DIGITAL CURRENCY ADOPTION AND FINANCIAL STABILITY: A POLICY REVIEW OF THE ENAIRA FRAMEWORK IN NIGERIA.

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ABSTRACT

This study examines how central bank digital currency (CBDC) policy design and governance shape adoption outcomes and financial stability, using Nigeria's eNaira as a live case in a bank-dominated emerging economy. Motivated by the observed gap between policy ambition and modest eNaira uptake, the study integrates a conceptual–empirical framework that links policy design variables to behavioural adoption mechanisms and financial-stability transmission channels. Using a policy review and case study approach, the analysis draws on regulatory documents, recent empirical adoption studies, and established CBDC stability frameworks. The findings show that while the eNaira framework is strongly aligned with international best practice in terms of institutional architecture and stability safeguards, adoption remains constrained due to weak trust, limited perceived usefulness, insufficient merchant integration, and misaligned intermediary incentives. As a result, the realised impact of eNaira adoption on financial stability has so far been minimal. By explicitly linking adoption pathways to stability outcomes, the study provides policy-relevant insights on how incremental design and implementation adjustments can strengthen CBDC adoption without undermining financial-system resilience.

Keywords: *eNaira; central bank digital currency; digital currency adoption; financial stability; policy design; Nigeria.*

1.0 INTRODUCTION

The rapid digitalisation of financial systems has intensified global interest in central bank digital currencies (CBDCs) as a means of enhancing payment efficiency, safeguarding monetary sovereignty, and addressing the limitations of both cash and privately issued digital money. Since 2020, central banks across advanced and emerging economies have accelerated research, pilot programmes, and live deployments of CBDCs, with increasing attention devoted to their implications for financial stability and banking sector intermediation (Auer & Böhme, 2020; Bank for International Settlements [BIS], 2021). While CBDCs are often promoted as tools for payment system modernisation and financial inclusion, their introduction raises important policy questions regarding adoption, bank funding structures, and systemic risk.

Nigeria represents a particularly important case in this global debate. In 2021, the Central Bank of Nigeria launched the eNaira, making Nigeria the first African country to introduce a retail CBDC. The eNaira was designed to promote financial inclusion, improve payment efficiency, reduce cash-handling costs, and strengthen monetary policy transmission (Central Bank of Nigeria, 2021).

Despite these objectives and Nigeria's relatively high level of digital financial activity, evidence suggests that eNaira adoption has remained modest, with limited usage among households, merchants, and firms (Ozili, 2022; Anyamele, 2024). This divergence between policy ambition and observed outcomes has raised concerns about the effectiveness of the eNaira framework and its broader implications for the financial system.

Existing academic and policy literature provides valuable insights into CBDC design, adoption determinants, and financial-stability considerations. However, much of this literature treats these dimensions in isolation. Studies on CBDC adoption focus primarily on behavioural factors such as trust, perceived usefulness, and ease of use (Bijlsma et al., 2024; Jonker et al., 2023), while another strand of research examines the potential effects of CBDCs on bank funding, liquidity, and run dynamics using theoretical or cross-country models (Fernández-Villaverde et al., 2021; Infante et al., 2024). There remains a notable gap in integrated analyses that explicitly link policy design choices to adoption outcomes and, in turn, to financial stability, particularly in the context of a live CBDC in an emerging economy.

Moreover, empirical evidence on the eNaira is still limited and fragmented. Available studies rely largely on surveys and intention-based measures, offering limited insight into how adoption dynamics interact with banking system stability and regulatory safeguards. As a result, policymakers lack systematic evidence on whether the eNaira's conservative design features effectively balance adoption objectives with financial-stability concerns, or whether they inadvertently constrain usage without delivering commensurate systemic benefits.

