

Bridging the Social and Institutional Gaps in FinTech Adoption: A Stakeholder Perspective from Qatar's State-Led Digital Economy

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Abstract

Financial Technology (FinTech) is widely promoted as a catalyst for economic diversification in the Gulf, especially within strategic visions like Qatar National Vision 2030. However, policy enthusiasm often overlooks the practical and social complexities of adoption. This study explores how institutional design, behavioural factors, and stakeholder experiences shape FinTech's effectiveness in Qatar, addressing the gap between strategic ambition and real-world implementation. Using a mixed-methods approach, the study draws on structured surveys and open-ended responses from FinTech customers, company representatives, and policymakers. Data collected over three months in 2024 provides a cross-sectional view of Qatar's evolving FinTech landscape. The analysis reveals that while FinTech is institutionally supported by entities like the Qatar Central Bank and Qatar Development Bank, its adoption remains uneven and socially constrained. Stakeholders acknowledged FinTech's potential for financial inclusion and entrepreneurship but cited persistent barriers such as fragmented regulation, limited market autonomy, and a lack of trust among underserved groups. Digital infrastructure and investment, though necessary, were seen as insufficient without greater attention to digital literacy, cultural accessibility, and decentralised innovation. The study contributes to scholarly debates on digital transformation in rentier states, highlighting the importance of participatory, adaptive governance. Rather than viewing FinTech solely as a tool of diversification, findings suggest success depends on embedding trust, inclusive design, and cross-sector collaboration within national strategies.

Keywords

Financial Technology (FinTech), Economic Diversification, Innovation, Digital Finance, Digital Transformation, FinTech Adaptation

1. Introduction

The global financial sector is rapidly evolving due to the rise of Financial Technology (FinTech), which harnesses innovations like blockchain, AI, and mobile banking to transform traditional services (Arner et al., 2016; Gomber et al., 2018). FinTech is widely seen as a driver of financial inclusion, entrepreneurship, and economic growth, particularly in economies aiming to diversify beyond resource dependency (Demirguc-Kunt, Klapper, Singer, Ansar, & Hess, 2018; Philippon, 2016; Murinde, Rizopoulos, & Zachariadis, 2022).

This paper explores how FinTech addresses institutional and social barriers in Qatar's state-led digital economy, focusing on its role in advancing inclusion, digital trust, and innovation under the Qatar National Vision 2030 (QNV 2030).

Qatar, a rentier state reliant on natural gas, seeks to modernize its economy through FinTech, with strong backing from institutions like QCB, QFC and QDB (Mohamed, Al-Kuwari, & Al-Marri, 2024). Yet, in the MENA region—and especially in Qatar—FinTech adoption remains underexplored, shaped by complex interactions between centralized governance, ambitious policy, and inclusion challenges (Barajas & Ndoeye, 2022).

While FinTech is globally associated with financial inclusion and innovation, its adoption in the MENA region, particularly in Qatar, remains underexplored. The convergence of centralized governance, digital ambition, and social inclusion challenges presents a complex and context-specific landscape that requires deeper investigation (Barajas & Ndoeye, 2022; Villegas-Mateos, 2023). Despite strong national ambitions, a conspicuous gap exists in contextually grounded research examining how FinTech adoption interacts with Qatar's socio-economic transformation, particularly in terms of trust-building, inclusive access, and regulatory innovation. Existing studies tend to focus on broad regulatory frameworks or cross-country comparisons across the GCC, often overlooking Qatar's distinctive institutional landscape and socio-cultural characteristics (Barajas & Ndoeye, 2022). Moreover, the practical challenges of translating top-down enthusiasm into widespread adoption, such as digital literacy gaps, fragmented governance structures, and constraints on market autonomy, remain insufficiently examined in current literature (Ibrahim & Khalifa, 2020; Shawki, 2024; AlSuwaidi & Mertzanis, 2024).

