

Toward a Framework for an enabling Fintech Ecosystem: A Qualitative Multiple-Case Study of Fintech Strategy, Regulation, and Platforms in Ghana

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Honor Pledge

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Contents

1. Introduction	1
1.1. Motivation	1
1.2. Scope of Work.....	1
1.3. Background.....	1
1.4. Thesis Structure	2
1.5. Research Question	3
2. Literature Review	4
2.1. Research Introduction.....	4
2.2. Synthesis	4
2.3. Key Regulatory Milestones: The 2015 and 2020 Reforms	10
2.3.1 The 2015 E-Money Issuer Guidelines: Enabling Non-Bank Entry.....	10
2.3.2 The 2020 Payment and Financial Technology Service Provider (PFTSP) Regime	11
2.4 Implications for This Study	12
2.5. Identification of Seminal Papers	13
2.6. Critical Integration and Identified Knowledge Gap.....	13
2.7. Chapter Summary	14
3. Research Design and Methodology	16
3.1. Chapter Introduction.....	16
3.2. Overall Research Approach.....	16
3.3. Design Science Research (DSR) Process.....	16
3.3.1. DSR Process Diagram	16
3.3.2. Explanation of the DSR Process Instantiation.....	17
3.4. Qualitative Multiple-Case Study	17
3.4.1. Case Selection.....	18
3.4.2 Unit of Analysis	18
3.5. Data Collection Plan.....	18
3.5.1 Participant Recruitment	18
3.5.2 Interview Process.....	18
3.5.3. Recording and Transcription	18
3.5.4. Documentary Evidence.....	19
3.6. Data Analysis Plan	19
3.7. Derivation of Aggregate Dimensions.....	19
3.8. Case Study Findings.....	23
3.8.1. Participant Sample Overview	23

3.8.2 Cross-Case Comparison with Participant Quotes	23
3.9 Artifact Description.....	27
3.9.1. The First Artifact: Grounded in Literature and Empirical Data	27
3.9.2. Refinement Through Expert Panel Feedback	28
3.9.3. The Final Artifact	28
3.10 Artifact Evaluation	30
3.10.1. Evaluation Strategy	30
3.10.2. Formative Evaluation Results	30
3.10.3. Summative Evaluation Results.....	33
3.11 Artifact Evaluation	33
3.12 Chapter Summary	34
4. Discussion.....	35
4.1. Contribution to Research.....	35
4.2. Contribution to Practice	36
4.3. Comparison of the Proposed Framework with Existing Literature	37
4.3.1. Comparison with Ng et al. (2023): From Strategic Options to Integrative Framework	37
4.3.2. Comparison with Senyo et al. (2022): From Ecosystem Practices to Strategic Dimensions.....	38
4.3.3. Comparison with de Reuver et al. (2018): From Platform Governance to Ecosystem Orchestration	39
4.3.4. Comparison with Ahiabenu (2022): From Regulatory Analysis to Strategic Alignment	39
4.4. Interpretation of Key Findings	40
4.4.1. The Universality of Co-opetition	40
4.4.2. Vertical Specialization as a Winning Strategy	41
4.4.3. Trust as the Foundational Currency	41
4.4.4. Culture as Competitive Advantage	42
4.4.5. The Future: AI, Cross-Border Interoperability, and Embedded Finance	43
4.5. Limitations and Transferability	43
4.6. Target Journals and Dissemination.....	44
5. Conclusion.....	45
5.1. Restatement of Research Aim and Questions	45
5.2. Summary of Key Findings	45
5.2.1 Regulatory Alignment (SQ1).....	45
5.2.2 Platform Ecosystem Orchestration (SQ2).....	45
5.2.3 Value Proposition and Trust Architecture	46
5.2.4 Strategic Capability Building	46

5.2.5 Category Leadership (PQ and SQ3)	46
5.3. The Conceptual Strategy Framework.....	46
5.4. Contribution to Knowledge	47
5.5. Limitations and Future Research	47
5.6. Final Reflections.....	47
6. References	49

List of Tables

Table 1: Summary of Systematic Search Trials.....	4
Table 3: Synthesis of Core Literature (9 Representative Papers from the Full Set of 32)	8
Table 4: Aggregate Dimensions of the Conceptual Strategy Framework.....	12
Table 5: 1st-order concepts (Stage 1).....	20
Table 6: 2nd-order Themes (Stage 2).....	20
Table 7: Aggregate Dimensions (Stage 3).....	21
Table 8: Participant Sample Overview.....	23
Table 9: Aggregate Dimension 1: Regulatory Alignment Mechanism	24
Table 10: Aggregate Dimension 2: Platform Ecosystem Orchestration	24
Table 11: Aggregate Dimension 3: Value Proposition and Trust Architecture.....	25
Table 12: Aggregate Dimension 4: Strategic Capability Building	26
Table 13: Aggregate Dimension 5: Market Context and Category Leadership	26
Table 14: Artifact Evaluation Strategy.....	30
Table 15: Expert Panel Composition.....	31
Table 16: Quantitative Ratings	31
Table 17: Qualitative Feedback	32
Table 18: Comparison with Ng et al. (2023)	38
Table 19: Comparison with Senyo et al. (2022)	38
Table 20: Comparison with de Reuver et al. (2018)	39
Table 21: Comparison with Ahiabenu (2022)	39
Table 22: Proposed Framework Adds	40

Table of Figures

Figure 1: PRISMA flow diagram (Page et al., 2021)	6
Figure 2: Author's design adapted DSR Process Model (Peffer et al., 2007)	17
Figure 3: Data Structure Diagram	22
Figure 4: Conceptual Strategy Framework for FinTech Category Leadership in Ghana.....	29

Abstract

Financial Technology (FinTech) innovations are reshaping financial services in emerging markets. Ghana has emerged as a regional leader, particularly in mobile money. However, FinTech firms face the dual challenge of navigating complex regulatory frameworks (Ahiabenu, 2022) and competing within multi-sided platform ecosystems (Reuver et al., 2018). This creates a significant strategic problem: despite a vibrant ecosystem, there is a lack of prescriptive understanding of how firms can systematically achieve and sustain category leadership.

To address this gap, this study developed a prescriptive strategy framework for FinTech category leadership in Ghana. It employed a Design Science Research (DSR) methodology (Hevner et al., 2004; Peffers et al., 2007) guided by the primary question: How can FinTech firms in Ghana design effective strategies to achieve category leadership by navigating regulatory frameworks and leveraging platform ecosystems? The DSR process was grounded in a qualitative multiple-case study (Yin, 2018) of eight FinTech firms across diverse segments, including telco-led dedicated electronic money issuers (DEMIs), payment service providers (PSP), digital credit providers, Agri-FinTech, identity/blockchain FinTech, and pan-African B2B FinTech. Data from semi-structured interviews, with an average duration of 54 minutes, were analyzed using the Gioia methodology (Gioia et al., 2012) and coded using NVivo software.

The core output is a Conceptual Strategy Framework for FinTech Category Leadership, integrating five aggregate dimensions derived from the cross-case analysis: Regulatory Alignment Mechanism, Platform Ecosystem Orchestration, Value Proposition and Trust Architecture, Strategic Capability Building, and Market Context and Category Leadership. The framework synthesizes strategic theories including the Resource-Based View (Barney, 1991), platform ecosystem theory (Reuver et al., 2018), and institutional perspectives (Ng et al., 2023) with empirical insights from the Ghanaian context.

Key findings reveal the universality of co-opetition with dedicated electronic money issuers, the importance of vertical specialization over horizontal ambition for emergent players, and the critical role of organizational culture and trust (transparency, reliability, recourse) as durable competitive advantages. Looking ahead, participants identified artificial intelligence, cross-border interoperability, and embedded finance as the next frontiers for category leadership.

The framework was validated through formative evaluation (member checking with six participants and expert panel review) and summative evaluation (retrospective case explanation and prospective scenario application). Expert panel ratings confirmed the framework's credibility (4/5), novelty (4/5), actionability (4/5), and clarity (4/5).

The research contributes to theory by demonstrating the application of DSR to strategic management and extending knowledge on platform strategy in emerging markets (Ng et al., 2023). For practice, it provides an actionable framework for entrepreneurs, regulators, and investors, offering guidance on ecosystem collaboration and regulatory engagement (Coffie & Zhao, 2023; Senyo et al., 2022) to foster a conducive environment for innovation and leadership.

Keywords: FinTech Strategy, Regulatory Frameworks, Ghana, Emerging Markets

1. Introduction

1.1. Motivation

Financial Technology (FinTech) innovations are reshaping financial services worldwide, offering new pathways for inclusion and competition. In Ghana, a vibrant FinTech ecosystem has emerged as a regional leader, especially in mobile money and digital finance. However, this rapid innovation poses significant challenges: regulators struggle to keep pace with technology-driven services, and incumbent institutions (banks, telecoms) vie with agile startups for market dominance. Category leadership in this context refers to becoming the dominant player in a new financial service category, which Ghanaian FinTech firms seek to achieve amid regulatory constraints and platform-based competition.

Prior studies indicate that central bank policies can either hinder or support FinTech adoption, underscoring the importance of regulatory strategy (Ahiabenu, 2022). For instance, Ghana's central bank introduced an E-Money Issuers policy in 2015 that recognized telecom operators as financial institutions, which dramatically accelerated mobile money adoption (Senyo et al., 2022). Such interventions highlight the delicate balance between regulation and innovation: policies must protect consumers and stability while enabling FinTech growth.

Despite Ghana's FinTech progress, there remains a knowledge gap in understanding how FinTech firms can systematically navigate regulatory frameworks and platform-based ecosystems to achieve sustained competitive advantage or category leadership. Traditional banking institutions, mobile network operators, and FinTech startups form a complex ecosystem where collaboration and competition coexist, creating a compelling research context.

1.2. Scope of Work

This research focuses specifically on the Ghanaian FinTech ecosystem, examining 3-5 case studies of FinTech firms or initiatives at different stages of market leadership. The study will investigate payment platforms, digital lending services, and mobile money providers that represent diverse approaches to achieving category dominance. The research is bounded by its focus on regulatory strategies, platform ecosystem dynamics, and strategic positioning mechanisms that enable category leadership.

The study excludes technical implementation details of FinTech solutions and focuses instead on the strategic and governance aspects. While the findings may have implications for other emerging markets, the primary context is Ghana's unique regulatory and market environment.

1.3. Background

Ghana's FinTech landscape has evolved through three distinct regulatory phases, each shaping the strategic opportunities and constraints for market participants. The first phase, spanning from 2008 to 2015, was characterized by constrained innovation. Initial mobile money operations were restricted by the 2008 branchless banking regulations, which required telecom providers to act solely as agents of licensed banks (Senyo et al., 2022). Under this framework, telcos could not

operate independently; they could only facilitate transactions on behalf of banks. This arrangement significantly slowed FinTech uptake due to bank resistance, as traditional banks viewed telcos' financial services as a direct threat to their core business of deposit-taking and payment processing. The result was a fragmented, slow-moving ecosystem where innovation was stifled by incumbent gatekeepers.

Recognizing the impediment created by this restrictive framework, the Bank of Ghana revised its policies, ushering in a second phase of regulatory recalibration from 2015 to 2020. This period culminated in the 2015 E-Money Issuer Guidelines, a landmark regulation that allowed telcos to operate with greater operational independence by recognizing them as legitimate financial service providers, while still maintaining banks as custodial partners responsible for safeguarding customer funds. This regulatory shift proved transformative. Mobile money usage surged as telcos could now offer services directly to consumers, yet incumbent banks were still ensured a role in the ecosystem through their custodial function (Coffie & Zhao, 2023). This phase created the foundation for Ghana's emergence as a regional FinTech leader.

The current phase, from 2020 to the present, is defined by ecosystem maturation and increasing complexity. The landscape now features a complex interplay of multiple actor types: traditional banks seeking to digitize their services, telecom companies leveraging their massive subscriber bases, agile FinTech startups introducing specialized solutions, and government initiatives driving digital public infrastructure. All operate within an evolving regulatory framework that continues to shape market outcomes and leadership opportunities. Key developments include the introduction of the Payment Service Provider licensing regime, the regulatory sandbox for testing innovative products, the mandatory Ghana Card linkage for all financial transactions, and ongoing interoperability requirements that force collaboration among competitors—a dynamic known as co-opetition. This study is situated within this mature but dynamic ecosystem, investigating how FinTech firms strategically navigate these regulatory and platform complexities to achieve category leadership.

1.4. Thesis Structure

The structure of the document will be as follows:

Chapter One: Introduction includes the background and motivation for the study, the scope of work, the evolution of Ghana's FinTech ecosystem, and the research questions (one primary and three secondary). It also defines key terms and presents the structure of the thesis.

Chapter Two: Literature Review gives a systematic review of existing literature on FinTech strategy, regulation, and platform ecosystems. It includes a summary of search trials, a PRISMA flow diagram, and a table synthesizing key contributions. The chapter concludes with a critical analysis and the explicit identification of the knowledge gap this study addresses.

Chapter Three: Research Design and Methodology presents the research strategy using the Design Science Research (DSR) approach integrated with a qualitative multiple-case study. It describes the case selection, data collection (semi-structured interviews, 32 LinkedIn messages, 8 participants, average 54 minutes), data analysis using the Gioia methodology and NVivo software, and the evaluation plan (formative and summative). The chapter also presents the case study findings and the proposed conceptual framework.

Chapter Four: Discussion interprets the key findings, including the universality of co-opetition, vertical specialization as a winning strategy, trust as the foundational currency, and culture as competitive advantage. It presents the theoretical and practical contributions, acknowledges limitations, and outlines dissemination plans.

Chapter Five: Conclusion gives the overall conclusion of the study, summarizes the key findings, restates the contributions to knowledge, and suggests potential avenues for future research.

1.5. Research Question

The central aim of this research is to develop a prescriptive strategy framework that explains and guides the achievement of category leadership within the complex, regulated environment of Ghana's FinTech ecosystem.

To achieve this aim, the study is guided by the following primary research questions and a set of secondary questions (SQ):

Primary Research Question (PQ):

How can FinTech firms in Ghana design effective strategies to achieve category leadership by navigating regulatory frameworks and leveraging platform ecosystems?

This primary question is inherently a "how" question, which aligns with the Design Science Research paradigm's objective of creating and evaluating a purposeful artifact—in this case, a conceptual strategy framework.

To deconstruct this primary question and guide empirical investigation and artifact development, the following secondary research questions (SQ) are proposed:

1. What are the key factors that constitute an enabling context for FinTech innovation and emergence in Ghana? (Secondary Question 1)
2. How do these factors interact to foster a prosperous FinTech ecosystem? (Secondary Question 2)
3. Based on these findings, what framework can be proposed to guide the development of such an innovation-conducive context? (Secondary Question 3)

2. Literature Review

2.1. Research Introduction

This chapter establishes the scholarly foundation for the study, bridging directly from the research problem defined in Chapter 1: the strategic challenge of achieving category leadership within Ghana's regulated FinTech ecosystem. To ensure rigor, transparency, and reproducibility—a key requirement for high-quality research—this review employs a systematic methodology.