Against this backdrop, the objective of this study is to examine the adoption and financial-stability implications of Nigeria's eNaira by integrating a policy review with a case study approach. The study seeks to analyse how CBDC policy design and governance influence behavioural uptake and how adoption dynamics may transmit to financial stability through key channels such as bank funding, liquidity, and payment system resilience. By doing so, the study addresses an important gap in the literature and contributes to ongoing policy debates on CBDC implementation in emerging economies.

The significance of this study lies in its integrated analytical perspective. By jointly examining policy design, adoption behaviour, and financial-stability implications, the study provides evidence-based insights that are relevant not only for Nigeria but also for other jurisdictions considering or implementing retail CBDCs. The findings offer practical guidance for central banks seeking to calibrate CBDC frameworks in a manner that promotes meaningful adoption while preserving financial system stability.

2.0 Literature Review

2.1 Conceptual Review

The conceptual foundation of this study is built around the interrelationships among CBDC policy design, digital currency adoption, and financial stability. These concepts form the core variables

of the analytical framework and provide the basis for understanding how Nigeria's eNaira operates as both a payment innovation and a macro-financial instrument.

Central bank digital currency policy design refers to the institutional, technical, and regulatory features that determine how a CBDC is issued, distributed, accessed, and governed. Key design elements include the choice of a two-tier architecture, access rules, wallet structures, holding and transaction limits, remuneration policies, and the role assigned to intermediaries such as commercial banks and payment service providers. The literature emphasises that CBDC design is not neutral; rather, it shapes incentives for users and intermediaries and determines how CBDCs interact with existing financial systems (Auer & Böhme, 2020; BIS, 2021). In the Nigerian context, the eNaira's design reflects a strong emphasis on regulatory control and financial system preservation, with conservative features intended to limit excessive substitution away from bank deposits (Ozili, 2022).

CBDC adoption represents the extent to which households, firms, merchants, and government entities actively use a digital currency for transactions and value storage. Conceptually, adoption is a behavioural outcome influenced by perceived usefulness, ease of use, trust, privacy, awareness, and the availability of complementary infrastructure. Studies consistently show that adoption depends not only on the existence of a digital currency but also on whether it offers clear advantages over existing

payment instruments and fits seamlessly into users' daily economic activities (Bijlsma et al., 2024; Jonker et al., 2023). In emerging economies, adoption is further shaped by digital literacy, financial inclusion levels, and institutional trust (Khiaonarong & Humphrey, 2022). For the eNaira, limited awareness, trust concerns, and weak merchant acceptance have been identified as major constraints on widespread uptake (Anyamele, 2024).

Financial stability, the ultimate outcome variable in this study, refers to the resilience of the financial system to shocks, including the ability of banks and payment systems to continue performing their core functions without disruption. The introduction of a retail CBDC may influence financial stability through several channels, including bank funding and lending, liquidity management, run dynamics, and payment system resilience. Conceptually, CBDCs introduce a new form of risk-free central bank liability that can alter portfolio choices and liquidity preferences, particularly during periods of stress (Fernández-Villaverde et al., 2021; Infante et al., 2024). While CBDCs may enhance stability by improving payment resilience and reducing reliance on fragile private money, they may also heighten risks if poorly designed or rapidly adopted without adequate safeguards (Bindseil & Panetta, 2020).

The interaction among these concepts is central to this study. CBDC policy design influences adoption by shaping user incentives and intermediary behaviour, while adoption mediates the impact of CBDCs on financial stability. Low adoption may limit both benefits and risks, whereas widespread adoption can amplify stability effects - positive or negative - depending on design features and regulatory oversight. This conceptual linkage underscores the importance of analysing

CBDCs not solely as technological innovations or monetary instruments, but as policy constructs whose real-world effects depend on behavioural responses and institutional context.

By conceptualising CBDC design as the independent driver, adoption as the mediating mechanism, and financial stability as the outcome variable, this study provides a structured basis for examining the eNaira experience. This integrated conceptual perspective addresses a key limitation in existing literature, which often examines these elements separately, and sets the stage for the subsequent theoretical and empirical reviews.