While prior research highlights broad regulatory challenges and the promise of FinTech for economic diversification in the GCC, there is a critical need for more contextually grounded, empirical studies that capture the complex social and institutional factors shaping FinTech adoption in Qatar. This includes understanding how trust, inclusion, and governance interact within a rentier state model marked by centralized policy-making and unique socio-cultural dynamics (Barajas & Ndoeye, 2022; Villegas-Mateos, 2023).

This study responds to this gap by integrating stakeholder perspectives from FinTech users, providers, and regulators, thereby moving beyond high-level policy discourse to reveal the lived realities, behavioural drivers, and institutional enablers critical to FinTech's sustainable growth in Qatar's digital economy.

Findings suggest that while Qatar's FinTech sector enjoys strong institutional support, adoption is hindered by trust deficits, regulatory fragmentation, and barriers to access for SMEs, youth, and non-English speakers. These gaps highlight the need for inclusive governance and adaptive policy frameworks grounded in user experience.

To address these objectives, the study adopts a mixed-methods research design, combining quantitative surveys and qualitative thematic analysis across three key stakeholder groups: FinTech customers, company representatives, and policymakers. This approach enables triangulation of broad adoption patterns with deeper insights into institutional dynamics, cultural perceptions, and governance challenges. Data collected in 2024 provides a timely snapshot of Qatar's evolving FinTech landscape, capturing both top-down initiatives and on-the-ground experiences. By situating FinTech adoption within the broader context of a rentier state pursuing economic diversification, the study offers empirically grounded, context-specific findings that enrich academic understanding and inform policy discourse. This contribution is particularly valuable given the paucity of focused research on the socio-institutional dimensions of FinTech in the Gulf, positioning Qatar as a relevant case study for other rentier economies navigating digital transformation and inclusion challenges.

This paper proceeds as follows: it first reviews the relevant literature on FinTech adoption, financial inclusion, and economic diversification in rentier-state contexts. It then details the research design employed to capture stakeholder perspectives in Qatar's digital economy. The subsequent sections present and discuss the integrated findings, highlighting the interplay of institutional frameworks, trust dynamics, and regulatory innovation. The paper concludes by outlining practical and policy implications for fostering inclusive and sustainable FinTech growth in Qatar, contributing to the broader discourse on digital transformation in resource-dependent economies.

2. Literature Review

FinTech has become a central pillar in the economic diversification agendas of Gulf rentier states, particularly in Qatar, where it is strategically embedded in the Qatar National Vision 2030 (QNV 2023) and the Third Financial Sector Strategy (3FSS) (QFTH, 2024; Maait & Merhi, 2025; Qatar Central Bank, 2023). Positioned as a driver of financial inclusion, entrepreneurship, and digital transformation, FinTech is promoted as a solution to structural dependencies on hydrocarbon revenues and a means of fostering private-sector growth (QFTH, 2024; Qatar Financial Centre, 2024). However, while policy frameworks and institutional support are robust, evident in initiatives by the Qatar Central Bank (QCB), Qatar Development Bank (QDB), and Qatar FinTech Hub (QFTH), practical adoption remains constrained by social, regulatory, and behavioural challenges (AlNasr, 2024; Al-Sharshani, Al-Sharshani, & Malik, 2025; Faccia & Petratos, 2025). This literature review critically examines these tensions by exploring state-led digital de-

velopment in rentier economies, the evolving role of FinTech in financial sector growth and inclusion, and the socio-institutional barriers that continue to shape adoption outcomes in Qatar's emerging FinTech ecosystem.

2.1. State-Led Diversification in Rentier Economies: The Promise and the Paradox

Efforts to diversify the economies of rentier states, particularly in the Gulf, have gained renewed momentum in the post-commodity boom era. Countries such as Qatar have adopted long-term strategic visions aimed at reducing reliance on hydrocarbons and promoting knowledge-based, innovation-driven growth. QNV 2030 embodies this ambition, positioning diversification as a national imperative for resilience, intergenerational equity, and global competitiveness (NPC, 2025; Villegas-Mateos, 2023). In this context, FinTech has emerged as a prominent policy lever, seen as both a symbol and a facilitator of economic modernisation.