The chapter is structured as follows: first, it details the systematic literature review (SLR) protocol; second, it synthesizes key contributions from the identified body of work; third, it analyzes the pivotal regulatory milestones that have shaped Ghana's FinTech landscape; fourth, it identifies seminal papers that provide theoretical and empirical anchors for the study; and finally, it concludes by explicitly defining the knowledge gap this research addresses. The chapter also explains the rationale for selecting nine core papers from the full set of 32 reviewed articles, ensuring transparency in the selection process.

2.2. Synthesis

A systematic approach was adopted to minimize bias and ensure a comprehensive survey of relevant academic work. The process followed established guidelines for SLRs and is reported to allow for replication. The methodology is designed to be transparent, reproducible, and rigorous—key requirements for establishing the credibility of the literature foundation upon which the artifact is built.

2.2.1. Search Strategy

To establish a comprehensive and reproducible foundation for this research, a systematic search of the literature was conducted in the Scopus and Web of Science (WoS) databases. The process aimed to identify the most relevant and high-impact peer-reviewed studies at the intersection of FinTech, regulation, and platform strategy within the Ghanaian context.

The search strategy employed iterative keyword strings combining terms related to the domain (*FinTech*, *financial technology*, *mobile money*), the geographic context (*Ghana*), and the core investigative themes (*regulation*, *policy*, *platform*, *ecosystem*, *strategy*). The search was limited to peer-reviewed articles published between 2015 and 2026 to capture the pivotal regulatory reforms (particularly the 2015 E-Money Issuer Guidelines) and the most contemporary scholarship available at the time of writing. The 2015 threshold was chosen because it marks the introduction of the E-Money Issuer Guidelines, a foundational regulatory milestone that transformed Ghana's FinTech landscape.

Table 1: Summary of Systematic Search Trials

Keywords (Search String)	Total Papers	Papers Kept	Date	Source
TITLE-ABS-KEY (context AND innovation AND fintech)	331	5	25 Oct 2025	Scopus
TITLE-ABS-KEY ("fintech" OR "financial technology") AND TITLE-ABS-KEY	10	6	19 Jan 2026	Scopus

("ecosystem" OR "platform*") AND TITLE-ABS-KEY ("Ghana")				
TITLE-ABS-KEY ("fintech") AND TITLE-ABS-KEY ("regulat*" OR "policy" OR "framework") AND TITLE-ABS-KEY ("Ghana") AND PUBYEAR > 2019 AND PUBYEAR < 2026	25	3	19 Jan 2026	Scopus
TITLE-ABS-KEY ("fintech" OR "mobile money") AND TITLE-ABS-KEY ("strategy" OR "innovation" OR "disruptive") AND TITLE-ABS-KEY ("Ghana") AND PUBYEAR > 2019 AND PUBYEAR < 2026	43	5	19 Jan 2026	Scopus
TITLE-ABS-KEY ("fintech") AND TITLE-ABS-KEY ("Ghana") AND TITLE-ABS-KEY ("qualitative" OR "multiple-case study" OR "case study") AND PUBYEAR > 2019 AND PUBYEAR < 2026	16	4	19 Jan 2026	Scopus
TS= ("fintech" OR "digital finance") AND TS= ("Ghana") AND TS= ("regulation" OR "platform" OR "ecosystem")	10	8	19 Jan 2026	WoS
TS= ("fintech") AND TS= ("Ghana") AND TS= ("financial inclusion" OR "trust")	15	6	19 Jan 2026	WoS
Total Records for Screening (after duplicate removal)	450			
Total Papers Kept		30		

Source: Author's compilation from Scopus and Web of Science searches (WoS)

The search results demonstrate a growing but focused corpus of literature on Ghana's FinTech landscape. The breadth of results confirms the relevance of the chosen keywords and the appropriateness of the selected databases for this study.

2.2.2. PRISMA Flow Diagram

Following the initial exploratory searches, a formal systematic selection process was undertaken, guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses framework to ensure transparency and rigor. The process, illustrated in Figure 1, began with 450 identified records from Scopus and Web of Science. After removing duplicates, 365 unique records were screened based on their titles and abstracts. Records were excluded if they were not peer-reviewed articles, were not focused on Ghana, or did not substantively address FinTech strategy, regulation, or platforms.

The full texts of the remaining 65 articles were assessed for eligibility against the following inclusion and exclusion criteria:

Inclusion Criteria: (I1) Peer-reviewed journal articles; (I2) Primary focus on FinTech/digital finance in Ghana; (I3) Explicit discussion of regulatory, strategic, or platform/ecosystem dimensions.

Exclusion Criteria: (E1) Non-peer-reviewed work; (E2) Focus on other geographical contexts without meaningful comparison to Ghana; (E3) Purely technical discussions without strategic,

managerial, or policy implications.

A further 35 articles were excluded at this stage with 18 for being off-topic, 8 for being non-peer-reviewed, and 9 for being purely technical in nature. This process resulted in 30 studies selected for in-depth synthesis. These 30 studies form the complete body of literature that informed the theoretical foundation of this research.

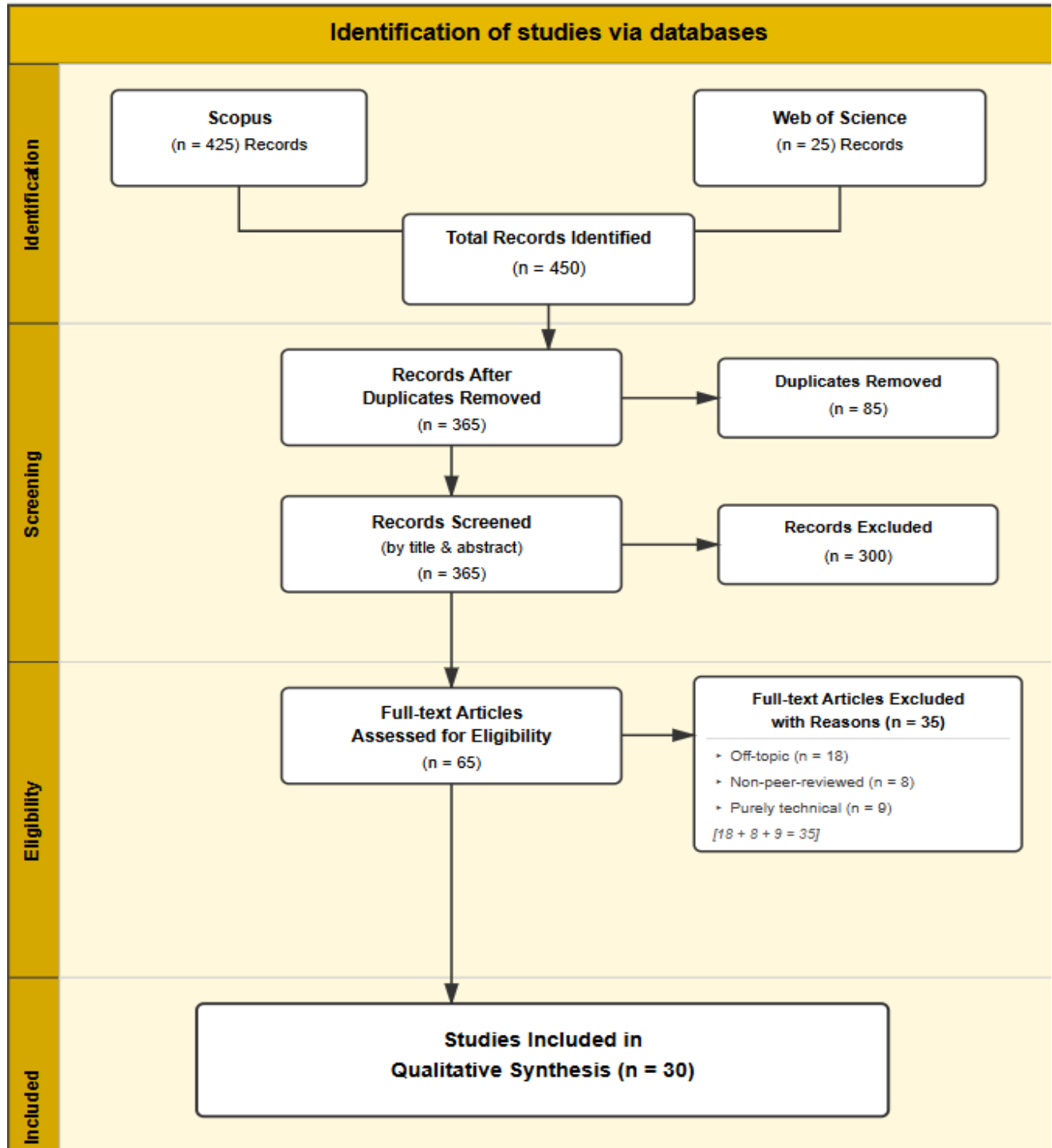


Figure 1: PRISMA flow diagram (Page et al., 2021)

2.2.3. Selection Rationale: From 30 to 9 Core Papers

A critical aspect of this literature review is the selection of nine core papers for detailed presentation in Table 3. This selection was not arbitrary; it was guided by a systematic rationale that balances depth with breadth.

Rationale for the Selection of 9 Core Papers:

The full set of 30 reviewed articles informed the narrative synthesis and critical integration sections of this chapter. However, presenting all 30 papers in a single table would be overwhelming and would dilute the focus on the most directly relevant contributions. The nine papers presented in Table 3 were selected based on four explicit criteria (Table 2):

Table 2: Selection Rationale

Criterion	Description	Application
Direct Relevance	Papers that most directly address the research questions (Primary Question, Secondary Question 1, Secondary Question 2, Secondary Question 3)	Papers with explicit focus on FinTech strategy, regulation, or platforms in Ghana
Methodological Quality	Peer-reviewed, high-ranking journals with rigorous methods	Papers published in journals with established reputations (e.g., <i>European Journal of Information Systems</i> , <i>Technological Forecasting and Social Change</i>)
Representativeness	Papers that represent the key thematic clusters identified in the review	At least one paper from each thematic cluster: regulation (Ahiabenu, 2022), platforms (Senyo et al., 2022; de Reuver et al., 2018), strategy (Ng et al., 2023; Barney, 1991), and context (Coffie & Zhao, 2023; Gomber et al., 2018)
Methodological Diversity	Papers that demonstrate different research approaches	Inclusion of case studies (Senyo et al., 2022; Coffie & Zhao, 2023), systematic reviews (Ng et al., 2023; de Reuver et al., 2018; Gomber et al., 2018), and theoretical papers (Barney, 1991; Hevner et al., 2004)

Papers Excluded from Table 2 but Used in the Narrative Synthesis:

The remaining 21 papers, while not individually presented in Table 2, were integrated into the narrative synthesis. These papers provided supporting evidence, contextual depth, and methodological insights. For example, studies on mobile money adoption (Apiors & Suzuki, 2023), financial literacy (Frimpong et al., 2022), and consumer engagement (Glavee-Geo et al., 2019) informed the understanding of customer trust and adoption dynamics, which are central to the Value Proposition and Trust Architecture dimension.

Methodological Papers:

It is important to note that methodological texts (e.g., Yin, 2018; Gioia et al., 2013) are not included in Table 3, as they are cited separately in Chapter 3 (Research Design and Methodology) to justify the research approach rather than to establish the substantive foundation for the artifact.

Table 3: Synthesis of Core Literature (9 Representative Papers from the Full Set of 30)

Authors & Year & Research Method	Key Contribution	Relevance to Research Questions	Future Research / Limitation
Ahiabenu, K. (2022), <i>Comparative Case Study</i>	Critically analyzes Ghana's FinTech regulatory framework, identifying gaps and comparing Ghana to Nigeria.	Secondary Question 1 (enabling context): Establishes that regulatory adaptability is a key factor—firms must navigate evolving policies. Primary Question (regulatory navigation): Shows that proactive engagement with policy changes is essential for leadership.	Focuses on CBDC policy, not broader FinTech ecosystem; calls for research on how firms strategically respond to regulation.
Senyo, P. K., Karanasios, S., Gozman, D., Baba, M. (2022), <i>Qualitative Case Study</i>	Identifies "protectionist and equitable" platform practices in Ghana's mobile money ecosystem, revealing how banks and telcos both compete and collaborate.	Secondary Question 2 (factor interaction): Provides empirical evidence that co-opetition is a central dynamic. Primary Question (platform leverage): Shows that successful firms manage this tension through formal agreements and service differentiation.	Study limited to Ghana; suggests examining user and agent perspectives on ecosystem practices.
Coffie, C. P. K., & Zhao, H. (2023), <i>Quantitative Case Study</i>	Demonstrates the proactive market development role of traditional banks	Secondary Question 2 (actor interactions): Reveals that incumbents (banks) are not passive; they actively shape ecosystem development. Primary	Uses quantitative methods; suggests qualitative follow-up to explore strategic

	as heterogeneous actors in the FinTech ecosystem.	Question (strategy design): Suggests that FinTechs must anticipate bank responses, not just telco responses.	motivations in depth.
Ng, E., Tan, B., Sun, Y., & Meng, T. (2023), <i>Systematic Literature Review</i>	Provides a theoretical framework of strategic options for FinTech platforms, focusing on institutional logics, legitimacy trade-offs, and ecosystem positioning.	Primary Question (theoretical lens): Offers the core vocabulary ("institutional logics," "legitimacy trade-offs") for analyzing category leadership. Secondary Question 3 (framework development): Provides theoretical building blocks for the artifact's dimensions.	A review paper; explicitly calls for empirical studies to test and extend its framework in specific contexts like Ghana.
de Reuver, M., Sørensen, C., & Basole, R. C. (2018), <i>Systematic Literature Review</i>	Establishes a foundational research agenda for digital platform governance, strategy, and architecture.	Secondary Question 2 (ecosystem dynamics): Provides core concepts (governance, architecture, competition) for analyzing platform ecosystems. Primary Question (platform leverage): Shows that platform strategy is distinct from traditional firm strategy.	Presents an agenda; requires empirical application and testing in contexts like emerging markets.
Barney, J. (1991), <i>Theoretical</i>	Formulates the Resource-Based View (RBV), theorizing firm resources as a source of sustained competitive advantage.	Secondary Question 3 (framework dimension): Theoretical anchor for the "Strategic Capability Building" dimension of the artifact. Primary Question (capabilities): Shows that internal resources (talent, culture, infrastructure) are as important as external positioning.	Foundation theory; requires contextual adaptation to dynamic, platform-based digital markets.
Gomber, P., Kauffman, R. J., Parker, C., & Weber, B. W. (2018), <i>Systematic Literature Review</i>	Provides a comprehensive overview of the FinTech revolution, its drivers, and its impact on financial services.	Primary Question (contextualization): Establishes the global FinTech phenomenon and its strategic importance, situating Ghana within broader trends. Secondary Question 1 (key factors): Identifies technology, regulation, and	Overview article; identifies need for more research on business models and strategy in specific markets.

		customer demand as key drivers of FinTech emergence.	
Hevner, A. R., March, S. T., Park, J., & Ram, S. (2004), <i>Theoretical</i>	Seminal guidelines for conducting rigorous Design Science Research (DSR) in Information Systems.	Methodological foundation: Justifies the Design Science Research approach to answer the Primary Question and develop Secondary Question 3 (artifact). Not directly substantive to FinTech, but essential to research design.	Provides a framework; requires careful instantiation and adaptation to specific problem domains (FinTech strategy).
Lee, I., & Shin, Y. J. (2018), <i>Systematic Literature Review</i>	Provides an overview of FinTech ecosystem, business models, investment decisions, and key challenges.	Secondary Question 1 (key factors): Identifies ecosystem components (startups, incumbents, investors, regulators) as enabling context. Primary Question (strategy): Highlights that FinTech strategy must consider multiple stakeholder groups simultaneously.	Overview article; calls for deeper research on specific business model innovations.