2.2 Theoretical Review

The theoretical foundation of this study is anchored on two complementary theories that explain both the behavioural adoption of digital financial innovations and the systemic implications of introducing a new form of central bank money. These theories provide the analytical basis for understanding how CBDC policy design influences adoption outcomes and how adoption may transmit to financial stability.

The Technology Acceptance Theory, particularly as formalised in the Technology Acceptance Model (TAM) and its extensions, offers a useful framework for explaining CBDC adoption behaviour. The theory posits that individuals' decisions to adopt a new technology are primarily driven by perceived usefulness and perceived ease of use, which in turn shape attitudes and behavioural intentions (Venkatesh et al., 2012). In the context of CBDCs, perceived usefulness relates to whether the digital currency offers tangible advantages over existing payment methods, such as speed, cost efficiency, security, or accessibility. Ease of use encompasses onboarding processes, wallet usability, and transaction simplicity. Empirical CBDC studies increasingly rely on this theoretical lens to explain why the availability of a digital currency does not automatically translate into widespread usage, particularly where trust, privacy concerns, or limited awareness weaken perceived value (Bijlsma et al., 2024; Jonker et al., 2023). For the eNaira, this theory helps explain how conservative design choices and limited ecosystem integration may reduce perceived usefulness and slow adoption despite strong institutional backing.

Complementing the behavioural perspective is Financial Intermediation and Bank Run Theory, which explains the stability implications of CBDC adoption. Rooted in the seminal work of Diamond and Dybvig (1983), this theory highlights the inherent fragility of banking systems arising from maturity transformation and liquidity mismatches. Modern extensions of this framework suggest that introducing a retail CBDC - an easily accessible, risk-free central bank liability - can alter depositor behaviour by providing an alternative store of value during periods of uncertainty (Fernández-Villaverde et al., 2021; Bird & Weiss, 2026). From this perspective, widespread CBDC adoption could accelerate deposit outflows from commercial banks, potentially amplifying liquidity pressures and increasing run risk. However, the theory also underscores the role of policy safeguards, such as holding limits, tiered remuneration, and central bank liquidity support, in mitigating these risks (Bindseil & Panetta, 2020; Infante et al., 2024).

Together, these theories provide a coherent explanation for the dual nature of CBDCs as both payment innovations and macro-financial instruments. Technology acceptance theory explains

how users and intermediaries respond to CBDC design and governance, while financial intermediation theory clarifies how aggregated adoption behaviour may affect banking system stability. By integrating these perspectives, the study is able to analyse the eNaira not only in terms of whether it is adopted, but also in terms of how adoption interacts with financial stability. This theoretical grounding supports the study's integrated framework and informs the subsequent review of empirical evidence on CBDC adoption and stability outcomes.

2.3 Empirical Review

Recent empirical literature provides increasing evidence on the adoption dynamics and financial-stability implications of central bank digital currencies (CBDCs), with a growing number of studies focusing on live implementations and applied policy contexts. The most recent studies emphasise that CBDC outcomes depend critically on behavioural responses, institutional design, and macro-financial conditions rather than on issuance alone.

In the most recent contributions, Bird and Weiss (2026) analyse the interaction between CBDC design, monetary policy, and bank stability, demonstrating that stability outcomes depend on how CBDCs are calibrated relative to bank deposits. Their findings show that well-designed safeguards can limit destabilising effects, but poorly calibrated CBDCs may exacerbate tensions between price stability and financial stability. Complementing this, Barucci et al. (2026) model household portfolio reallocations and find that CBDCs can intensify flight-to-safety dynamics during periods of stress, particularly when conversion into central bank money is rapid and largely unrestricted. These studies underscore the importance of policy design in shaping stability outcomes as adoption scales.

