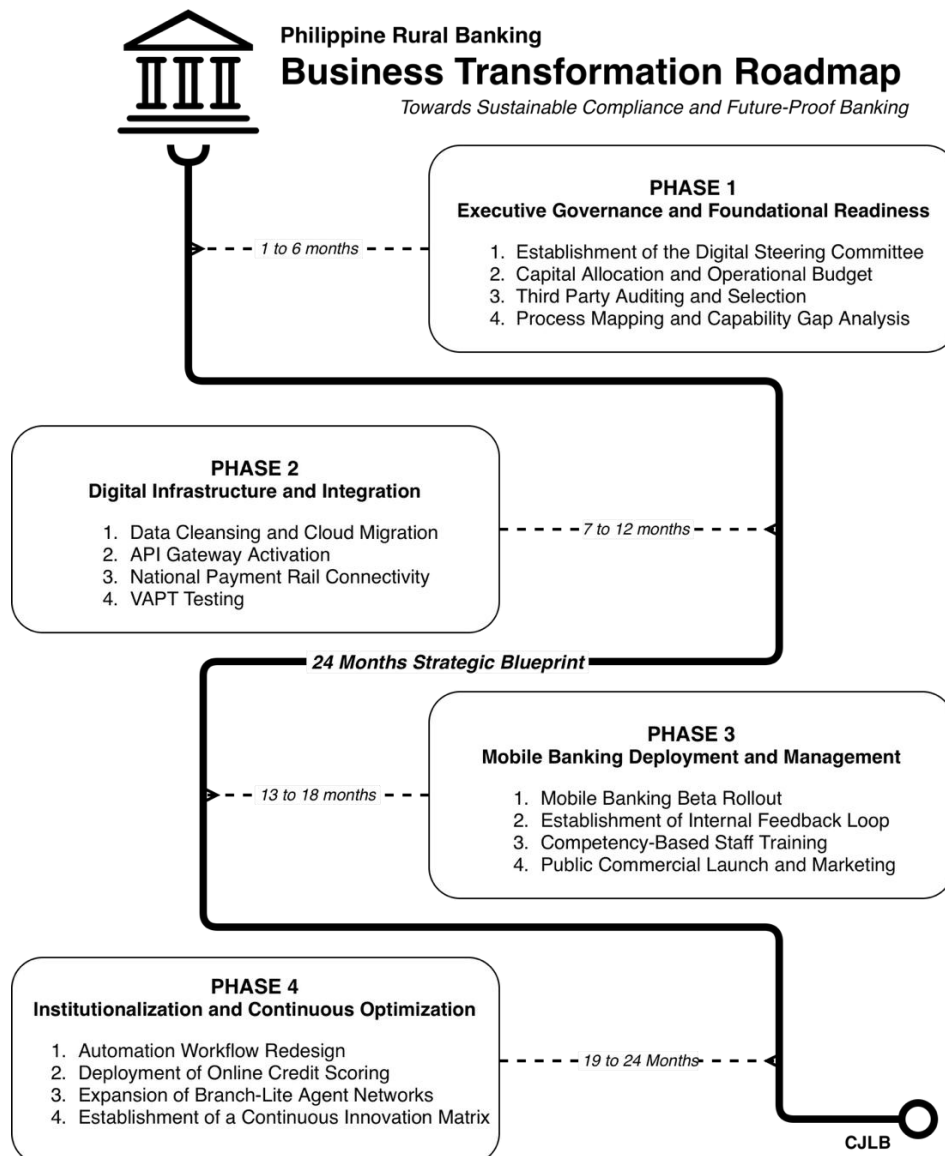


Figure 1. Strategic Blueprint of Business Transformation Roadmap

Phase 1. Executive Governance and Foundational Readiness (Months 1-6). The empirical data demonstrates a high correlation between executive governance and institutional readiness; therefore, the transformation cannot begin in the IT server room, it must begin in the boardroom. The Board of Directors must form a dedicated Digital Steering Committee led by the Chief Executive Officer, Chief Risk Officer, and Chief Technology Officer. This committee is tasked with aligning the transformation timeline strictly with the BSP NSFI mandates. To address the specific diagnostic failure in resource allocation (2.79 mean), the steering committee must legally allocate a dedicated capital budget of twenty to thirty million PHP, insulating the digital program from routine operational budget cuts. Vendor selection for Software-as-a-Service (SaaS) core banking providers must be predicated on proven compliance with BSP Circular 808 regarding IT Risk Management. Finally, Phase 1 concludes with a comprehensive Process Mapping and Capability Gap Analysis to identify systemic bottlenecks, directly addressing the diagnostic gaps found in readiness assessments.

Phase 2: Digital Infrastructure and Integration (Months 7-12). Following the establishment of executive governance, rural banks must address their lowest-performing metric: the digital infrastructure environment (2.61 mean). This phase executes the high-risk technical migration. Legacy data must be meticulously cleansed to remove duplications before being migrated into the new cloud-native core banking system during carefully orchestrated weekend cutover events. The IT department will focus on activating open API architectures to integrate white-label mobile applications and e-KYC biometric modules into the customer onboarding workflow. Crucially, the bank must officially integrate with InstaPay and PESONet via a licensed clearing switch operator to ensure interoperability with the broader Philippine financial ecosystem. Addressing the diagnostic need for rigorous cybersecurity scenarios (2.85 mean), independent third-party cybersecurity firms must be contracted to execute Vulnerability Assessment and Penetration Testing (VAPT) against the new infrastructure.