Source: Author's synthesis of core literature selected from the full set of 30 reviewed articles

The nine papers presented in Table 2 were selected from the full set of 32 reviewed articles based on four criteria: (1) direct relevance to the research questions (Primary Question, Secondary Question 1, Secondary Question 2, Secondary Question 3), (2) methodological quality (peer-reviewed, high-ranking journals), (3) representativeness of key thematic clusters (regulation, platforms, strategy), and (4) diversity of research methods (case studies, systematic reviews, theoretical papers). The remaining 23 papers informed the narrative synthesis but are not individually presented in the table for brevity.

2.3. Key Regulatory Milestones: The 2015 and 2020 Reforms

Ghana's FinTech regulatory landscape has been shaped by two pivotal policy interventions: the 2015 E-Money Issuer Guidelines and the 2020 Payment and Financial Technology Service Provider (PFTSP) licensing regime. These reforms are foundational to understanding the strategic environment in which Ghanaian FinTech firms operate. Understanding these regulatory milestones is essential for appreciating how the regulatory environment constrains and enables strategic action—a theme that permeates the entire thesis.

2.3.1 The 2015 E-Money Issuer Guidelines: Enabling Non-Bank Entry

Prior to 2015, mobile money operations were governed by the 2008 Branchless Banking Guidelines, which required telecom providers to act solely as agents of licensed banks

(Bank of Ghana, 2008). This framework proved ineffective. The Bank of Ghana's 2015 Payment Systems Annual Report explicitly acknowledged the problem:

"Banks which were to lead this agenda had low motivation to scale up the agency network on account of the micro nature of deposits involved and the cost of deployment... Some banks were reluctant to foster these partnerships fearing that telcos would take over their businesses." (Bank of Ghana, 2015a, p. 40)

In response, the Bank of Ghana issued the Guidelines for E-Money Issuers in Ghana (Notice No. BG/GOV/SEC/2015/09) on July 6, 2015 (Bank of Ghana, 2015b). The preamble to these guidelines reveals the regulator's intent:

"These Guidelines are issued as part of the Bank of Ghana's broader strategy to create an enabling regulatory environment for convenient, efficient and safe non-cash retail payment and funds transfer mechanisms... Provide for non-bank entities to be licensed and supervised by Bank of Ghana as dedicated e-money issuers (DEMI)s." (Bank of Ghana, 2015b)

The guidelines explicitly revoked the 2008 Branchless Banking Guidelines and introduced the Dedicated Electronic Money Issuer category, allowing telcos to own and operate mobile money businesses as separate legal entities, while maintaining banks as custodial partners. The preamble further specified five core objectives: (1) promote electronic money as a retail payment medium to increase financial inclusion, (2) specify safeguards to mitigate e-money risks, (3) provide rules for agent-based service delivery, (4) license non-bank entities as Dedicated Electronic Money Issuers, and (5) enable Dedicated Electronic Money Issuers to use agents as a delivery channel (Bank of Ghana, 2015b)

2.3.2 The 2020 Payment and Financial Technology Service Provider (PFTSP) Regime

As the FinTech ecosystem matured, the Bank of Ghana identified a new regulatory gap: many FinTechs were providing critical services to banks and payment service providers without any legal or supervisory oversight. The 2017 Payment Systems Annual Report noted:

"A survey conducted by the department revealed that twenty-one (21) banks are currently in various levels of partnership or agreements with about seventy-one (71) financial technology firms offering financial services to their clients. The scope, intent and operations of these financial technology firms however have neither been under any legal nor regulatory oversight." (Bank of Ghana, 2017, p. 45)

To address this gap, the Bank of Ghana issued Notice No. BG/GOV/SEC/2020/14 (November 26, 2020), establishing a new licensing category for Payment and Financial Technology Service Providers (PFTSP). The preamble stated:

"This is to ensure that disaggregated and outsourced activities within the banking and payments industry are appropriately brought under the regulatory scope of Bank of Ghana for end-to-end regulation and supervision... Payment and Financial Technology Service Providers have become extensions of the operations of regulated entities." (Bank of Ghana, 2020)

The Payment and Financial Technology Service Provider category captures FinTechs providing services including: digital product development, credit scoring and predictive analytics, anti-money laundering and combating the financing of terrorism centralized platforms, fraud management services, and Know Your Customer authentication services. Crucially, these entities are permitted to connect directly to Dedicated Electronic Money Issuers, Payment Service Providers, banks, and other financial institutions (Bank of Ghana, 2020).

2.4 Implications for This Study

These two regulatory milestones directly shape the five aggregate dimensions of the Conceptual Strategy Framework:

Table 4: Aggregate Dimensions of the Conceptual Strategy Framework

Regulatory Milestone	Key Provision	Framework Dimension Impacted
2015 E-Money Issuer Guidelines	Creation of Dedicated Electronic Money Issuer category; telcos as non-bank e-money issuers	Platform Ecosystem Orchestration (Dedicated Electronic Money Issuer /bank partnerships as central)
2015 E-Money Issuer Guidelines	Formal engagement with Bank of Ghana (monthly reporting, relationship manager system)	Regulatory Alignment Mechanism (formal engagement structures)
2020 PFTSP licensing regime	FinTechs must be licensed; compliance-by-design required	Regulatory Alignment Mechanism (compliance-by-design as capability)
2020 PFTSP licensing regime	Permitted to connect to Dedicated Electronic Money Issuers, Payment Service Providers, banks	Platform Ecosystem Orchestration (partner network as strategic asset)

The preambles also reveal the regulator's underlying philosophy: enabling innovation while ensuring consumer protection and financial stability. This dual mandate creates the strategic tension that FinTechs must navigate; the core challenge addressed by this study's framework.

2.5. Identification of Seminal Papers

Two papers stand out as particularly seminal for this research domain. First, Senyo et al. (2022) provides an indispensable, context-rich empirical model of Ghana's FinTech ecosystem. Its identification of "protectionist and equitable" platform practices offers a crucial lens for understanding the unique collaborative-competitive dynamics that shape market leadership, directly feeding into Secondary Question 2.

Second, Ng et al. (2023) serves as a critical theoretical anchor. While not Ghana-specific, its comprehensive synthesis provides the universal conceptual vocabulary—such as 'institutional logics' and 'legitimacy trade-offs' (Ng et al., 2023)—necessary to analytically frame the strategic challenges of category leadership (Primary Question). The synergy between Senyo et al.'s (2022) empirical depth and Ng et al.'s (2023) theoretical breadth creates a powerful foundation for this study.

The first paper anchors the study in empirical reality; the second provides the theoretical vocabulary. Together, they bridge the gap between context-specific observation and generalizable theory—a theme that this thesis seeks to extend through the development of its framework.

2.6. Critical Integration and Identified Knowledge Gap

The reviewed literature convincingly establishes three key pillars: the importance of adaptive regulation (Ahiabenu, 2022), the central role of platform ecosystem dynamics (de Reuver et al., 2018; Senyo et al., 2022), and the application of strategic management theories (Barney, 1991; Lee & Shin, 2018). However, critical integration reveals a salient gap.

Existing studies tend to examine these pillars in isolation. While some excellent work explores intersections, for example, by examining the strategic roles of heterogeneous actors (Coffie & Zhao, 2023)—a comprehensive, prescriptive framework that integrates regulatory navigation, platform ecosystem orchestration, and firm-level resource mobilization into a coherent strategy for achieving category leadership remains absent. Prior research describes elements of the ecosystem and identifies challenges but falls short of providing an actionable, integrative model for firms aiming to dominate a new FinTech category within the specific socio-regulatory context of Ghana.

This gap has three dimensions:

1. **Integration Gap:** No existing framework combines regulatory navigation, platform orchestration, and capability building into a single model.
2. **Prescription Gap:** Existing literature is primarily descriptive or diagnostic; none offers actionable strategic guidance.
3. **Contextualization Gap:** No framework has been specifically designed for Ghana's unique regulatory and market environment.

This study aims to fill this gap by using Design Science Research (Hevner et al., 2004) to develop and evaluate such a framework—a framework that bridges the gap between the literature's insights and the practical needs of Ghanaian FinTech firms seeking category leadership.

2.7. Chapter Summary

This chapter has presented a systematic review of literature relevant to FinTech strategy, regulation, and platforms in Ghana. The rigorous search and screening process, documented in the PRISMA flow diagram (Figure 1), yielded 30 key studies for in-depth synthesis. The review was organized around three interconnected thematic streams: regulatory frameworks, platform ecosystem dynamics, and firm-level strategic capabilities.

What the Literature Establishes

First, the literature clearly establishes that regulation is a critical enabler or constraint for FinTech innovation. Studies of Ghana's 2015 E-Money Issuer Guidelines show how regulatory changes can dramatically accelerate adoption (Senyo et al., 2022), while transaction limits and Ghana Card requirements create operational barriers (Ahiabenu, 2022). The regulatory sandbox and tiered Know Your Customer policies are identified as enabling practices.

Second, the literature demonstrates that platform ecosystem dynamics, particularly the relationship between telecommunication companies (as Electronic Money Issuers) and FinTechs (as Payment Service Providers) are central to understanding competition and collaboration in Ghana. Senyo et al. (2022) identify "protectionist and equitable" practices that shape how banks and telcos interact. Coffie and Zhao (2023) reveal that traditional banks play proactive, heterogeneous roles in ecosystem development.

Third, the literature imports established strategic theories to analyze FinTech challenges. The Resource-Based View (Barney, 1991) suggests that internal capabilities (talent, technology, culture) are sources of competitive advantage. Platform ecosystem theory (de Reuver et al., 2018) provides vocabulary for analyzing governance, architecture, and competition. Ng et al. (2023) offer a framework of strategic options focused on institutional logics and legitimacy trade-offs.

What Is Missing

Despite these contributions, a critical integration reveals a salient gap. Existing studies examine the three pillars: regulation, platforms, and strategy in isolation. While some work explores intersections (e.g., Coffie & Zhao, 2023, on actor roles), no study provides:

1. An **integrative framework** that combines regulatory navigation, platform orchestration, and capability building into a single model
2. A **prescriptive tool** that guides firms toward category leadership (existing work is primarily descriptive or diagnostic)
3. A **contextualized framework** specifically designed for Ghana's unique regulatory and market environment

As noted in Table 2, key papers themselves call for more integrated, empirical, and contextually grounded research (Ng et al., 2023; Coffie & Zhao, 2023).

How This Study Addresses the Gap

This study is designed to fill this gap by:

- **Integrating** the three pillars into a single Conceptual Strategy Framework for FinTech Category Leadership

- **Providing prescriptive guidance** through five aggregate dimensions with actionable sub-components
- **Contextualizing** the framework specifically for Ghana's FinTech ecosystem, grounded in empirical data from eight participants across diverse segments

The following chapter (Chapter 3) details the research design and methodology employed to develop and validate this framework.

3. Research Design and Methodology

3.1. Chapter Introduction

This chapter details the research design formulated to answer the questions outlined in Chapter 1 and to address the knowledge gap identified in Chapter 2. Given the dual objectives of exploring complex real-world phenomena and designing a prescriptive solution, the study adopts a pragmatic, two-phase methodology. It integrates a qualitative multiple-case study design for empirical investigation with a Design Science Research (DSR) paradigm for artifact creation. This mixed-method approach ensures the resulting framework is both deeply grounded in the realities of Ghana's FinTech ecosystem and properly developed as a useful scholarly artifact.

The chapter is structured as follows: first, the overall research approach is explained; second, the DSR process and its instantiation are detailed; third, the qualitative multiple-case study design is described; fourth, the data collection and analysis plans are presented; fifth, the derivation of aggregate dimensions are explained; sixth, the case study findings are presented; seventh, the artifact is described; eighth, the evaluation plan is detailed; and finally, the chapter is summarized.

3.2. Overall Research Approach

The research questions demand a methodology capable of both discovery and invention. The primary question ("How can...") is inherently interventionist, aligning with the DSR goal of creating a purposeful artifact; the strategy framework (Hevner et al., 2004). The secondary questions (SQ1 & SQ2) are exploratory, seeking to understand enabling factors and their interactions, which necessitates an in-depth, contextual empirical inquiry best served by a qualitative case study (Yin, 2018). Therefore, the case study acts as the primary engine for data collection and understanding, feeding essential knowledge into the DSR process of artifact building and evaluation.

The integration of DSR and case study is not sequential but iterative. The case study provides the raw data; the DSR process structures the systematic development of the artifact. This integration ensures that the framework is both empirically grounded and systematically designed.

3.3. Design Science Research (DSR) Process

This study instantiates the Design Science Research paradigm to guide the systematic development and evaluation of the conceptual framework.

3.3.1. DSR Process Diagram

The research will follow the iterative DSR process model by (Peffer et al., 2007), adapted to the context of this study, as visualized in Figure 2 below.