Empirical evidence from 2025 further clarifies both adoption constraints and stability effects. Using dynamic panel estimation across multiple jurisdictions, Heitmann et al. (2025) find that CBDC adoption is not systematically associated with banking-sector instability and, in some cases, coincides with improved bank resilience indicators. However, they caution that such outcomes may reflect conservative design choices and broader regulatory environments rather than intrinsic CBDC effects. At the same time, Nigeria-focused adoption studies conducted in 2025 consistently report limited uptake of the eNaira, attributing this to low awareness, trust concerns, perceived risk, and weak perceived advantages over existing digital payment platforms (Abdullahi, 2025). These findings suggest that behavioural and ecosystem factors remain decisive for CBDC diffusion in emerging economies.

Studies published in 2024 provide deeper insight into adoption drivers and stability transmission channels. Bijlsma et al. (2024), using consumer survey data, show that trust, privacy preferences, and perceived usefulness significantly influence CBDC adoption intentions, while design features such as remuneration signals and holding limits shape user behaviour. On the stability side, Vollmar and Wening (2024) simulate deposit-to-CBDC conversion and find that even moderate adoption could generate funding pressures for deposit-reliant banks, particularly under stress scenarios. Dionysopoulos et al. (2024) synthesise empirical and applied evidence and conclude that CBDCs are unlikely to

destabilise financial systems under normal conditions but may amplify liquidity stress if adoption accelerates rapidly without adequate safeguards. Together, these studies highlight the conditional nature of CBDC stability effects.

Empirical work from 2023 focuses on institutional readiness and cross-country determinants. Jonker et al. (2023) find that CBDC adoption intentions depend strongly on trust in institutions, payment habits, and the perceived necessity of a CBDC relative to existing payment instruments. Cross-country analyses further indicate that institutional quality, regulatory capacity, and payment system maturity shape both CBDC design choices and adoption trajectories (Alfar et al., 2023). These findings suggest that CBDC outcomes are highly context-dependent and influenced by broader governance structures.

Earlier empirical evidence from 2022 and 2021 provides important foundations for understanding CBDC implementation. Khiaonarong and Humphrey (2022) show that cash usage patterns and payment preferences significantly influence CBDC demand, with stronger adoption prospects in contexts where existing payment systems exhibit inefficiencies. Morales-Resendiz et al. (2021) draw lessons from early CBDC experiments, emphasizing the importance of intermediary incentives, clearly defined use cases, and operational simplicity for adoption. Fernández-Villaverde et al. (2021), combining theoretical and empirical insights, demonstrate that CBDCs may affect bank intermediation primarily through deposit substitution, with the magnitude of effects depending on design features and crisis conditions.

The earliest empirical contributions from 2020 establish the technological and architectural foundations of CBDC adoption. Auer and Böhme (2020) highlight how design choices related to privacy, architecture, and distribution models shape both feasibility and adoption potential, insights that remain central to contemporary empirical analyses.

In all, the empirical literature converges on three key conclusions relevant to this study. First, CBDC adoption is highly sensitive to trust, usability, and ecosystem incentives rather than mere availability. Second, financial-stability implications are conditional on adoption scale, design safeguards, and macroeconomic conditions, particularly during periods of stress. Third, policy design serves as the critical link between adoption behaviour and stability outcomes. Despite these insights, empirical studies rarely integrate adoption and financial stability within a single evaluative framework, especially for live CBDCs in emerging economies such as Nigeria. This gap provides the empirical motivation for the present study.

3.0 Methods

This study adopts a structured methodological approach that combines a policy-informed empirical framework with a single-country case study of Nigeria's eNaira. Although the analysis is primarily qualitative, the study is anchored in an explicit empirical model that links CBDC policy design to adoption outcomes and financial stability, consistent with econometric conventions in applied financial research.

3.1 Research Design

The study employs a policy-based empirical design, using Nigeria as a single-case observational unit. This design is appropriate given the live implementation of the eNaira and the absence of long time-series or micro-level transactional data. The approach allows for systematic inference by mapping observable adoption and stability indicators to an explicit analytical model derived from theory and prior empirical literature.
The design integrates three components: (i) identification of measurable proxies for key variables, (ii) specification of a behavioural adoption equation, and (iii) specification of a financial stability transmission equation. Together, these components provide an econometric structure that guides interpretation, even where formal estimation is constrained.