These state-led diversification strategies, however, are deeply shaped by the political economy of rentierism. Rentier State Theory (RST), originally developed by Mahdavy (1970) and expanded by Beblawi (1987), explains how governments that derive the bulk of their revenues from external rents, particularly hydrocarbons, tend to centralize economic control, distribute wealth through support, and suppress taxation-based accountability. In such settings, the state is not only the primary economic actor but also the chief orchestrator of innovation and industrial change. This has led to what Gray (2011) terms a "late rentierism" model, wherein Gulf states engage in modernisation without fundamentally transforming the centralised logic of their political economies.

Qatar's FinTech ecosystem illustrates this paradox clearly. While institutions such as the QCB, QDB, QFC, and QFTH have taken active roles in regulating, funding, and accelerating FinTech innovation, the approach remains largely top-down (Hameed, 2020; Qatar Development Bank, 2024; QFTH, 2024). Public institutions design the roadmaps, allocate funding, and define success metrics. Although this state-led model has provided significant early-stage momentum, for example, through initiatives such as regulatory sandboxes, incubation programmes, and national strategies (Qatar Central Bank, 2023; QFTH, 2024), it also reproduces the structural dependencies of rentier governance. FinTech startups remain reliant on state-backed funds, partnerships with incumbent banks, and access to public infrastructure.

Critics argue that such an approach risks fostering "token entrepreneurship", where innovation is permitted only within boundaries set by the state, without challenging the entrenched dominance of the public sector (Hameed, 2020; Lang & Aldori, 2020). This limits market dynamism and curtails the autonomy of private actors. Empirical evidence from Qatar supports this concern: despite strong policy support, SME access to credit remains disproportionately low, at only 3.2% of total private sector lending in 2023 (QDB, 2024). Furthermore, FinTech startup

formation and independent scaling have lagged behind regional peers like the UAE and Bahrain, which offer more decentralized regulatory frameworks and faster market entry (Qatar Financial Centre Collaboration with Refinitiv, 2021; Kismawadi, 2023).

The promise of FinTech in Qatar is thus embedded in a contradictory institutional context. On one hand, digital finance is seen as a transformative pathway toward post-oil economic resilience. On the other hand, the mechanisms through which it is promoted often reinforce the very structures that hinder entrepreneurial autonomy, private capital mobilisation, and decentralised innovation (Gray, 2019; Mishrif, 2018). This contradiction underscores a central challenge of state-led diversification: the difficulty of nurturing innovation ecosystems within institutional frameworks that remain hierarchical and resource-distributive.

In this context, the notion of decentralised innovation is particularly significant. While Qatar's FinTech ecosystem operates within a state-orchestrated framework, decentralised innovation refers to the diffusion of creative capacity, decision-making, and problem-solving across multiple market and societal actors rather than through a single central authority, consistent with the notion of distributed governance described by Bodó, Gervais, and Quintais (2021) and De Filippi and Loveluck (2016). In practice, this would involve enabling startups, SMEs, and research institutions to experiment and scale without excessive procedural dependence on government directives or funding channels. Within a rentier context such as Qatar, achieving decentralised innovation does not necessarily imply a withdrawal of the state but rather a shift toward facilitative governance, one that empowers private and civic actors to co-create solutions while maintaining alignment with national objectives. This dynamic balance between state coordination and distributed entrepreneurial autonomy represents a critical test for the long-term sustainability of Qatar's digital transformation.

As the next section explores, FinTech's role in bridging these structural gaps depends not only on its technological promise, but also on its ability to align with broader development goals such as financial inclusion, private sector empowerment, and knowledge-based productivity.