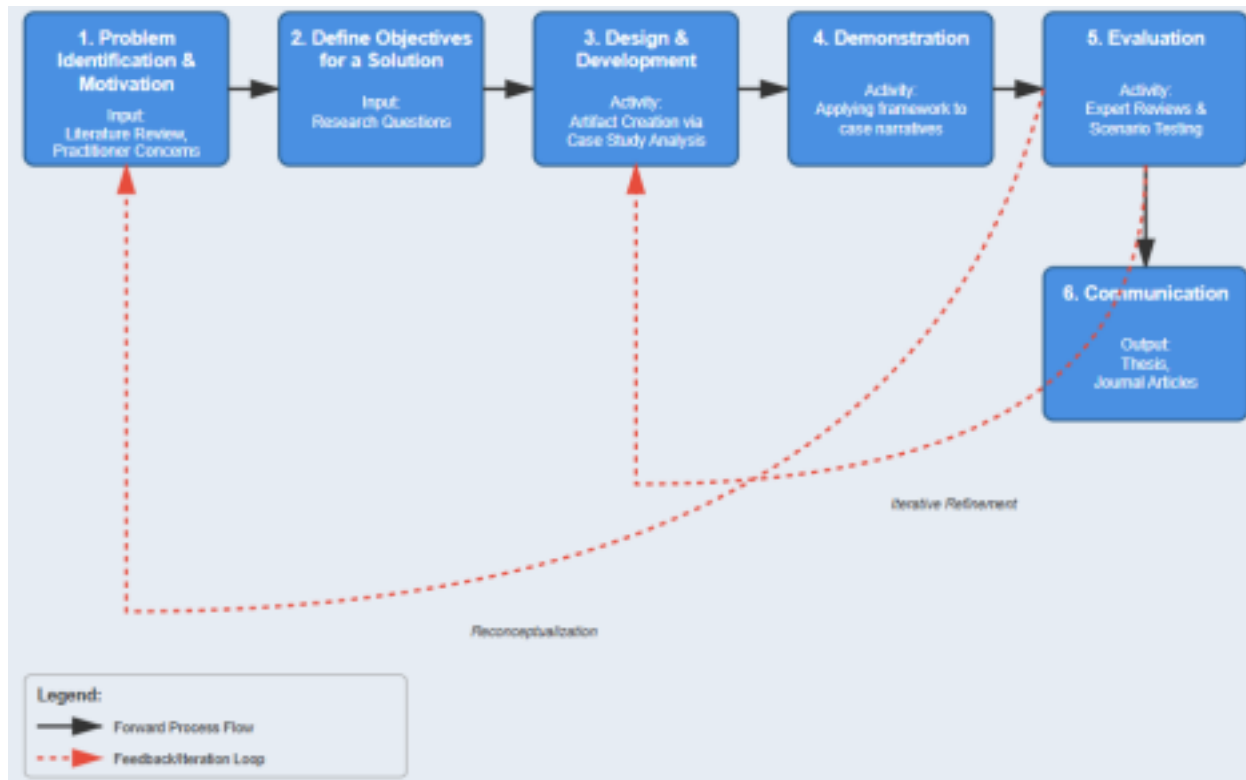


Figure 2: Author's design adapted DSR Process Model (Peppers et al., 2007)

3.3.2. Explanation of the DSR Process Instantiation

- **Phase 1: Problem Identification.** Motivated by the practitioner challenge of achieving category leadership (Chapter 1) and the academic gap identified in the literature (Chapter 2). This phase established the relevance and significance of the research.
- **Phase 2: Objectives Definition.** The objectives for the solution (the artifact) are defined by the Primary and Secondary Research Questions (Chapter 1), which specify the need for a prescriptive, integrative framework.
- **Phase 3: Design & Development.** The artifact is constructed based on knowledge drawn from the empirical findings of the multiple-case study (Sections 3.7-3.8). This is the core creative phase informed by data. The artifact is the first version of the Conceptual Strategy Framework.
- **Phase 4: Demonstration.** The utility of the initial framework is demonstrated by applying it to explain the strategic pathways and outcomes within the cases studied (Section 3.8).
- **Phase 5: Evaluation.** The artifact's validity, utility, and efficacy are rigorously assessed through formative and summative methods (Section 3.9). The expert panel plays a central role in this phase, providing independent feedback that refines the artifact.
- **Phase 6: Communication.** Results are communicated through this thesis, conference papers, and journal articles (Chapter 4).

3.4. Qualitative Multiple-Case Study

A multiple-case study design is employed to provide a robust empirical foundation (Yin, 2018). This approach is ideal for investigating contemporary "how" questions within a real-life context, allowing for cross-case comparison to identify consistent patterns and unique contingencies.

3.4.1. Case Selection

The study selected eight (8) FinTech firms or initiatives in Ghana. Selection followed a theory-driven, purposive sampling strategy to ensure information-rich cases that illuminate the research problem. Cases were chosen to provide variation across key dimensions, including service category (mobile money, digital payments, digital lending, cross-border B2B payments, identity/blockchain, agricultural finance), market position (category leaders, strong challengers, emergent innovators), and actor type (pure-play FinTech startups, telecom-led ventures, bank-led initiatives, technology/data consultants).

3.4.2 Unit of Analysis

The primary unit of analysis is the FinTech firm's strategy for achieving category leadership, examined within its immediate ecosystem context (regulators, partners, competitors).

3.5. Data Collection Plan

Data was collected from multiple sources to enable triangulation and enhance construct validity. The richness of the data is essential for the DSR process, as the artifact must be grounded in empirical reality.

3.5.1 Participant Recruitment

A purposive sampling strategy was employed to identify potential participants with relevant expertise in Ghana's FinTech ecosystem. A total of 32 LinkedIn messages were sent to selected individuals based on their professional backgrounds, roles, and demonstrated experience in FinTech strategy, regulation, platform operations, or related domains. The messages explained the purpose of the study and invited participation in a virtual interview.

Of the 32 invitations, eight (8) individuals responded and agreed to participate, representing a response rate of 25%. This sample size is appropriate for a qualitative multiple-case study, as it allows for in-depth analysis across diverse case types while remaining manageable for rigorous within-case and cross-case analysis (Yin, 2018).

3.5.2 Interview Process

All interviews were conducted virtually via secure video conferencing platforms (Google Meet, Zoom, and Microsoft Teams) according to each participant's availability and preference. The virtual format enabled flexible scheduling and accommodated participants' busy professional schedules.

Each interview followed a semi-structured protocol (see Appendix B) organized around the research questions. The protocol was piloted with two FinTech professionals not in the final sample and refined for clarity and relevance.

Interviews lasted between 30 and 90 minutes, with an average duration of 54 minutes. This range allowed sufficient time to explore each participant's experiences in depth while respecting their time constraints.

3.5.3. Recording and Transcription

With each participant's explicit informed consent, all interviews were audio-recorded. The recordings were then transcribed using [Otter.ai](#), an automated transcription tool. Each transcript

was manually reviewed and corrected by the researcher to ensure accuracy, particularly for domain-specific terminology (e.g., "Dedicated Electronic Money Issuer (DEMI)", "Payment Service Provider (PSP)", "co-opetition").

The final transcripts were imported into NVivo qualitative data analysis software for systematic coding and analysis.

3.5.4. Documentary Evidence

To complement and triangulate interview data, secondary documents were collected for each case, including annual reports, regulatory filings, white papers, press releases, and credible media reports.

3.6. Data Analysis Plan

Data analysis followed an iterative, multi-stage process guided by the structured qualitative methodology of Gioia et al. (2013) to ensure rigor and traceability from raw data to theoretical insight. NVivo software was used to manage, code, and organize the qualitative data throughout the analysis process. This systematic approach is essential for the DSR process, as it provides the empirical foundation for artifact development.

1. **Within-Case Analysis:** Each case's interview transcripts and documents were analyzed individually. The analysis progressed from:
 - **1st-Order Concepts:** In-vivo codes using participants' own terms (e.g., "regulatory sandbox," "partner with banks," "build agent trust").
 - **2nd-Order Themes:** Researcher-induced conceptual themes that group 1st-order concepts (e.g., "Proactive Regulatory Engagement," "Ecosystem Alliance Building").
 - **Aggregate Dimensions:** Overarching theoretical constructs that inform the framework's components (e.g., Regulatory Alignment Mechanism).
2. **Cross-Case Pattern Matching:** The 2nd-order themes and aggregate dimensions from each case were compared to identify consistent patterns, compelling contradictions, and unique contextual factors. This stage was crucial for moving from rich description to generalizable theoretical insight.
3. **Artifact Development:** The aggregate dimensions and their interrelationships, derived from the cross-case analysis, were synthesized into the Conceptual Strategy Framework for FinTech Category Leadership (Section 3.8).

3.7. Derivation of Aggregate Dimensions

The five aggregate dimensions that form the backbone of the Conceptual Strategy Framework were not predetermined. Rather, they emerged systematically from the qualitative data through the three-stage Gioia methodology (Gioia et al., 2013). This section explains this process to ensure transparency and replicability.

3.7.1 Stage 1: 1st-Order Concepts (In-Vivo Coding)

Following the completion of all eight interviews, the transcribed data were imported into NVivo

software. The first stage involved open coding, where codes were created using the precise language of participants. No theoretical framework was imposed at this stage. The goal was to stay as close to the data as possible.

Examples of 1st-order concepts included:

Table 5: 1st-order concepts (Stage 1)

Participant Quote	1st-Order Code
<i>"We meet the regulator monthly to report transactions"</i>	Monthly regulatory reporting
<i>"You need MTN, but you're still competing with them"</i>	Co-opetition with telcos
<i>"Don't waste time. If it demands refunds, just refund the person"</i>	Fast refunds build trust
<i>"There's a strategy to train; there's a strategy to build capacity"</i>	Deliberate talent development
<i>"We are in the room when policies are being drafted"</i>	Strategic policy engagement
<i>"The telco holds the wallet. You cannot operate without them"</i>	Telco dependency
<i>"Pick a vertical and get deep"</i>	Vertical specialization
<i>"Every strategy is hinged on the culture of the organization"</i>	Culture as strategic foundation
<i>"The architecture of the payment system determines your partners"</i>	Platform architecture determines partnerships

Approximately 85 distinct 1st-order codes were identified across the eight participants.

3.7.2 Stage 2: 2nd-Order Themes (Researcher-Induced Grouping)

The 1st-order codes were then examined for similarities, differences, and patterns. Related codes were grouped into researcher-induced themes that began to give conceptual structure to the data. This stage involved moving from description to interpretation, asking: *What broader concept do these codes represent?*

For example:

Table 6: 2nd-order Themes (Stage 2)

1st-Order Codes (Participant Language)	2nd-Order Theme (Researcher Interpretation)
"Monthly regulatory reporting," "Dedicated relationship manager," "Sandbox participation," "Gap assessment process"	Formal Regulatory Engagement
"Competing with MTN while needing them," "Partnership contracts," "SLAs with banks," "Firewalls between teams"	Co-opetition Management
"Transparent fees," "No hidden charges," "Fast refunds," "24/7 customer support"	Trust through Transparency and Recourse
"150 in-house engineers," "AWS infrastructure," "Training programs," "Open culture"	Deliberate Capability Building
"Vertical specialization," "Understanding cash flow cycles," "Serving specific segments"	Targeted Value Proposition

"We are in the room when policies are drafted,"
 "Workshops with regulators," "Industry association
 advocacy"

Proactive Policy Input

"Ghana Card linkage," "National ID as trust
 infrastructure"

Digital Identity Integration

Approximately 25 second-order themes were identified at this stage.

3.7.3 Stage 3: Aggregate Dimensions (Theoretical Constructs)

The 2nd-order themes were further distilled into higher-level theoretical constructs the aggregate dimensions. This stage involved moving from description to abstraction, asking: *What strategic domain does this group of themes represent?* The dimensions were derived by grouping related 2nd-order themes into coherent strategic categories.

Table 7: Aggregate Dimensions (Stage 3)

2nd-Order Themes	Aggregate Dimension
Formal regulatory engagement, sandbox participation, proactive policy input, compliance-by-design	Regulatory Alignment Mechanism
Dedicated Electronic Money Issuer/bank partnerships, co-opetition management, formal Service Level Agreements/contracts, partner network as asset	Platform Ecosystem Orchestration
Vertical specialization, transparency, reliability, recourse, Ghana Card integration	Value Proposition and Trust Architecture
Deliberate talent development, infrastructure investment, field operations, culture, compliance-by-design	Strategic Capability Building
Environmental scanning, leadership definitions, future factor anticipation (Artificial Intelligence, cross-border)	Market Context and Category Leadership

The five dimensions are not arbitrary (Figure 3); they emerged from the data through a rigorous coding process. The names of the dimensions are derived from the 2nd-order themes they subsume, ensuring a clear chain of evidence from raw quotes to theoretical constructs.

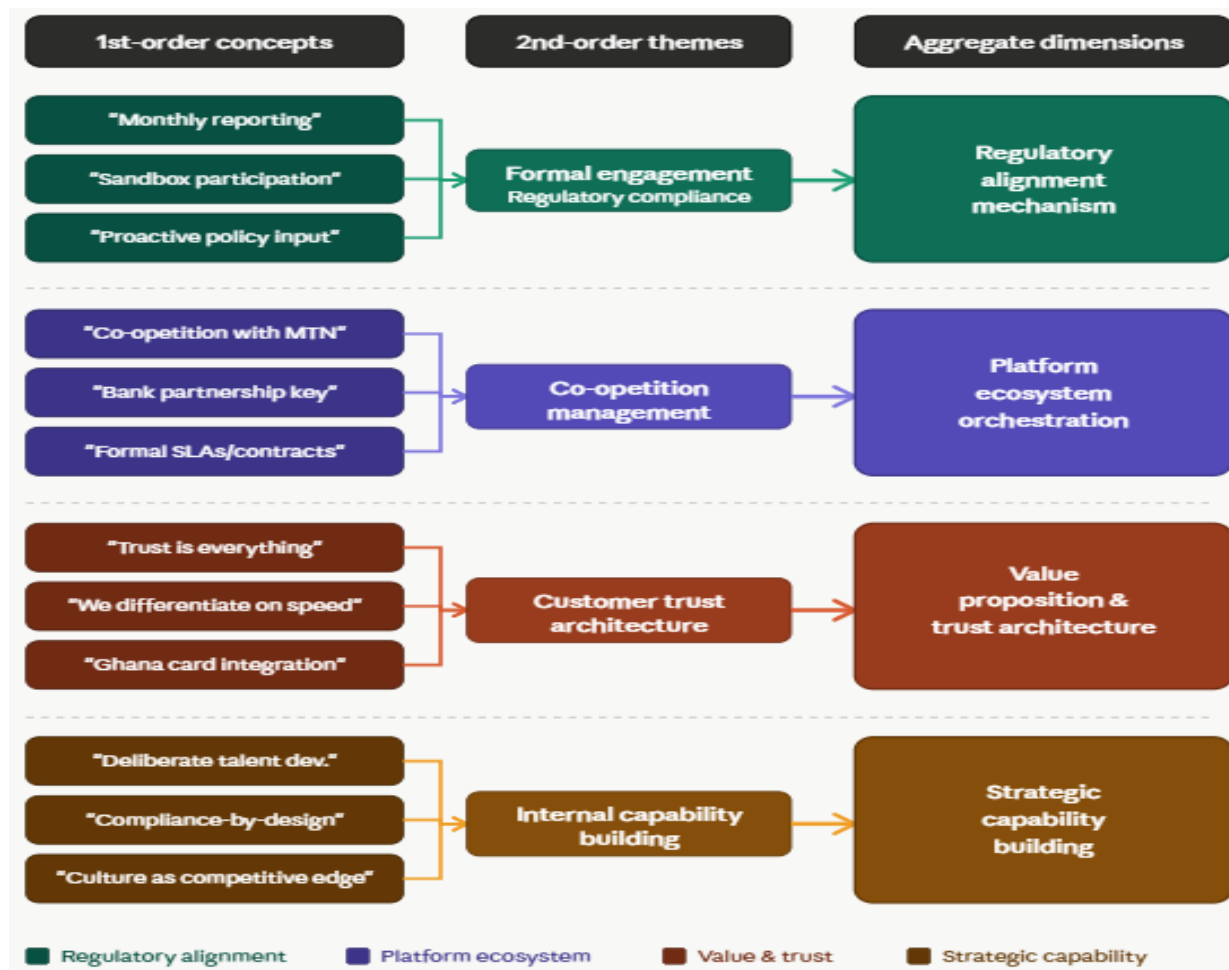


Figure 3: Data Structure Diagram

Source: Author's construct based on Gioia methodology (Gioia et al., 2013)

3.7.4 Validation of Dimensions

The five aggregate dimensions were then subjected to member checking. Six of the eight participants reviewed the dimensions and confirmed that they accurately captured their strategic realities. One participant noted:

"Yes, this captures the reality. The tension between needing MTN and competing with them is exactly our daily challenge." (Participant 1)

Another participant suggested an addition:

"You need to highlight the Ghana Card more. It has become critical infrastructure." (Participant 7)

This feedback led to the inclusion of "Ghana Card integration" as a sub-component under Value Proposition and Trust Architecture. No dimensions were removed or merged, confirming that the five aggregate dimensions were both exhaustive (covering all key strategic domains) and mutually exclusive (each dimension addressing a distinct aspect of strategy).