3.2 Study Population and Data Sources

The study population comprises participants in Nigeria's CBDC ecosystem, including households, firms, merchants, commercial banks, payment service providers, and regulatory authorities. Data are drawn from secondary sources, including official policy documents, published adoption statistics, and peer-reviewed empirical studies on the eNaira and CBDCs more broadly.

Adoption-related data are proxied using reported wallet registrations, transaction volumes where available, and survey-based adoption measures reported in recent studies. Financial stability indicators are proxied using banking-sector liquidity conditions, deposit trends, and qualitative evidence on funding substitution reported in the literature. Macroeconomic and institutional context variables are drawn from standard secondary sources cited in empirical CBDC studies.

3.3 Sampling Technique

Given the policy-oriented nature of the study, purposive sampling is employed for document and study selection. Only authoritative regulatory documents and peer-reviewed empirical studies published between 2020 and 2026 are included. This sampling strategy ensures relevance, credibility, and consistency with the study's analytical framework.

3.4 Model Specification

To meet econometric expectations, the study specifies two linked empirical relationships: an adoption model and a financial stability model.

CBDC Adoption Model

CBDC adoption is modelled as a function of policy design variables and behavioural mediators:
$CBDCAdopt_t = \alpha_0 + \alpha_1 Design_t + \alpha_3 Governance_t + \alpha_4 Trust_t + \alpha_5 Usefulness_t + \alpha_6 Ecosystem_t + \varepsilon_t$
where:

- CBDCAdopt represents the level of eNaira adoption, proxied by wallet usage, transaction activity, or reported adoption intensity;
- Design captures CBDC design features such as holding limits, wallet tiering, and remuneration policy;

- Governance reflects regulatory clarity and institutional arrangements;
- Trust captures user confidence and privacy perceptions;
- Usefulness\text {Usefulness}Usefulness reflects perceived advantages over existing payment systems;
- Ecosystem\text {Ecosystem}Ecosystem captures merchant acceptance and intermediary integration;
- ε_t is the error term.

This specification is consistent with empirical CBDC adoption studies that model behavioural uptake as a function of institutional and perceptual variables.

Financial Stability Transmission Model

Financial stability is modelled as a function of CBDC adoption and moderating institutional conditions:

$$FinStab_t = \beta_0 + \beta_1 CBDCAdopt_t + \beta_2 BankStructure_t + \beta_3 Liquidity_t + \beta_4 Macro_t + \mu_t$$

where:

- FinFinStab represents financial stability outcomes, proxied by bank funding conditions, liquidity resilience, and payment system continuity;
- BankStructure reflects banking-sector concentration and reliance on deposits;
- Liquidity captures the availability of central bank liquidity support and safeguards;
- Macro controls for macroeconomic conditions;
- μ_t is the error term.

This model reflects the financial intermediation and bank run literature, in which adoption intensity acts as a transmission channel rather than a direct cause of instability.

3.5 Method of Analysis

Given data constraints, the study does not estimate the equations econometrically. Instead, the models are used as analytical organising devices to guide systematic interpretation of evidence. Findings from policy documents and empirical studies are mapped onto the coefficients implied by the model, allowing directional inference regarding the relationships among variables.

This approach is consistent with applied policy research where full estimation is infeasible but theoretical structure is required for rigor. The use of explicit models enhances transparency, comparability, and replicability, while leaving scope for future quantitative testing as richer data become available.