2.2. FinTech as a Strategic Enabler of Diversification

Following Qatar's state-led drive for diversification, FinTech has been positioned as a key lever to support this transformation. By expanding access to finance, enabling new forms of investment, and fostering entrepreneurship, FinTech is increasingly viewed as a practical enabler of structural change, particularly in non-oil sectors. In the Qatari context, its promise lies in its potential to correct legacy financial imbalances and unlock growth among underserved segments such as SMEs, youth, and women entrepreneurs (Qatar Development Bank, 2020).

FinTech's role in promoting financial inclusion is especially critical. Despite Qatar's macroeconomic stability and advanced infrastructure, recent studies show that

only 13% of MSMEs use bank financing to start operations, while 76% rely on personal savings. This reflects persistent financial exclusion in a highly banked economy and highlights structural inefficiencies in credit allocation. FinTech offers alternative financing mechanisms—such as crowdfunding, peer-to-peer lending, and Islamic digital finance, that can bypass traditional barriers and broaden economic participation (Al Rifai, AL-Obaidly, Al Halbusi, Al Baker, & Abdelazim, 2025; Qatar Financial Centre, 2024; Charfeddine, Umlai, & El-Masri, 2024; Felimban & Al-zahrani, 2025; Qatar Development Bank, 2020; Luciani, 1990).

The state's ambition to align FinTech with national development is evident in its strategic documents. QNV 2030, the Third National Development Strategy, and the QCB's 3FSS explicitly identify FinTech as a means to catalyse private sector growth, support SMEs, and modernise financial services (Maait & Merhi, 2025; Qatar Central Bank, 2023). Government-backed programmes, such as the sandbox initiative, the QFTH accelerator, and QDB's green financing instruments, have sought to translate this policy intent into market practice (QFTH, 2024). As of 2024, QFTH had committed \$8.28 million in pre-seed investments to 70 startups, with a total ecosystem valuation exceeding \$525 million (QFTH, 2024).

FinTech has also begun shaping Qatar's diversification agenda through targeted verticals that align with national development goals. For instance, green finance, facilitated by digital platforms, is enabling investment in sustainable sectors. QNB's \$600 million green bond issuance and Doha Bank's suite of green consumer products exemplify this trend (QNB Group, 2025; Doha Bank, 2022). Similarly, Islamic FinTech is gaining traction for delivering Sharia-compliant services that reflect social values while addressing the financial needs of unbanked populations. Instruments such as peer-to-peer lending, digital sukuk, and Islamic ETFs are expanding access to ethical finance and supporting broader economic participation (Qatar Financial Centre, 2024; Marmore MENA Intelligence Report, 2019).

At the same time, FinTech is fostering export readiness and international integration via digital trade finance and blockchain applications. These technologies streamline documentation, lower administrative burdens, and enhance cross-border access, particularly for SMEs struggling with conventional banking systems (Botosh, Dahdal, & Truby, 2020). Such developments directly support Qatar's ambition to boost non-oil exports and embed itself within regional value chains.

However, the transformative potential of FinTech remains shaped by the constraints of the rentier-state model. Much of Qatar's FinTech ecosystem continues to rely heavily on public institutions and top-down initiatives. This raises concerns about whether meaningful market dynamism and private innovation can emerge in an environment where capital, incentives, and direction remain largely state-controlled (Hameed, 2020; Ennis, 2014). Scholars caution that unless FinTech empowers new entrants and challenges entrenched structures, its impact may be confined to incremental improvements rather than structural transformation (Lang & Al-dori, 2020; Mishrif, 2018).

These tensions suggest that while FinTech can play a strategic role in economic diversification, its long-term contribution depends on the degree to which it is deployed inclusively, autonomously, and beyond state-defined boundaries. The next section investigates these dynamics by examining the social, institutional, and regulatory barriers to FinTech adoption in Qatar.

2.3. Constraints on FinTech Adoption: Social, Institutional, and Regulatory Barriers

While Qatar has made notable strides in establishing a FinTech ecosystem aligned with its economic diversification goals, adoption remains constrained by a complex interplay of social, institutional, and regulatory factors. These limitations challenge the assumption that state-led innovation alone can deliver inclusive and sustainable transformation in rentier economies.