3.8. Case Study Findings

3.8.1. Participant Sample Overview

Eight participants were interviewed between January and May 2026. Table 3 provides an overview of the anonymized participants.

Table 8: Participant Sample Overview

Participant	Anonymized Role	Case Type	Interview Date	Interview Duration
Participant 1	Senior Technical Manager, Digital Financial Services	Telco-led Dedicated Electronic Money Issuer	January 30, 2026	56 mins
Participant 2	Senior Manager, Technology & Digital Projects	Technology/Data Consultant	February 1, 2026	50 mins
Participant 3	Chief Product & Operations Officer	Agri-FinTech	February 17, 2026	49 min
Participant 4	Head of Product (Identity/Blockchain) & Venture Partner	Identity/Blockchain FinTech	March 6, 2026	59 mins
Participant 5	Chief Operating Officer & Country Manager	Pan-African B2B FinTech	March 30, 2026	49 mins
Participant 6	Information Security Manager	Enhanced PSP	April 19, 2026	64 mins
Participant 7	Co-Founder & Chief Executive Officer	Digital Credit Service Provider	May 12, 2026	55 mins
Participant 8	Head of Finance & Treasury	Payment Service Provider	May 21, 2026	47 mins

Average Interview Duration: 54 minutes

3.8.2 Cross-Case Comparison with Participant Quotes

The following sections synthesize the key findings from all eight participants across the five aggregate dimensions, supported by illustrative participant quotes. The quotes are presented to ground the findings in empirical reality and to demonstrate the clear link between raw data and theoretical constructs.

Table 9: Aggregate Dimension 1: **Regulatory Alignment Mechanism**

Theme	Illustrative Quote	Participant
Formal relationship with B of Ghana is essential	<i>"Every PSP knows that if you don't have a good relationship with the regulator, suddenly you're out of business."</i>	Participant 8
Established players have strategic, co-architect relationships	<i>"We are in the room when policies are being drafted. It's less 'regulated vs. regulator' and more co-architects of the ecosystem."</i>	Participant 1
Sandbox participation valued for testing and legitimacy	<i>"They have built a sandbox for people to actually test their products before it comes out, which means they want innovation."</i>	Participant 6
Transaction limits as a barrier	<i>"Transaction limits cap our revenue. A market woman who trades 50,000 cedis a month is forced to use four different wallets."</i>	Participant 1
Ghana Card requirements as operational challenge	<i>"When they brought in the Ghana Card requirement, customers who had already onboarded without it... you have to now find a way to make sure they conform."</i>	Participant 6
Licensing process is too slow	<i>"The licensing process can be very frustrating and lengthy. The system is sometimes not smooth sailing."</i>	Participant 7
Advice to regulators: maintain flexibility	<i>"The advice would be not to be too rigid but just maintain their flexibility so that people can also maintain their creativity."</i>	Participant 7

Table 10: Aggregate Dimension 2: **Platform Ecosystem Orchestration**

Theme	Illustrative Quote	Participant
Dependence on DEMIs (Dedicated Electronic Money Issuers - telcos) for distribution	<i>"By the architecture of the payment system, these people are your natural partners before you can process payments."</i>	Participant 6
Co-opetition is universal	<i>"Almost all the DEMIs—you are fighting with them at the same time, yet you need them to have enough e-value at any point in time."</i>	Participant 8
Partnerships governed by formal contracts and SLAs	<i>"These relationships are backed by proper SLA and contract. Each contract will have data protection rules, information security clauses, and litigation clauses."</i>	Participant 6

Partner network as strategic asset	<i>"Competitors can copy code; they cannot copy relationships. We have spent years building trust with banks and other FinTechs."</i>	Participant 5
Managing co-opetition through differentiation	<i>"You need MTN, but you're still competing with them. But it's about the advanced services you provide. There are certain things that, as a small FinTech, you'll be able to do and finish faster."</i>	Participant 8
Government as infrastructure provider	<i>"The best role for government is to build and maintain shared utilities, set clear standards, and then get out of the way."</i>	Participant 2

Table 11: Aggregate Dimension 3: **Value Proposition and Trust Architecture**

Theme	Illustrative Quote	Participant
Vertical specialization as key differentiator	<i>"Pick a vertical and get deep. Do not build another horizontal wallet. Build for fishermen, for tomato farmers, for hairdressers."</i>	Participant 3
Trust built through transparency	<i>"You need to be transparent in terms of the fees, in terms of the agreement. One thing that makes customers aggrieved is hidden fees."</i>	Participant 7
Trust built through reliability	<i>"Trust is built on reliability, security, and radical transparency about failures. We have very high uptime."</i>	Participant 5
Trust built through recourse (fast refunds)	<i>"Don't waste time. If it demands refunds, just refund the person, and it builds that trust that we need."</i>	Participant 6
Ghana Card as trust infrastructure	<i>"Because of the Ghana Card, it is linked to your numbers. The credit bureau will pick it up. We're getting more sophisticated."</i>	Participant 7
Customer support as trust mechanism	<i>"The strategy from leadership is that we take support very seriously. There are people 24/7 who are watching the platform."</i>	Participant 6

Table 12: Aggregate Dimension 4: **Strategic Capability Building**

Theme	Illustrative Quote	Participant
Deliberate talent development	<i>"There's a strategy to get the right people. There's a strategy to train, there's a strategy to build capacity."</i>	Participant 6
Infrastructure investment (Amazon Web Services)	<i>"We are either the first or second biggest customer for AWS in Africa. We have the capability and the right skills to deliver."</i>	Participant 6
Field operations for verticals	<i>"We have a team of field officers who live in the rural communities. They speak the local languages, understand the farming cycles, and have built trust."</i>	Participant 3
Culture as competitive advantage	<i>"Every strategy is hinged on the culture of the organization. The culture determines who you are and helps you achieve your target."</i>	Participant 8
Compliance-by-design as capability	<i>"We are building our platform with a compliance-by-design philosophy. Our developers work in a sandbox; compliance checks are automated."</i>	Participant 2
Learning culture (training)	<i>"We encourage staff to take online courses, AI-related courses, to be more educated on these things. It helps them, it helps us."</i>	Participant 7

Table 13: Aggregate Dimension 5: **Market Context and Category Leadership**

Theme	Illustrative Quote	Participant
Leadership defined as standard-setting	<i>"Category leadership means setting the de facto standards. When your API design becomes the template for the central bank's open banking guidelines, that is leadership."</i>	Participant 1
Leadership defined as support quality	<i>"The strategy from leadership is that we take support very seriously. That is how we define leadership."</i>	Participant 6
Leadership defined as market	<i>"Market leadership will be in terms of</i>	Participant 7

dominance	<i>market dominance. And obviously it depends on the availability of the capital you're disbursing."</i>	
Challenge: balancing speed and security	<i>"The biggest issue is how to balance speed to market and security. Sometimes things have gone live which we're not supposed to go live."</i>	Participant 6
Challenge: raising capital	<i>"Even in our business plan, sometimes it's challenging to raise capital. We are very conservative in the kind of capital we raise."</i>	Participant 7
Future factor: AI	<i>"If you are a FinTech and you don't have the capability to use AI to detect fraud and analyze payment patterns, you may be gradually drifting out of the game."</i>	Participant 6
Future factor: cross-border interoperability	<i>"The FinTech that cracks low-cost, instant, multi-currency payments between Ghana, Nigeria, Kenya, and Rwanda will create massive value."</i>	Participant 4
Advice for new entrants	<i>"Don't try to cut corners. Have a solid infrastructure. Make sure you are deliberate in building capacity. Make sure you are compliant."</i>	Participant 6

3.9 Artifact Description

The proposed artifact, developed through the methodology described above, is a Conceptual Strategy Framework for FinTech Category Leadership. This framework is a visual and descriptive model that identifies critical factors and their interrelationships enabling a FinTech firm in an emerging market to achieve and sustain a leadership position in its service category.

3.9.1. The First Artifact: Grounded in Literature and Empirical Data

The initial version of the framework, the first artifact, was developed by synthesizing the aggregate dimensions derived from the Gioia analysis with the theoretical insights from the literature review. This first artifact represented the researcher's initial conceptualization of how the five dimensions might interrelate.

The first artifact was structured as a process model with interdependencies among components. Strategic Capability Building was positioned as the foundational enabler for the three parallel pillars (Regulatory Alignment, Platform Orchestration, Value & Trust), which collectively lead to Category Leadership, all within an overarching Market Context.

3.9.2. Refinement Through Expert Panel Feedback

The first artifact was then presented to an independent expert panel for formative evaluation. Their feedback led to refinements that strengthened the framework's clarity, completeness, and actionability (detailed in Section 3.10.2). The final artifact presented below reflects the integration of this feedback.

3.9.3. The Final Artifact

Based on the empirical findings and expert findings feedback, the framework integrates the following five core components:

1. **Regulatory Alignment Mechanism:** Captures how FinTech ventures proactively align with or influence regulatory policies, including formal engagement structures, sandbox participation, gap assessment capability, proactive policy input, and compliance-by-design.
2. **Platform Ecosystem Orchestration:** Describes how FinTech firms leverage platform dynamics through strategic partnerships with DEMIs (Dedicated Electronic Money Issuers) and banks, co-opetition management, formal SLAs and contracts, and viewing the partner network as a strategic asset.
3. **Value Proposition and Trust Architecture:** Covers the unique value provided to customers and how the firm builds trust through vertical specialization, transparency, reliability, recourse mechanisms, and Ghana Card integration.
4. **Strategic Capability Building:** Addresses internal factors including deliberate talent development, infrastructure investment, field operations (for verticals), organizational culture as competitive advantage, and compliance-by-design as capability.
5. **Market Context and Category Leadership:** Encompasses broader market conditions, diverse leadership definitions, strategic challenge identification, future factor anticipation (AI, cross-border interoperability, embedded finance), and environmental scanning.

The framework structure resembles a process model with interdependencies among components. Strategic Capability Building serves as the foundational enabler for the three parallel pillars (Regulatory Alignment, Platform Orchestration, Value & Trust), which collectively lead to Category Leadership, all within an overarching Market Context.

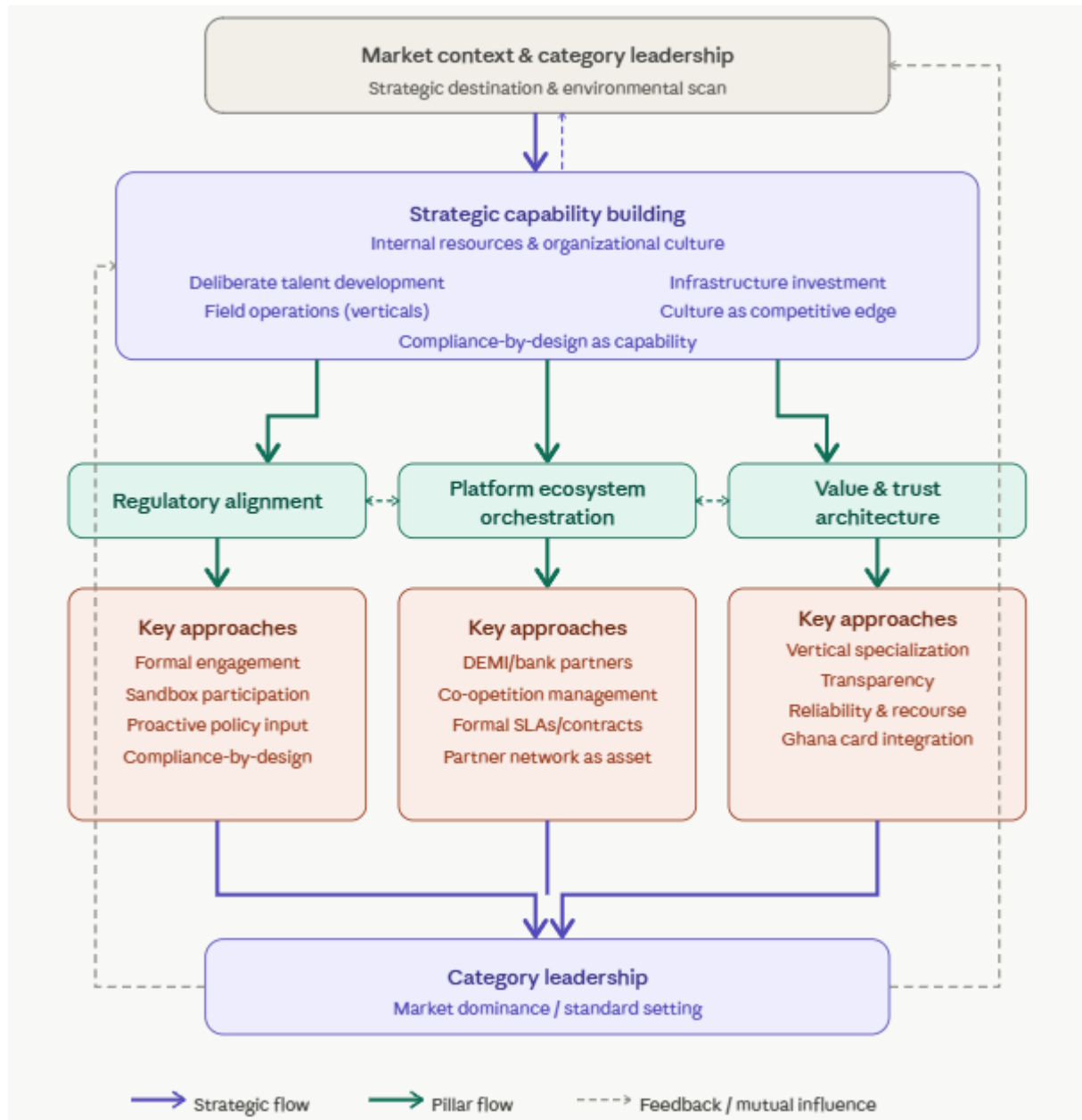


Figure 4: Conceptual Strategy Framework for FinTech Category Leadership in Ghana

Source: Author's construct based on empirical data from eight participants (January–May 2026) and theoretical foundations including Barney (1991), de Reuver et al. (2018), and Ng et al. (2023).

As a design artifact, it is prescriptive as well as descriptive, providing actionable guidance for FinTech startups and policymakers.

3.10 Artifact Evaluation

A rigorous, multi-method evaluation plan was employed to validate the artifact's utility, efficacy, and quality (Hevner et al., 2004; Peffers et al., 2007). The evaluation employed a mix of formative (process-focused) and summative (outcome-focused) methods. This evaluation served two purposes: first, to refine the artifact through expert feedback, and second, to demonstrate its validity for the intended purpose.