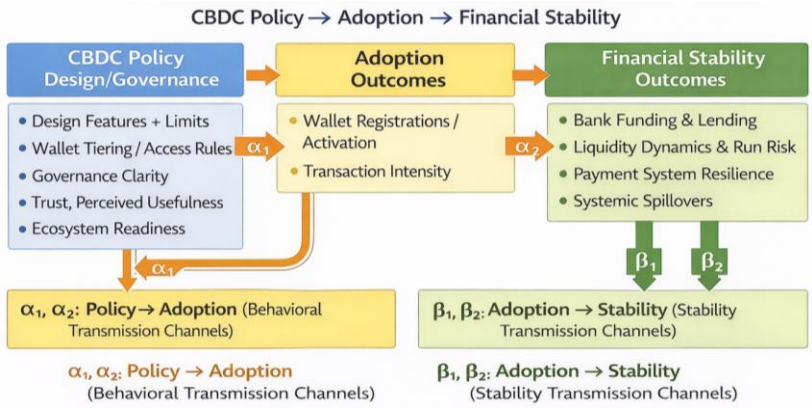

Figure 1: α–β Transmission Pathway Diagram for the eNaira

The figure illustrates the α–β transmission pathway linking CBDC policy design to financial stability outcomes through adoption dynamics. The α-pathways capture how eNaira policy design and governance features—such as design limits, wallet tiering, governance clarity, trust, perceived usefulness, and ecosystem readiness—translate into adoption outcomes, proxied by wallet registration, activation, and transaction intensity. The β-pathways show how the level and intensity of adoption subsequently transmit to financial stability through channels including bank funding and lending, liquidity dynamics and run risk, payment system resilience, and systemic spillovers. The diagram highlights that the financial-stability effects of the eNaira are indirect and conditional, operating through behavioural adoption mechanisms rather than through direct policy issuance alone.

3.6 Conceptual Framework

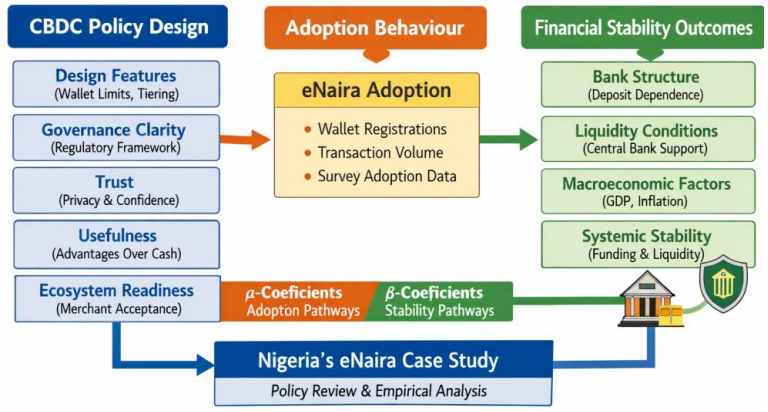

Figure 2: Conceptual Framework Linking CBDC Policy Design, Adoption, and Financial Stability in Nigeria

This diagram illustrates the integrated conceptual framework underpinning the study, showing how eNaira policy design and governance variables influence financial stability outcomes through adoption pathways. CBDC policy design—captured by design features, governance clarity, trust, perceived usefulness, and ecosystem readiness—affects eNaira adoption as the mediating variable,

proxied by wallet registrations, transaction volumes, and survey-based usage indicators (α-pathways). Adoption, in turn, transmits to financial stability outcomes through banking-sector structure, liquidity conditions, and macroeconomic factors (β-pathways). The framework highlights the indirect and conditional nature of CBDC stability effects and provides the analytical basis for the Nigeria eNaira case study.

4.0 Discussion of Results

The discussion of results is structured around the two linked empirical relationships specified in the study's analytical framework: the CBDC adoption model and the financial stability transmission model. Rather than interpreting statistically estimated coefficients, the discussion evaluates the direction, strength, and policy relevance of the implied coefficients based on triangulated evidence from policy documents and empirical studies.