Phase 3: Mobile Banking Deployment and Management (Months 13-18). Technology deployment routinely fails due to a lack of internal communication and staff resistance. To address the communication and role clarity gaps (2.87 mean), the digital suite is initially launched as a closed-loop beta rollout exclusively to bank employees and a small, trusted cohort of existing clients. This environment allows the bank to stress-test capabilities without risking broader reputational damage. The bank must institute formal feedback mechanisms for frontline staff to report UI friction directly to developers for rapid iteration. Training must evolve beyond mere orientation; staff must undergo rigorous, scenario-based evaluations to ensure absolute competency in verifying e-KYC documents and troubleshooting mobile application issues. Following the successful beta, a public commercial launch is executed, supported by hyper-local marketing campaigns focused heavily on digital financial literacy to bridge the "*protection-outcomes gap*".

Phase 4: Institutionalization and Continuous Optimization (Months 19-24). The final phase targets the sector's most profound failure: inconsistent cross-departmental institutionalization (2.72 mean). Legacy manual workflows must be officially deprecated. All standard operating procedures are rewritten to mandate the exclusive use of the cloud core and digital tools for loan origination and reporting. Parallel manual workflows are strictly prohibited to force absolute behavioral adoption. Leveraging newly generated digital data streams—such as e-wallet transaction volume—the bank deploys AI-driven alternative credit scoring models to directly address the NSFI mandate of increasing access to finance for MSMEs and agricultural workers who lack traditional collateral. Furthermore, utilizing the new core's connectivity, the bank partners with local community merchants to equip them with secure point-of-sale applications, acting as branch-lite cash-in and cash-out conduits to expand geographical reach without physical CapEx.

4. Conclusions and Recommendations

This section provides a concise overview of the study's significant findings of the rural banks' financial technology and change management. It outlines conclusions, and recommendations drawn from the statistical analyses conducted in this research.