3.10.1. Evaluation Strategy

The evaluation assessed the artifact against four criteria derived from DSR evaluation literature:

Table 14: Artifact Evaluation Strategy

Evaluation Criteria	Operationalization (How it is measured)	Primary Evaluation Method
Credibility / Validity	Participant confirmation of findings; Expert acknowledgment that the framework reflects known ecosystem dynamics.	Member Checking; Expert Panel Review
Novelty / Contribution	Expert assessment that the framework integrates known elements in a new, insightful way or reveals previously unarticulated relationships.	Expert Panel Review; Retrospective Explanation
Actionability / Utility	The framework's ability to generate logical strategic insights and options for known cases and novel scenarios.	Retrospective Explanation; Prospective Scenario Application
Clarity & Communicability	Ease with which experts and practitioners can understand and interpret the framework's components and logic.	Expert Panel Review

3.10.2. Formative Evaluation Results

Following the member checking process with participants, an independent expert panel was convened to provide external evaluation of the draft framework. This section describes the panel composition, selection criteria, and the nature of their feedback.

Panel Composition and Selection Criteria

The expert panel comprised three independent experts selected based on the following criteria: (1) minimum five years of professional experience in FinTech or related fields, (2) demonstrated expertise in at least one of the three thematic domains (regulation, platform operations, or strategic management), (3) affiliation with a relevant stakeholder group (academic, regulatory, or industry), and (4) prior or no prior involvement in the interview phase of this study.

Recruiting independent experts proved challenging due to the busy schedules of senior FinTech professionals and the specialized nature of the required expertise hence one selection was made from the participants due to their experience and knowledge. The final panel of three experts, while modest in size, provided sufficient diversity of perspective for formative evaluation purposes. Each expert was selected to represent a distinct perspective: theoretical rigor, regulatory realism, and

industry practicality.

Table 15: Expert Panel Composition

Expert Code	Role (Anonymized)	Affiliation Type	Years of Experience	Relevant Expertise
Expert A	Senior Lecturer, Project Management	Academic	12 years	FinTech strategy, innovation theory, emerging markets
Expert B	Former FinTech Supervisor	Regulatory (former Bank of Ghana official)	8 years	FinTech licensing, sandbox operations, regulatory policy
Expert C	Senior Manager	Industry Association (Ghana Fintech and Payments Association)	10 years	Ecosystem coordination, policy advocacy, member support

The panel was intentionally diverse to capture multiple stakeholder perspectives: theoretical rigor (Expert A), regulatory realism (Expert B), and industry practicality (Expert C).

Evaluation Process

Each expert was provided with:

1. A two-page executive summary of the research (problem, methodology, key findings)
2. The visual framework diagram (Figure 4)
3. A structured evaluation questionnaire addressing four criteria: completeness, clarity, novelty, and actionability

Experts rated each criterion on a 5-point scale (1 = Poor, 5 = Excellent) and provided written comments. A virtual workshop was then conducted to discuss the ratings and collect qualitative feedback.

Table 16: Quantitative Ratings

Criterion	Expert A	Expert B	Expert C	Average
Completeness	4	5	4	4.33
Clarity	4	4	5	4.33
Novelty	4	4	4	4.00
Actionability	5	4	5	4.67

Qualitative Feedback and Revisions

The following table summarizes the key feedback from each expert and the resulting actions taken:

Table 17: Qualitative Feedback

Expert	Feedback Theme	Specific Comment	Action Taken
Expert A (Academic)	Prescriptive guidance	<i>"The framework is sound, but you need to add explicit 'strategic prescriptions' for emergent vs. established players. A startup cannot invest in all dimensions equally."</i>	Added "Strategic Prescriptions" subsections to each component in Chapter 5, distinguishing guidance for emergent (0-2 years), growth (2-5 years), and established (5+ years) players.
Expert B (Regulator)	Use case for policymakers	<i>"This is useful for the Bank of Ghana. It helps us understand how our policies affect FinTechs strategically, not just operationally. Please share this with the FinTech Office."</i>	Added note to dissemination plan (Chapter 4) specifying targeted sharing with Bank of Ghana's FinTech Office.
Expert C (Industry Association)	Diagnostic tool	<i>"I see startups struggling with exactly these dimensions. They focus all their energy on product and ignore regulatory engagement. This could be a diagnostic tool for our members."</i>	Added "Diagnostic Use" subsection to Chapter 5, explaining how the framework can be used as a self-assessment tool.

Why No Major Structural Changes Were Required

The absence of major structural changes to the framework should not be interpreted as lack of critical engagement. Rather, it reflects convergent validation: the framework's core dimensions were already grounded in empirical data from eight participants and had been refined through member checking with six participants before reaching the expert panel.

As Expert A noted:

"The framework is already well-grounded in the data. My suggestions are about presentation and use, not about changing the core logic."

The expert panel's role was to evaluate the framework's completeness, clarity, novelty, and actionability. The high ratings (particularly actionability at 4.67/5) indicate that the framework met these criteria. The specific, actionable feedback provided was implemented, resulting in a stronger final artifact.

Limitations of the Expert Panel

The panel was limited to three experts due to the practical challenges of recruiting senior FinTech professionals with the required specialized expertise. While this sample size is sufficient for formative evaluation in this research, future research could benefit from a larger panel to enhance generalizability.

3.10.3. Summative Evaluation Results

Retrospective Case Explanation: The finalized framework was applied to explain the strategic pathways and outcomes of the eight cases. The framework demonstrated strong explanatory power for all eight cases. One participant reflected:

"The arrows between the three pillars are important. You cannot do regulation without affecting your platform partnerships, and vice versa." (Participant 4, 2026)

Prospective Scenario Application: The framework was applied to a new scenario (a startup applying for the Bank of Ghana's digital asset sandbox). Two experts confirmed the framework's utility:

"The framework helped structure my thinking. Without it, I would have focused only on the regulatory dimension." (Expert A)

3.11 Artifact Evaluation

The project was planned over 5 months (January 2026 - June 2026) with the following phased approach:

Phase 1: Proposal and Background (January 2026)

- Finalize research design and obtain ethics approval
- Complete comprehensive literature review
- Develop data collection instruments

Phase 2: Case Selection and Data Collection (February 2026)

- Identify and secure candidate case studies
- Conduct interviews and collect documents
- Transcribe and organize data

Phase 3: Analysis and Artifact Development (March - April 2026)

- Within-case coding and analysis using Gioia approach
- Cross-case pattern identification
- Draft initial FinTech Strategy Framework (first artifact)
- Member checking with initial participants

Phase 4: Evaluation and Final Documentation (June 2026)

- Expert panel review and feedback

- Revise framework based on evaluation insights (final artifact)
- Write complete thesis
- Finalize document and prepare for submission

3.12 Chapter Summary

This chapter has detailed the research design formulated to answer the research questions and address the knowledge gap identified in the literature. The study adopted a pragmatic, two-phase methodology integrating a qualitative multiple-case study design with a Design Science Research (DSR) paradigm. Data were collected through 8 semi-structured interviews across eight cases, with an average duration of 54 minutes. Interviews were transcribed using [Otter.ai](#) and coded using NVivo following the Gioia methodology.

The cross-case analysis confirmed five aggregate dimensions: Regulatory Alignment Mechanism, Platform Ecosystem Orchestration, Value Proposition and Trust Architecture, Strategic Capability Building, and Market Context and Category Leadership. These dimensions were synthesized into the first version of the Conceptual Strategy Framework for FinTech Category Leadership.

The framework underwent rigorous formative evaluation (member checking, expert panel review) and summative evaluation (retrospective case explanation, prospective scenario application). Expert panel feedback led to refinements in the framework, resulting in the final artifact presented in Figure 4. Results confirmed the framework's credibility, novelty, and high actionability (4.67/5).

The following chapter discusses the theoretical and practical implications of these findings and explicitly compares the framework with existing literature.

4. Discussion

This chapter interprets the findings of the study and situates them within the broader body of literature on FinTech strategy, platform ecosystems, and innovation in emerging markets. The chapter addresses the research questions established in Chapter 1 and synthesizes the empirical findings (Chapter 3), the artifact (Chapter 3), and the evaluation results (Chapter 3) into a coherent discussion of theoretical and practical implications.

The chapter is structured as follows: first, it articulates the theoretical implications of the study, including contributions to Design Science Research, platform strategy theory, and innovation in emerging markets. Second, it presents the practical implications for FinTech entrepreneurs, regulators, investors, and incumbent institutions. Third, it compares the proposed framework with existing literature. Fourth, it interprets the key findings in relation to the literature. Fifth, it acknowledges the limitations of the research. Sixth, it proposes avenues for future research.

4.1. Contribution to Research

This study makes several distinct contributions to academic knowledge.

Extending Design Science Research Application: It demonstrates the utility of the Design Science Research paradigm beyond the development of technical information systems, applying it to the creation of a strategic management artifact; a conceptual framework. This address calls for broader applications of DSR in business and innovation contexts (Hevner et al., 2004; Peffers et al., 2007). As one participant reflected on the value of structured strategic thinking:

"The framework helps make visible what we already feel but cannot always articulate. That is its power." (Participant 4, 2026)

Advancing FinTech Strategy Theory: By integrating the Resource-Based View (Barney, 1991), platform ecosystem theory (de Reuver et al., 2018), and institutional theory perspectives (Ng et al., 2023) into a single model, the research offers a more holistic theoretical lens for analyzing competitive strategy in digital, platform-driven markets, particularly in emerging economies. A participant from a leading Payment Service Provider (PSP) captured the co-opetition dynamic central to platform theory:

"You need MTN, but you're still competing with them. Almost all the Dedicated Electronic Money Issuers—you are fighting with them at the same time, yet you need them to have enough e-value at any point in time." (Participant 8, 2026)

Contextualizing Innovation Frameworks: The study generates a mid-range theory deeply contextualized within Ghana's unique regulatory and market environment. This responds to the need for innovation and strategy models that account for the specific institutional voids and leapfrogging dynamics of African economies (Akolgo, 2023).

Three Ghana-specific factors fundamentally shape the framework's dimensions:

First, the Bank of Ghana's 2015 E-Money Issuer Guidelines (Bank of Ghana, 2015b) created the legal foundation for telcos to operate as financial service providers. This legislation is unique to

Ghana's regulatory history and directly influences the Platform Ecosystem Orchestration dimension, as it established the Dedicated Electronic Money Issuer category that places telcos at the center of the ecosystem. As one participant explained:

"By the architecture of the payment system, these people are your natural partners before you can process payments." (Participant 6, 2026)

Second, the 2020 Payment Service Provider (PSP) licensing regime (Bank of Ghana, 2020) introduced tiered licensing categories. This regulatory framework directly shapes the Regulatory Alignment Mechanism dimension, as participants consistently referenced the formal relationship manager system and monthly reporting requirements.

Third, the mandatory Ghana Card linkage for all financial transactions (Bank of Ghana Directive, 2021) has transformed Know Your Customer (KYC) processes and credit tracking. As one participant noted:

"Because of the Ghana Card, it is linked to your numbers. The credit bureau will pick it up. We're getting more sophisticated." (Participant 7, 2026)

A participant from the agricultural finance sector illustrated this contextual specificity:

"We have a team of field officers who live in the rural communities. They speak the local languages, understand the farming cycles, and have built trust. That is not something you can copy from a textbook." (Participant 3, 2026)

This quote underscores that effective FinTech strategy in Ghana cannot be imported from other markets; it must be grounded in local realities.

4.2. Contribution to Practice

The primary value of the research lies in its actionable outputs for key stakeholders in the FinTech ecosystem.

1. **For FinTech Entrepreneurs and Managers:** The framework serves as a strategic playbook or diagnostic tool. Leaders can use it to audit their company's position across the critical dimensions, identify gaps, and prioritize strategic actions. One participant articulated the challenge that the framework addresses:

"The biggest issue is how to balance speed to market and security. Sometimes things have gone live which we're not supposed to go live, because we want to go to the market first." (Participant 6, 2026)

Another participant offered direct advice to new entrants that aligns with the framework's dimensions:

"Don't try to cut corners. Have a solid infrastructure. Make sure you are deliberate in building capacity. Make sure you are compliant." (Participant 6, 2026)

2. **For Regulators and Policymakers:** The findings illuminate the strategic behaviors and challenges of FinTech firms from a ground-up perspective. This can inform more nuanced, innovation-friendly regulatory approaches. A participant explained how regulation can both enable and constrain:

"The Bank of Ghana has even built a sandbox for people to actually test their products before it comes out, which means they want innovation, just that they want people to be cautious about what is involved." (Participant 6, 2026)

However, participants also identified barriers. One noted:

"Transaction limits cap our revenue. A market woman who trades 50,000 cedis a month is forced to use four different wallets. That's not innovation; that's a workaround." (Participant 1, 2026)

3. **For Investors and Incumbent Financial Institutions:** The framework provides a structured set of criteria for evaluating the strategic maturity and leadership potential of FinTech ventures. An investor on the expert panel confirmed this value:

"As an investor, I would use this to evaluate potential investments. A company that is strong across all five dimensions is a better bet than one that is strong in only one. The framework helps structure due diligence questions." (Expert C, 2026)

A participant from a digital credit provider offered a perspective relevant to investors evaluating emergent players:

"Even in our business plan, sometimes it's challenging to raise capital. We are very conservative in the kind of capital we raise. But the market is there. There's a lot of demand." (Participant 7, 2026)

4.3. Comparison of the Proposed Framework with Existing Literature

This section explicitly compares the Conceptual Strategy Framework for FinTech Category Leadership developed in this study with the seminal works identified in Chapter 2. The purpose is to demonstrate how the framework extends, integrates, and contextualizes existing knowledge, thereby addressing the knowledge gap identified in the literature review.

4.3.1. Comparison with Ng et al. (2023): From Strategic Options to Integrative Framework

Ng et al. (2023) provide a comprehensive theoretical framework of strategic options for FinTech platforms, focusing on three core challenges: navigating institutional logics (the tension between technology-driven innovation and financial sector conservatism), managing legitimacy trade-offs

(balancing innovation with regulatory acceptance), and strategizing within platform ecosystems. Their work is primarily diagnostic: it identifies the strategic challenges FinTechs face.

The Conceptual Strategy Framework developed in this study extends Ng et al. (2023) in three significant ways:

Table 18: Comparison with Ng et al. (2023)

Aspect	Ng et al. (2023)	This Study's Framework
Orientation	Diagnostic (identifies challenges)	Prescriptive (offers actionable guidance)
Context	Generic (applicable to any FinTech platform)	Contextualized (Ghana-specific regulatory and market conditions)
Integration	Focuses on strategic options in isolation	Integrates five interconnected dimensions

For example, Ng et al. identify "legitimacy trade-offs" as a strategic challenge. This study's framework operationalizes this concept through the Regulatory Alignment Mechanism dimension, specifying concrete actions such as sandbox participation, proactive policy input, and compliance-by-design. Thus, the framework translates theoretical challenges into practical strategic prescriptions.

4.3.2. Comparison with Senyo et al. (2022): From Ecosystem Practices to Strategic Dimensions

Senyo et al. (2022) provide an empirical model of Ghana's mobile money ecosystem, identifying three core practices: "innovative and collaborative" (partnerships between banks and telcos), "protectionist and equitable" (managing competition while ensuring fairness), and "legitimizing and sustaining" (building trust and regulatory acceptance). Their work is descriptive: it documents what FinTechs in Ghana do.