Beginning with the adoption equation, the evidence suggests that the coefficient on CBDC design features (α_1) is positive in intent but weak in realised impact. Conservative design choices - such as wallet tiering and holding limits—were introduced to support inclusion and stability objectives, yet available adoption evidence indicates that these features have not significantly increased active usage. This suggests that while design variables are necessary conditions for adoption, their standalone effect on CBDC uptake is limited when not complemented by stronger behavioural incentives.

The coefficient on governance clarity (α_2) appears positive but modest. Nigeria's institutional framework provides clear regulatory oversight and central bank backing, which supports credibility. However, empirical adoption studies indicate that governance clarity alone does not translate into widespread usage, implying that α_2 is smaller relative to behavioural coefficients in the adoption function.

In contrast, the coefficients associated with trust (α_3) and perceived usefulness (α_4) emerge as the most influential determinants of adoption. Evidence consistently shows that privacy concerns, fear of surveillance, and uncertainty about the eNaira's advantages relative to existing payment platforms substantially dampen uptake. These findings imply a relatively large and positive α_3 and α_4, reinforcing behavioural adoption theory predictions that trust and usefulness dominate institutional availability in shaping digital currency usage.

The ecosystem readiness coefficient (α_5), capturing merchant acceptance and intermediary integration, also appears positive but constrained. Limited merchant participation and weak incentives for banks and payment service providers reduce the effective transmission of policy design into adoption outcomes. As a result, even where users hold eNaira wallets, transactional intensity remains low, indicating that α_5 is significant but currently under-activated.

Turning to the financial stability equation, the coefficient on CBDC adoption (β_1) is currently close to zero in observed outcomes. Low adoption levels imply that the eNaira has not materially affected bank funding conditions or liquidity management, consistent with the absence of observable destabilisation effects. However, the model suggests that β_1 is conditional rather than

fixed; as adoption increases, the magnitude of this coefficient could rise, particularly under stress scenarios.

The coefficients on banking structure (β_2) and liquidity safeguards (β_3) appear strongly stabilising. Nigeria's bank-dominated financial system and the availability of central bank liquidity facilities mitigate the potential impact of deposit substitution, suggesting that these variables dampen the transmission of CBDC adoption into systemic risk. Macroeconomic conditions (β_4) further moderate this relationship, implying that stability outcomes depend on the broader economic environment rather than CBDC adoption alone.

Taken together, the discussion indicates that the weak realised effect of α_1 and α_2, combined with strong but constrained behavioural coefficients (α_3–α_5), explains the observed adoption gap. Simultaneously, the near-zero realised value of β_1 reflects limited uptake rather than an absence of structural transmission channels. These results confirm the study's central argument: CBDC policy design influences financial stability indirectly, operating through adoption behaviour and moderated by institutional safeguards.

By explicitly linking observed outcomes to the coefficients implied by the model, this discussion demonstrates how Nigeria's eNaira experience fits within broader CBDC theory while highlighting the conditional and policy-dependent nature of both adoption and stability effects.