At the user level, several persistent barriers undermine the accessibility and trustworthiness of FinTech platforms. Trust remains low across the GCC due to ongoing concerns about cybersecurity, data privacy, and regulatory uncertainty (Giwa-Osagie & Osiobe, 2021; Faccia & Petratos, 2025; PricewaterhouseCoopers, 2025). In Qatar, digital literacy, particularly among older users and non-English speakers, remains limited, further constraining engagement (Al-Sharshani, Al-Sharshani, & Malik, 2025). Although digital infrastructure exists, behavioural reluctance to move away from traditional banking services, often seen as more secure and familiar, is widespread, especially among SMEs, women, and low-income users (EFInA, 2021; Alsalem & Abu-Shanab, 2022).

Institutional fragmentation presents a second critical constraint. Regulatory responsibilities are distributed across multiple actors, including the QCB, QFC, QFTH, and QDB, with overlapping mandates and limited coordination (Qatar Financial Centre Collaboration with Refinitiv, 2021; AlNasr, 2024). This diffusion of authority often results in inconsistent guidance for startups, particularly when navigating licensing and compliance requirements. Although the QCB's Regulatory Sandbox provides a controlled path to market, its strict eligibility criteria and high compliance costs can deter early-stage firms (Qatar Central Bank, 2023; Djafri, 2017). By contrast, the UAE and Bahrain have adopted more agile regulatory approaches, allowing faster market entry and attracting foreign FinTech investments (Kismawadi, 2023).

Despite improvements, Qatar's technological infrastructure still poses challenges for FinTech development. Many incumbent banks continue to operate on legacy systems that hinder interoperability, data integration, and real-time service provision, core requirements for agile FinTech platforms (Botosh, Dahdal, & Truby, 2020). These system inefficiencies are compounded by cybersecurity gaps. While Qatar has made progress, its cybersecurity frameworks remain below global best-practice benchmarks, particularly in legal protections, institutional coordination, and technical readiness. Risks such as denial-of-service attacks, insecure APIs, and insider breaches remain significant concerns (Faccia & Petratos, 2025;

National Cyber Security Agency, 2024; Al-Sharshani, Al-Sharshani, & Malik, 2025).

Human capital limitations represent an equally critical constraint on FinTech development in Qatar. The sector demands professionals with hybrid expertise across finance, technology, and, particularly for Islamic FinTech, Shariah compliance. However, the local talent pool remains limited due to underdeveloped academic curricula and insufficient collaboration between universities and the FinTech industry (Amin, 2024). While initiatives such as the QCB's partnerships with local institutions and capacity-building workshops hosted by HBKU signal progress, they have yet to generate the scale or depth of talent necessary to meet accelerating demand (Cherqaoui, 2022; Amin, 2024).

Within Islamic FinTech, regulatory and institutional inertia adds further friction. Despite its potential to enhance financial inclusion, growth is hampered by inconsistent interpretations of Shariah compliance, limited access to investment capital, and a shortage of professionals with dual expertise in Islamic finance and digital technologies (Alam & Nazim, 2021; Marmore MENA Intelligence Report, 2019). Moreover, Islamic FinTech remains underrepresented in Qatar's regulatory sandbox and commercial infrastructure, restricting its ability to scale or engage in meaningful cross-border collaborations (AlNasr, 2024; Rabbani et al., 2020).

Together, these barriers highlight that while Qatar has succeeded in positioning FinTech as a strategic national priority, its effective and inclusive adoption is significantly more complex. Overcoming these limitations will require more than regulatory refinement, it will also depend on expanding digital literacy, promoting broader stakeholder engagement, and empowering those traditionally excluded from the financial system. The next section explores how Qatar's state-led innovation model seeks to address these challenges through coordinated investment, institutional reform, and ecosystem development.