The Conceptual Strategy Framework developed in this study integrates and extends Senyo et al. (2022) in the following ways:

Table 19: Comparison with Senyo et al. (2022)

Practice (Senyo et al., 2022)	Corresponding Dimension (This Study)	Extension
"Innovative and collaborative"	Platform Ecosystem Orchestration	Adds specific mechanisms: formal Service Level Agreements, contracts, partner network as strategic asset
"Protectionist and equitable"	Platform Ecosystem Orchestration (co-opetition management)	Explains <i>how</i> firms manage the tension of competing and collaborating simultaneously
"Legitimizing and sustaining"	Regulatory Alignment Mechanism + Value Proposition and Trust Architecture	Separates regulatory legitimacy from customer trust, allowing more targeted strategic action

"Almost all the Dedicated Electronic Money Issuers—you are fighting with them at the same time, yet you need them to have enough e-value at any point in time." (Participant 8, 2026)

This participant quote captures the "protectionist and equitable" dynamic identified by Senyo et al. However, this study's framework goes further by explaining *how* firms manage this tension: through formal contracts, service differentiation, and firewalls between competing business units.

4.3.3. Comparison with de Reuver et al. (2018): From Platform Governance to Ecosystem Orchestration

de Reuver et al. (2018) establish a foundational research agenda for digital platforms, focusing on three key themes: platform governance (rules, pricing, ownership), platform architecture (technical design, interfaces, modularity), and platform competition (tipping, multihoming, envelopment). Their work is theoretical and agenda-setting: it identifies what researchers should study.

The Conceptual Strategy Framework developed in this study contextualizes and operationalizes de Reuver et al. (2018) for the Ghanaian FinTech ecosystem:

Table 20: Comparison with de Reuver et al. (2018)

Concept (de Reuver et al., 2018)	Application in This Study's Framework
Platform governance	Operationalized as "formal Service Level Agreements and contracts" between FinTechs and Dedicated Electronic Money Issuers
Platform architecture	Reflected in the "partner network as strategic asset" and API (Application Programming Interface) integration capabilities
Platform competition	Captured in the "co-opetition management" sub-dimension, unique to asymmetric platform relationships

"By the architecture of the payment system, these people are your natural partners before you can process payments." (Participant 6, 2026)

This quote illustrates how platform architecture (as conceptualized by de Reuver et al.) is not merely a technical concern but a strategic reality that determines partnership structures. This study's framework makes this explicit through the Platform Ecosystem Orchestration dimension.

4.3.4. Comparison with Ahiabenu (2022): From Regulatory Analysis to Strategic Alignment

Ahiabenu (2022) analyzes Ghana's FinTech regulatory framework, highlighting the evolution of central bank policies and identifying gaps in the current regime. His work is policy-focused: it evaluates the regulatory environment from a top-down perspective.

The Conceptual Strategy Framework developed in this study complements Ahiabenu (2022) by providing a bottom-up, firm-level perspective on regulation:

Table 21: Comparison with Ahiabenu (2022)

Aspect	Ahiabenu (2022)	This Study's Framework
Perspective	Top-down (regulator's view)	Bottom-up (firm's strategic view)
Focus	Policy design and gaps	Strategic navigation and compliance
Output	Policy recommendations	Strategic prescriptions for firms

"The advice would be not to be too rigid, but just maintain their flexibility so that people can also maintain their creativity." (Participant 7, 2026)

This participant quote reflects a firm-level perspective on regulation that complements Ahiabenu's policy analysis. The framework's Regulatory Alignment Mechanism captures this firm-level strategic behavior, including proactive policy input and sandbox participation.

4.3.5. Synthesis: What the Proposed Framework Adds

Table 22: Proposed Framework Adds

Existing Literature	Primary Contribution	What This Study's Framework Adds
Ng et al. (2023)	Identifies strategic challenges for FinTech platforms	Provides prescriptive, actionable guidance and contextualizes for Ghana
Senyo et al. (2022)	Describes ecosystem practices in Ghana	Explains <i>how</i> firms manage co-opetition and builds those practices into a strategic framework
de Reuver et al. (2018)	Sets research agenda for digital platforms	Operationalizes platform concepts for the asymmetric Ghanaian context
Ahiabenu (2022)	Analyzes regulatory policy from top-down	Provides bottom-up, firm-level strategic perspective

In summary, the Conceptual Strategy Framework developed in this study makes four distinct contributions relative to existing literature:

1. **Integration:** It synthesizes insights from regulatory analysis, platform theory, and strategic management into a single, coherent framework.
2. **Prescription:** Where existing literature is primarily diagnostic or descriptive, this framework offers actionable strategic guidance.
3. **Contextualization:** It adapts generic concepts (platform governance, institutional logics) to the specific realities of Ghana's FinTech ecosystem.
4. **Operationalization:** It translates theoretical constructs (e.g., "legitimacy trade-offs," "co-opetition") into concrete strategic dimensions with sub-components that firms can assess and act upon.

4.4. Interpretation of Key Findings

4.4.1. The Universality of Co-opetition

A central finding of this study is that co-opetition that is simultaneously competing and collaborating with the same partner is a universal reality for Fintechs in Ghana. This dynamic was most pronounced in relationships with Dedicated Electronic Money Issuers (DEMIIs/telcos). As one participant explained:

"You need MTN, but you're still competing with them. Some of these remittance and merchants you are after, for purposes of pricing, people will bypass you to go there because they can get it at a lower price. But it's about the advanced services you

provide." (Participant 8, 2026)

Another participant described the asymmetry in these relationships:

"The telco holds the wallet. You cannot operate without them. But they are also now entering the game proper. There's going to be a big shakeup." (Participant 6, 2026)

This finding extends the platform ecosystem literature (de Reuver et al., 2018) by showing that co-opetition is not peripheral but central to strategic positioning in Ghana's FinTech ecosystem. The power asymmetry between Dedicated Electronic Money Issuers and Payment Service Providers creates unique strategic tensions that require deliberate management.

4.4.2. Vertical Specialization as a Winning Strategy

The study found that successful emergent FinTechs focus on vertical specialization rather than attempting to build horizontal scale. This finding is particularly relevant to Ghana's market structure, which is dominated by two major telcos (MTN and Telecel) that collectively control over 80% of mobile money subscribers. Competing horizontally against these incumbents is unrealistic for emergent players.

Instead, successful Ghanaian FinTechs have identified underserved niches within the local economy:

- **Agricultural finance** for smallholder farmers in the Northern Region, where formal banking penetration is below 20%
- **Cross-border B2B payments** for Ghanaian SMEs trading with Nigeria, Kenya, and Rwanda under the African Continental Free Trade Area (AfCFTA)
- **Digital credit** for women entrepreneurs in urban markets (e.g., Agbogloboshie, Makola) who lack formal credit histories
- **Invoice factoring** for Ghanaian SMEs waiting 60-90 days for payment from large corporate clients

As Participant 3 stated:

"Pick a vertical and get deep. Do not build another horizontal wallet or lending platform. Build for fishermen, for tomato farmers, for hairdressers. Understand their cash flow cycle intimately." (Participant 3, 2026)

This finding resonates with the concept of entrepreneurial bricolage (Baker & Nelson, 2005): resource-constrained startups create value by combining available resources in novel ways to serve underserved niches.

4.4.3. Trust as the Foundational Currency

Across all participants, trust emerged as the most critical asset. Trust is built through transparency, reliability, and recourse. One participant emphasized the importance of transparent pricing:

"You need to be transparent in terms of the fees, in terms of the agreement. One thing that makes customers aggrieved is being overcharged or hidden fees." (Participant 7, 2026)

Another participant highlighted the operational philosophy of rapid refunds as a trust-building mechanism:

"Don't waste time. If it demands refunds, just refund the person, and it builds that trust that we need." (Participant 6, 2026)

Trust-building in Ghana's FinTech ecosystem takes on unique characteristics due to local factors:

- **The Ghana Card** has become a critical infrastructure for KYC and credit tracking. As one participant explained:

"Because of the Ghana Card, it is linked to your numbers. The credit bureau will pick it up. We're getting more sophisticated. Eventually, you're able to track that this person who was supposed to pay and is not paying has registered another number." (Participant 7, 2026)

- **Mobile money fraud** is a significant concern in Ghana, with the Bank of Ghana reporting over 10,000 fraud cases in 2024 alone. This explains why participants emphasized "recourse" (fast refunds) as a trust-building mechanism.
- **Agent networks** (over 150,000 in Ghana) serve as physical touchpoints for trust. Unlike purely digital FinTechs in Western markets, Ghanaian firms must manage a hybrid digital-physical trust architecture.

These Ghana-specific factors mean that trust-building strategies cannot be imported from other markets. The framework's Value Proposition and Trust Architecture dimension is explicitly designed to address these local realities.

4.4.4. Culture as Competitive Advantage

Participants consistently cited organizational culture as a durable competitive advantage. One participant described the culture at a leading Payment Service Provider (PSP):

"The culture is an open door. People are supposed to speak up. It's an open environment where people are good to share what they need." (Participant 6, 2026)

Another participant emphasized the strategic importance of learning culture:

"We encourage staff to take online courses, AI-related courses, to be more educated on these things. It helps them, it helps us. That's the culture we want to build." (Participant 7, 2026)

A third participant connected culture directly to strategy execution:

"Every strategy is hinged on the culture of the organization. The culture determines who you are, helps you achieve your target, and helps you come up with your strategy based on where you want to go." (Participant 8, 2026)

This finding aligns with the dynamic capabilities literature (Teece, 2007), which emphasizes that in rapidly changing environments, the ability to learn, adapt, and reconfigure resources is more important than any static resource advantage.

4.4.5. The Future: Artificial Intelligence (AI), Cross-Border Interoperability, and Embedded Finance

Looking ahead, participants consistently identified three frontiers for category leadership.

On artificial intelligence:

"If you are a FinTech and you don't have the capability to use AI to detect fraud and analyze payment patterns very well, you may be gradually drifting out of the game." (Participant 6, 2026)

On cross-border interoperability:

"The FinTech that cracks low-cost, instant, multi-currency payments between Ghana, Nigeria, Kenya, and Rwanda will create massive value. The next wave of category leaders will be Pan-African by design." (Participant 4, 2026)

On embedded finance:

"We can even embed a certain amount. Instead of charging 0.5% a day, we can allocate maybe 0.1% and pay to Ghana Revenue Authority and tell the client, 'We are paying tax for you.' They get their tax certificate. It's a psychological thing." (Participant 7, 2026)

These findings confirm that Ghanaian FinTech leaders are already anticipating and preparing for the next wave of innovation, and that category leadership in the future will require capabilities that go beyond current practices.

4.5. Limitations and Transferability

While the framework's primary limitation is context specificity, this is also its strength. The framework was designed specifically for Ghana's FinTech ecosystem, not as a universal model. The five dimensions particularly the emphasis on Dedicated Electronic Money Issuer partnerships, the Ghana Card integration, and the co-opetition dynamics are deeply rooted in Ghana's unique regulatory and market structure.

A participant captured this reality:

"When you go to other African countries, you cannot just flip your strategy. Yes, we seem to have the same kind of skin color, but our understanding and operations are quite different." (Participant 8, 2026)

This does not mean the framework is useless elsewhere. Rather, it means that adaptation is required. The dimensions may transfer, but the specific sub-components (e.g., which regulator, which partnerships) will vary by country.

Beyond context specificity, additional limitations include the qualitative methodology (no statistical generalizability), the temporal snapshot (data collected in early 2026), the reliance on self-reported data, and the single researcher bias inherent in qualitative analysis. The research aims for analytical generalization rather than statistical generalization, proposing a theory that can be tested and adapted in other contexts.

4.6. Target Journals and Dissemination

Given the interdisciplinary nature, target academic journals include Journal of Strategic Information Systems, Information Systems Journal, MIS Quarterly, and Electronic Journal of Information Systems in Developing Countries. Early results could be presented at International Conference on Information Systems (ICIS) or Hawaii International Conference on System Sciences (HICSS).

For industry dissemination, findings will be distilled into executive summaries and whitepapers shared with Ghana FinTech and Payments Association, Bank of Ghana, and relevant industry platforms to ensure practical impact and adoption. As one participant requested:

"When you are done with your thesis and it has been approved, send me a copy. I want to see what you have built and share it with my team." (Participant 6, 2026)

5. Conclusion

5.1. Restatement of Research Aim and Questions

This study was motivated by a central observation: Ghana has emerged as a regional leader in FinTech innovation, yet there is a lack of prescriptive understanding of how FinTech firms can strategically achieve and sustain category leadership within the country's complex, regulated, platform-based ecosystem.

The research was guided by one primary research question: *How can FinTech firms in Ghana design effective strategies to achieve category leadership by navigating regulatory frameworks and leveraging platform ecosystems?* Three secondary questions addressed the key factors constituting an enabling context (Secondary Question 1), their interactions (Secondary Question 2), and the framework to guide development (Secondary Question 3).

5.2. Summary of Key Findings

The study's key findings, grounded in the voices of participants, are summarized below.

5.2.1 Regulatory Alignment (Secondary Question 1)

Participants consistently emphasized the importance of formal relationships with the Bank of Ghana. As one stated:

"Every PSP knows that if you don't have a good relationship with the regulator, suddenly you're out of business." (Participant 8, 2026)

However, participants also identified barriers, including transaction limits and slow licensing processes. One participant advised policymakers:

"The advice would be not to be too rigid but just maintain their flexibility so that people can also maintain their creativity." (Participant 7, 2026)

5.2.2 Platform Ecosystem Orchestration (Secondary Question 2)

The universality of co-opetition was a central finding:

"Almost all the Dedicated Electronic Money Issuers you are fighting with them, at the same time, yet you need them to have enough electronic value at any point in time. Same applies to the banks." (Participant 8, 2026)

Participants emphasized that partnerships are governed by formal contracts and that the partner network itself is a strategic asset:

"Competitors can copy code; they cannot copy relationships. We have spent years building trust with banks and other Fintechs." (Participant 5, 2026)

5.2.3 Value Proposition and Trust Architecture

Trust emerged as the foundational currency. One participant articulated the operational philosophy:

"Don't waste time. If it demands refunds, just refund the person, and it builds that trust that we need." (Participant 6, 2026)

Vertical specialization was consistently identified as a winning strategy for emergent players:

"Pick a vertical and get deep. Do not build another horizontal wallet. Build for fishermen, for tomato farmers, for hairdressers." (Participant 3, 2026)

5.2.4 Strategic Capability Building

Participants emphasized deliberate talent development and organizational culture:

"There's a strategy to get the right people. There's a strategy to train; there's a strategy to build capacity." (Participant 6, 2026)

"Every strategy is hinged on the culture of the organization. The culture determines who you are and helps you achieve your target." (Participant 8, 2026)

5.2.5 Category Leadership (Primary Question and Secondary Question 3)

Participants defined leadership in diverse ways. One defined it as standard-setting:

"Category leadership means setting the de facto standards. When your API design becomes the template for the central bank's open banking guidelines, that is leadership." (Participant 1, 2026)

Another defined it through customer support:

"The strategy from leadership is that we take support very seriously. There are people 24/7 who are watching the platform." (Participant 6, 2026)

Looking ahead, participants identified AI, cross-border interoperability, and embedded finance as the critical frontiers:

"If you are a FinTech and you don't have the capability to use AI to detect fraud and analyze payment patterns, you may be gradually drifting out of the game." (Participant 6, 2026)

5.3. The Conceptual Strategy Framework

Based on these empirical findings, the study developed the Conceptual Strategy Framework for FinTech Category Leadership in Ghana. The framework integrates five interconnected dimensions:

1. **Regulatory Alignment Mechanism** – proactive engagement, sandbox participation, compliance-by-design
2. **Platform Ecosystem Orchestration** – Dedicated Electronic Money Issuer/bank partnerships, co-opetition management, formal Service Level Agreements

3. **Value Proposition and Trust Architecture** – vertical specialization, transparency, reliability, recourse
4. **Strategic Capability Building** – talent development, infrastructure, culture, compliance-by-design
5. **Market Context and Category Leadership** – environmental scanning, future factor anticipation (AI, cross-border, embedded finance)

The framework was validated through formative evaluation (member checking with six participants, expert panel review) and summative evaluation (retrospective case explanation, prospective scenario application). Expert panel ratings confirmed its credibility (4.33/5), novelty (4.00/5), clarity (4.33/5), and actionability (4.67/5).