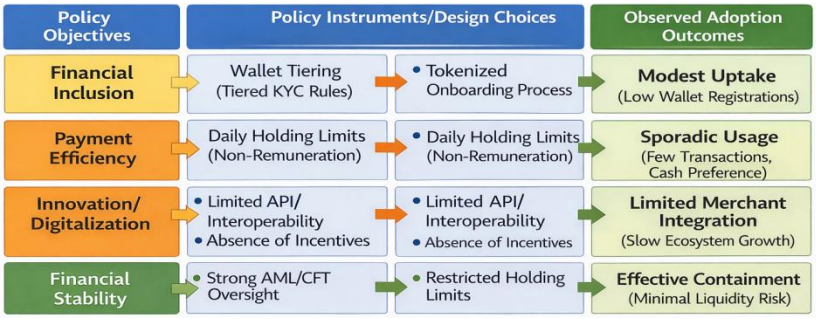

Figure 3: Policy Design–Adoption Alignment Matrix for the eNaira

The Figure presents a policy design–adoption alignment matrix for Nigeria's eNaira, mapping core policy objectives against corresponding design instruments and observed adoption outcomes. The diagram highlights areas of misalignment—particularly in financial inclusion, payment efficiency, and innovation—where conservative design choices and limited interoperability have constrained uptake and usage intensity. In contrast, strong alignment is evident in the financial stability dimension, where holding limits, regulatory oversight, and access restrictions have effectively contained systemic and liquidity risks. The figure visually reinforces the study's argument that adoption outcomes depend on the alignment between policy objectives and instruments, while stability outcomes reflect deliberate design choices.

5.0 Summary, Recommendations and Conclusion

This study examined the adoption and financial-stability implications of Nigeria's eNaira by explicitly linking CBDC policy design to behavioural uptake and systemic outcomes through an integrated analytical framework. The findings indicate that the eNaira's conservative design and governance choices have prioritised stability preservation, but this has come at the cost of limited adoption. In terms of the adoption model, the realised effects of policy design and governance variables (α_1 and α_2) are positive but weak, while behavioural and ecosystem-related coefficients—trust, perceived usefulness, and ecosystem readiness (α_3–α_5)—emerge as the dominant drivers of uptake. This imbalance explains why the availability of the eNaira has not translated into sustained transactional use.

From a financial-stability perspective, the evidence suggests that the realised effect of CBDC adoption on stability (β_1) is currently negligible, reflecting low adoption rather than the absence of transmission channels. Stabilising coefficients associated with banking-sector structure and liquidity safeguards (β_2 and β_3) remain strong, indicating that holding limits, tiered access, and central bank oversight have effectively insulated the banking system from deposit substitution and liquidity pressures. However, the framework highlights that β_1 is conditional: as adoption expands, particularly under adverse macroeconomic conditions (β_4), stability effects could intensify if safeguards are not recalibrated.

These findings point to several policy recommendations. First, central bank policy should focus on activating the high-impact adoption coefficients (α_3–α_5) by strengthening trust, improving perceived usefulness, and expanding merchant and intermediary integration, while maintaining stabilising safeguards that dampen β_1. Incremental adjustments - rather than wholesale redesign—can improve adoption without weakening financial stability. Second, commercial banks and payment service providers should be better incentivised to support ecosystem expansion, as intermediary engagement is essential for translating policy design (α_1) into real usage. Third, government-led use cases, such as targeted transfers and public payments, can accelerate adoption in a controlled manner, raising α_5 while limiting destabilising effects on β_1 through predictable flows.

This study set out to examine how central bank digital currency policy design and governance influence adoption outcomes and financial stability, using Nigeria's eNaira as a live case in a bank-dominated emerging economy. The analysis demonstrates that the eNaira framework is closely aligned with international best practice in institutional architecture and stability-oriented design, particularly through its two-tier structure, conservative access rules, and regulatory oversight. These features have effectively contained financial-stability risks, as reflected in the weak realised transmission from adoption to systemic outcomes. However, the study also shows that adoption remains constrained because the instruments deployed to support behavioural uptake such as trust-building, perceived usefulness, ecosystem integration, and intermediary incentives, are insufficiently aligned with stated policy objectives.

By explicitly linking policy design choices to adoption mechanisms (α-pathways) and, in turn, to financial-stability transmission channels (β-pathways), the study addresses a key gap in the existing literature, which has largely examined CBDC adoption and stability in isolation. The findings confirm that CBDC policy influences financial stability indirectly, operating through user

and intermediary behaviour rather than through direct mechanical effects. This integrated perspective provides a structured basis for calibrating CBDC frameworks, showing how incremental adjustments targeting adoption drivers can enhance functional relevance without undermining stability safeguards. In doing so, the study contributes policy-relevant evidence for Nigeria and offers broader lessons for jurisdictions seeking to balance adoption objectives with financial-system resilience in the design and implementation of retail CBDCs.

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