2.4. FinTech Ecosystem Development in Qatar: Institutional Responses and Strategic Coordination

While Qatar has made notable strides in establishing a FinTech ecosystem aligned with its economic diversification goals, adoption remains constrained by a complex interplay of social, institutional, and regulatory factors. These limitations challenge the assumption that state-led innovation alone can deliver inclusive and sustainable transformation in rentier economies.

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2.5. Theoretical Perspectives on FinTech-Led Diversification in Rentier Economies

Understanding the potential and limitations of FinTech-led economic diversification in rentier states like Qatar requires a multi-theoretical approach. While state-led strategies and digital finance are widely promoted in national policy narratives, the real-world adoption and impact of FinTech depend on a complex interplay between institutional design, social behaviour, and structural dependencies. This section synthesises insights from five theoretical frameworks, Finance-Growth Theory, Rentier State Theory, Diffusion of Innovation (DOI), Technology Acceptance Model (TAM), and the Unified Theory of Acceptance and Use of Technology (UTAUT), to provide a conceptual lens through which these dynamics can be critically assessed.

The Finance-Growth Theory offers the foundational argument that financial sector development is a key driver of economic expansion and structural transformation. In the context of rentier economies, this theory helps explain why Qatar has positioned financial modernisation as a central pillar of its diversification agenda under QNV 2030 (King & Levine, 1993; Demirgüç-Kunt & Detragiache, 1998). However, the theory's relevance must be carefully contextualised. Scholars have noted that in countries with centralised institutions and weak regulatory independence, rapid financial development can introduce volatility and inefficiencies rather than sustainable growth (Demetriades & Hook Law, 2006; Mishra & Narayan, 2015). In Qatar, the dominance of state institutions in allocating financial resources and guiding FinTech strategy reflects a supply-leading model. Yet, the broader demand-side constraints, such as low SME credit access or weak private investment in FinTech, highlight a disconnect between financial sector expansion and inclusive, private-sector-led growth (QDB, 2024; AlNasr, 2024).

This disconnect is further illuminated by Rentier State Theory, which critically frames the structural dependence on hydrocarbon revenues and state-controlled economic planning. While Qatar has made strategic efforts to move beyond classic rentierism, investing in financial infrastructure, sovereign wealth funds, and digital platforms, the state remains the primary orchestrator of FinTech development (Gray, 2019; Hameed, 2020). This top-down approach has enabled progress but also risks reinforcing what Hameed (2020) calls "token entrepreneurship", where innovation ecosystems are built around state priorities rather than market needs. FinTech's role within this model is paradoxical: it is framed as a tool of diversifi-

cation, yet it often operates within institutional constraints that limit its potential for decentralised, disruptive growth (Lang & Aldori, 2020). The gap between strategic ambition and lived adoption, raised earlier in this paper, reflects this tension.

To better understand how digital finance initiatives are adopted, or resisted, within such contexts, behavioural frameworks become essential. The DOI theory provides a valuable lens for analysing how FinTech spreads across social systems. In Qatar, factors such as trialability and observability have been actively supported through regulatory sandboxes and state-backed pilot programmes (Qatar Central Bank, 2023; Alsartawi, 2024). However, the innovation's perceived complexity and limited compatibility with traditional banking culture, especially among SMEs and older consumers, slow adoption among the early and late majority (Alsartawi, 2024; Gray, 2019). The DOI model thus helps identify the socio-cultural frictions that remain even when infrastructure and regulation are in place, pointing to the behavioural gap between top-down design and bottom-up engagement.

This behavioural layer is deepened by TAM, which highlights how perceived usefulness and ease of use shape users' willingness to engage with new technologies. In Qatar, state endorsement and institutional investment enhance the perceived usefulness of FinTech platforms (Alsartawi, 2024), but actual ease of use remains uneven, particularly for non-English speakers and digitally inexperienced users (Al-Sharshani, Al-Sharshani, & Malik, 2025). TAM's focus on individual perceptions underscores the need for user-centred design and public education, which are often underemphasised in state-centric policy models. Moreover, while TAM helps identify the cognitive factors influencing adoption, it does not fully account for social or cultural dynamics, limiting its standalone explanatory power in contexts like Qatar.