4. Conclusions

Based on the findings presented, the following conclusions were reached to address the research questions and the hypotheses of the study:

1. The Philippine rural banks have established a functional but technically constrained level of digital maturity. While the overall assessment of "*Adopted*" confirms compliance with the BSP National Strategy for Financial Inclusion 2022–2028, there is a clear imbalance between high-level regulatory literacy and the actual technical foundation. The "*Highly Adopted*" status of consumer protection contrasts with the lower-rated digital infrastructure, concluding that while banks are legally ready to protect data, their core systems still lack the scalability required for full-speed digital service delivery.
2. Change management is actively implemented but lacks long-term organizational consistency. The banks demonstrate strong proficiency in the "*action*" phases of transformation, particularly in implementation and training execution. However, the lower mean in "*Institutionalization*" indicates that digital habits have not yet become a permanent "*second nature*" for all employees and banking leaders, concluding that the transition remains a project-based effort rather than a deeply embedded cultural norm.

3. Technological adoption and organizational agility are deeply interdependent. The rejection of the null hypothesis (H_{01}) proves a strong, positive correlation between the level of fintech adoption and the effectiveness of the change management process. This concludes that as rural banks mature in their adoption of digital tools—especially through governance and regulatory alignment—their internal ability to communicate and manage organizational shifts improves significantly
4. Strategic alignment with national policy is the primary driver of organizational impact. Regression analysis reveals that alignment with BSP digitalization policies is the most significant predictor for fostering readiness, urgency, and communication. This leads to the conclusion that a clear regulatory mandate is currently a more effective trigger for organizational change in rural banks than the mere presence of technical infrastructure or cybersecurity protocols.
5. Sustainable compliance necessitates a transition from reactive implementation to proactive institutionalization. The findings across all research questions conclude that for rural banks to thrive before the 2028 NSFI deadline, they must move beyond “*Highly Adopted*” status by addressing the infrastructure bottleneck and reinforcing digital habits and the proposed business transformation roadmap. Success depends on a balanced strategy that pairs technical core upgrades with human-centric cultural shifts.

4.2 Recommendations

To address the conclusions above, the following five sets of recommendations are offered to ensure that Philippine Rural Banks achieve sustainable digital transformation and robust change management based on the study's conclusions.

1. Rural banking leaders should prioritize core system modernization by allocating specific capital budgets for upgrading legacy core banking systems to support cloud computing or hybrid infrastructure, and API-based integration, as digital infrastructure was identified as the primary technical hurdle. Also, strengthening bottom-up feedback loops through digital change champions within departments will ensure that process adjustments are grounded in actual user experience rather than solely top-down mandates.
2. To overcome the hurdle of institutionalization, decision makers should strengthen their culture and transition from short-term to long-term reinforcement by tying digital proficiency to performance indicators and career advancement. Establishing “*Digital Change Champions*” within departments will help ground process adjustments in actual user experience rather than solely top-down mandates.
3. The rural banking industry should standardize digital onboarding and KYC procedures through collaboration with other banks and to reduce operational friction. Engaging in inter-bank benchmarking regarding change management best practices will allow institutions to learn from peers who have successfully achieved high levels of staff buy-in.
4. The Bangko Sentral ng Pilipinas should develop a rural bank-specific digital sandbox that allows smaller institutions to test inclusive digital services without the immediate burden of full-scale compliance costs. Facilitating partnership frameworks between rural banks and fintech enablers can lower the cost of entry for the sophisticated tools mandated by national policy.
5. Customers are also encouraged to provide consistent feedback to rural banks through digital mechanisms, as user data is a critical driver for refining internal bank processes. For Future customers, particularly the youth in rural areas, should adopt a “*digital-first*” financial habit by seeking out institutions that offer robust online services to benefit from the speed and accessibility of inclusive digital finance
6. Future researchers should employ longitudinal research designs to evaluate the culmination of the NSFI leading up to the 2028 deadline providing empirical evidence on whether the rural banking sector successfully met the national targets for inclusive digital finance. It is recommended to conduct post-2028 sustainability assessments to determine if current change processes mature into “*Fully Institutionalized*” and “*Highly Adopted*” operational standards once the immediate regulatory pressure subsides. The proposed activities for business transformation roadmap may use to support the academe and investigate the efficiency and effectiveness of the future-proof banking.

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