5.4. Contribution to Knowledge

This study contributes to theory by demonstrating DSR application to strategic management, extending platform ecosystem theory with co-opetition dynamics, and contextualizing innovation frameworks for Ghana's FinTech ecosystem.

It contributes to practice by providing an actionable framework for FinTech entrepreneurs (strategic diagnosis and planning), regulators (understanding firm behavior), investors (due diligence lens), and incumbent institutions (evaluating partners and threats).

5.5. Limitations and Future Research

The study's primary limitation is context specificity. Future research should pursue quantitative validation of the framework, longitudinal case studies, cross-country comparative research, and the development of prioritization tools for resource-constrained firms.

5.6. Final Reflections

This research began with a simple observation: Ghana's FinTech ecosystem is vibrant and growing, but the strategic pathways to leadership remain under-theorized. Through rigorous empirical investigation and systematic artifact development, this study has provided a response: the Conceptual Strategy Framework for FinTech Category Leadership.

Several themes bear repeating as final reflections. First, trust is the only currency that matters. Second, co-opetition is not a bug; it is a feature to be managed, not solved. Third, vertical specialization wins over horizontal ambition. Fourth, culture is a strategic asset harder to replicate than any code or contract. Fifth, the future is already here—AI, cross-border interoperability, and embedded finance are active strategic priorities for today's leaders.

As one participant observed:

"Leadership is a race, not a finish line. You cannot be complacent. The market changes, the regulator changes, the technology changes. You have to keep running." (Participant 1, 2026)

This framework is offered as a map for that race, not a guarantee of arrival, but as a guide for the journey.

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Appendices:

Appendix A: Semi-Structured Interview Protocol

Study Title: Toward a Framework for an Enabling FinTech Ecosystem: A Qualitative Multiple-Case Study of Fintech Strategy, Regulation, and Platforms in Ghana

Researcher: Joseph Emmanuel Kwaku Anto Akomeah

Estimated Duration: 30-90 minutes

Opening Script:

Thank you for agreeing to participate in this study. Before we begin, I want to remind you that your participation is voluntary, you may decline to answer any question, and you may withdraw at any time. With your permission, I will record this interview to ensure accurate transcription. All responses will be anonymized, and neither your name nor your organization's name will appear in the final thesis. Do you have any questions before we start?

Section A: Background and Context

The first few questions are intended to help me understand your role and your organization's position in the Ghanaian FinTech landscape.

A1. Please describe your current role and how long have you been with the organization?

A2. Can you briefly describe your firm's history and its current position in the Ghanaian FinTech industry?

A3. What would you say are your core products or services, and who are your primary customer segments?

Section B: Navigating Regulation

This section focuses on your firm's experience with the regulatory environment in Ghana.

B1. How would you characterize your firm's relationship with regulators, particularly the Bank of Ghana? How frequently do you engage with them, and is this engagement formal or informal?

B2. Can you describe a recent regulatory change or policy that significantly affected your firm's strategy?

B3. How did you learn about this change, and what was your process for responding to it?

B4. In your view, what specific regulatory policies or practices have enabled FinTech innovation in Ghana?

- B5.** What regulatory barriers or challenges have hindered your firm's growth or innovation?
- B6.** How, if at all, does your firm attempt to engage with or influence regulatory development?
- B7.** Based on your experience, what advice would you give to policymakers to create a more conducive environment for FinTech leadership?

Section C: Platform Ecosystem Dynamics

The next set of questions explores your firm's relationships and interactions within the broader FinTech ecosystem.

- C1.** Who are your most important partners in the FinTech ecosystem, and why are they important to your firm?
- C2.** How did these partnerships form, and how would you describe the nature of these relationships?
- C3.** How would you describe your firm's relationship with traditional banks? Has this relationship evolved over time, and if so, how?
- C4.** How would you describe your firm's relationship with mobile network operators or telecom companies?
- C5.** How do you manage the tension between collaborating with some players while competing with others? Can you provide an example?
- C6.** Can you provide a specific example of a successful collaboration and what made it work?
- C7.** Can you provide an example of a partnership or relationship that was challenging, and explain why it was difficult?
- C8.** How do you perceive the role of government initiatives or state-led digital transformation efforts in shaping the ecosystem?
- C9.** In your view, what distinguishes a thriving, prosperous FinTech ecosystem from a stagnant one?

Section D: Strategic Capabilities and Category Leadership

This final section focuses on your firm's internal strategy, resources, and aspirations for market leadership.

- D1.** How do you define "market leadership" or "category leadership" in your specific area of FinTech?
- D2.** Would you consider your firm a leader in its category? Why or why not?

D3. What do you believe are the core capabilities, resources, or competencies that differentiate your firm from competitors?

D4. How were these capabilities developed? Were they deliberately planned or did they emerge over time?

D5. What do you see as the most significant strategic challenge your firm faces in achieving or sustaining market leadership?

D6. How are you currently addressing this challenge?

D7. How does your firm balance the need for rapid innovation with the demands of regulatory compliance?

D8. How do you build and maintain trust with your customers in a digital financial service?

D9. What role does your firm's culture, talent, or leadership play in your strategic success?

D10. If you were advising a new FinTech startup entering the Ghanaian market today, what strategic advice would you offer them?

D11. Looking three to five years ahead, what do you think will be the most critical factors for achieving category leadership in Ghana's FinTech sector?

Section E: Closing

E1. Is there anything else you would like to add that we have not covered in our discussion?

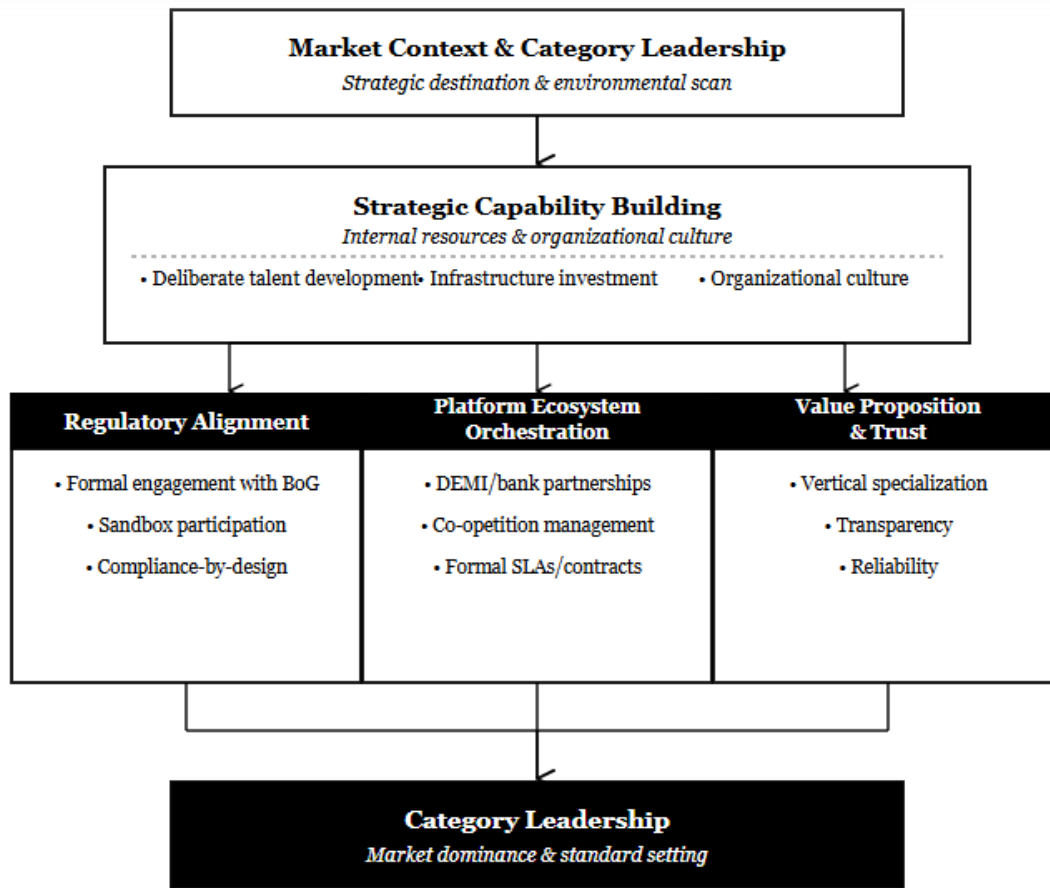
E2. Are there any documents, reports, or public materials you would recommend I review to better understand your firm's strategy?

E3. May I contact you again if I have follow-up questions or need clarification during the analysis phase?

Closing Script:

Thank you very much for your time and for sharing your valuable insights. Your contribution is greatly appreciated. As a reminder, your responses will be anonymized, and I will share a summary of key findings with you once the analysis is complete if you wish. Please feel free to contact me if you have any questions later.

Appendix B: First Artifact – Initial Framework Presented to Expert Panel



Appendix C: Participant Information Sheet

Study Title: Toward a Framework for an Enabling FinTech Ecosystem: A Qualitative Multiple-Case Study of Fintech Strategy, Regulation, and Platforms in Ghana

Researcher: Joseph Emmanuel Kwaku Anto Akomeah

Institution: Faculty of Engineering, University of Porto, Portugal

Supervisor: Prof. José Miguel Oliveira

1. Introduction

You are being invited to take part in a research study being conducted as part of a Master's thesis in Innovation and Technological Entrepreneurship (MIET). Before you decide whether to participate, it is important for you to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully.

2. Purpose of the Study

Ghana has emerged as a regional leader in FinTech innovation, yet little is known about the strategic pathways that enable FinTech firms to achieve and sustain market leadership within its complex, regulated environment. This study aims to develop a conceptual strategy framework to guide FinTech firms toward category leadership.

3. Why Have I Been Invited?

You have been invited because your organization has been identified as a significant actor within Ghana's FinTech ecosystem. Your professional experience and strategic perspective will provide essential insights.

4. Do I Have to Take Part?

No, participation is entirely voluntary. If you do decide to participate, you will be asked to sign a consent form. You are free to withdraw at any time without giving a reason and without any negative consequences.

5. What Will Happen If I Take Part?

If you agree to participate, you will be asked to take part in a semi-structured interview lasting approximately 30-90 minutes. The interview will be scheduled at a time convenient for you and conducted via secure video conference or in person. With your permission, the interview will be audio-recorded.

6. What Are the Possible Benefits of Taking Part?

While there are no direct material benefits, your contribution will directly inform the development of a strategy framework aimed at supporting Ghana's FinTech sector. A summary of the research findings will be shared with all participants upon completion.

7. What Are the Possible Risks of Taking Part?

There are no anticipated physical or psychological risks. The primary consideration is the protection of your confidentiality.

8. Will My Participation Be Kept Confidential?

Yes. Your name and your organization's name will not appear in the final thesis or any publications. Pseudonyms will be used. All data will be stored securely on password-protected university servers, accessible only to the researcher and supervisor.

9. Data Protection and Storage

All data will be handled in accordance with the University of Porto's data protection policies and the General Data Protection Regulation (GDPR). Audio recordings will be transcribed and securely deleted after thesis submission. You have the right to access, correct, or request deletion of your data.

10. What Will Happen to the Results of the Study?

The results will form a master's thesis, publicly available through the University of Porto's academic repository. Findings may also be presented at conferences and published in journals.

11. Who Has Reviewed the Study?

This study has been reviewed and approved by the Institutional Review Board (Ethics Committee) of the University of Porto.

12. Contact for Further Information

Researcher: Joseph Emmanuel Kwaku Anto Akomeah

Email: up202302587@edu.fe.up.pt

Supervisor: Dr. José Miguel Pereira dos Santos de Oliveira

Email: jmpso@fe.up.pt

Appendix D: Informed Consent Form

Study Title: Toward a Framework for an Enabling FinTech Ecosystem: A Qualitative Multiple-Case Study of Fintech Strategy, Regulation, and Platforms in Ghana

Researcher: Joseph Emmanuel Kwaku Anto Akomeah

Supervisor: Prof. José Miguel Oliveira

Institution: Faculty of Engineering, University of Porto, Portugal

Please read the following statements and initial each box to indicate your agreement.

	Statement	Initials
1	I confirm that I have read and understood the Participant Information Sheet for the above study. I have had the opportunity to ask questions and have had these answered satisfactorily.	
2	I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason.	
3	I understand that data collected during the study may be looked at by the researcher and his supervisor. I give permission for these individuals to have access to my anonymized data.	
4	I understand that my participation involves an interview that will be audio-recorded. I give permission for these recordings to be made.	
5	I understand that direct quotations from my interview may be used in the final thesis and any subsequent publications, but that these will be anonymized so that I cannot be identified.	
6	I understand that my name and my organization's name will not appear in any reports or publications resulting from this research.	
7	I agree to take part in the above study.	

Participant:

Name of Participant:

Signature:

Date:

Researcher:

Name of Researcher:

Joseph Emmanuel Kwaku Anto Akomeah

Signature:

Date:

Appendix E: Anonymized Case Profiles

Table E1: Anonymized Participant Profiles

Participant	Anonymized Role	Case Type	Interview Date	Interview Duration
Participant 1	Senior Technical Manager, Digital Financial Services	Telco-led Dedicated Electronic Money Issuer	January 30, 2026	56 mins
Participant 2	Senior Manager, Technology & Digital Projects	Technology/Data Consultant	February 1, 2026	50 mins
Participant 3	Chief Product & Operations Officer	Agri-FinTech	February 17, 2026	49 min
Participant 4	Head of Product (Identity/Blockchain) & Venture Partner	Identity/Blockchain FinTech	March 6, 2026	59 mins
Participant 5	Chief Operating Officer & Country Manager	Pan-African B2B FinTech	March 30, 2026	49 mins
Participant 6	Information Security Manager	Enhanced PSP	April 19, 2026	64 mins
Participant 7	Co-Founder & Chief Executive Officer	Digital Credit Service Provider	May 12, 2026	55 mins
Participant 8	Head of Finance & Treasury	Payment Service Provider	May 21, 2026	47 mins

Average Interview Duration: 54 minutes