Here, UTAUT and UTAUT2 offer a more comprehensive framework. By incorporating variables such as social influence and facilitating conditions, UTAUT aligns more closely with the realities of FinTech engagement in Qatar's institutional landscape. Research shows that adoption is significantly shaped by peer recommendations, religious endorsements, and the availability of reliable infrastructure (Felimban & Alzahrani, 2025; Alshami, Abdulghafor, & Aborujilah, 2022). Facilitating conditions, particularly state-led investment and regulatory clarity, play a critical role in lowering perceived risk and improving confidence. Yet, these same conditions may also contribute to market passivity, where adoption is driven by state signalling rather than user demand or competitive differentiation (Gray, 2019). The UTAUT framework thus highlights both the enablers and limitations of state-supported digital ecosystems, helping to explain the uneven adoption patterns found in this study.

Taken together, these five frameworks reveal that the success of FinTech in driving diversification within rentier economies depends not only on technological or policy innovation but also on behavioural adaptation, institutional reform, and cultural alignment. Financial sector expansion, while necessary, is insufficient

if it remains state-led and structurally exclusive. Similarly, digital infrastructure and strategic planning do not guarantee user engagement without attention to trust, literacy, and social relevance. The theoretical perspectives discussed above reinforce the paper's core argument: that FinTech's transformative promise must be assessed through an integrated, context-specific lens that accounts for both structural ambition and lived realities. As the next section demonstrates, these theoretical insights find strong resonance in the empirical findings from Qatar's FinTech ecosystem.

3. Methodology

To examine how FinTech adoption in Qatar contributes to economic diversification, this study adopts a mixed-methods design that captures both quantitative and qualitative insights. A multi-stakeholder approach underpins the research, allowing for a holistic assessment of the enablers and constraints shaping Qatar's FinTech landscape. The design integrates perspectives from three key groups, FinTech customers, companies, and policymakers, thereby capturing both supply- and demand-side dynamics as well as the broader institutional, regulatory, and socio-cultural context.

3.1. Research Design and Data Collection

Primary data were collected through surveys and semi-structured interviews with 163 FinTech customers, 52 representatives from FinTech companies, and 14 policymakers. This triangulated data collection strategy ensured the inclusion of diverse perspectives across the ecosystem. A mixed-methods approach was chosen to enhance the study's explanatory power by combining statistical analysis with qualitative interpretation, enabling a deeper understanding of the complex factors influencing FinTech development in Qatar.

These three stakeholder groups were selected because they represent the core actors shaping FinTech adoption from complementary perspectives: customers reflect user-level perceptions and behavioural dynamics; company representatives capture supply-side innovation and operational challenges; and policymakers provide insight into regulatory design and institutional coordination. Other potential stakeholders, such as venture capital investors, academics, and consultants, were considered during the scoping phase but excluded to maintain analytical focus on those directly involved in FinTech development, regulation, and use. This triadic approach allows for a balanced view of both market and institutional dynamics while keeping the study feasible and contextually grounded.

3.2. Quantitative Analysis

Quantitative data derived from the closed-ended questions were analysed using SPSS. Descriptive statistics (frequencies, means, standard deviations) were used to summarise respondent characteristics and identify adoption trends, perceived barriers, and support mechanisms.

Where appropriate, chi-square tests examined relationships between categor-

ical variables, such as stakeholder type and perceived regulatory support. In addition, one-sample t-tests were employed to assess average agreement with key Likert-scale items, including trust in FinTech services and perceptions of FinTech's role in economic diversification.

While not intended to be generalizable, the quantitative strand provided insight into broad stakeholder sentiments and patterns that informed deeper qualitative interpretation.

3.3. Qualitative Analysis

Open-ended responses were thematically analysed using NVivo software to extract rich, contextual insights. The analysis followed an inductive coding strategy, allowing key themes to emerge organically from the data, without imposing predetermined categories. Coding was carried out separately for each stakeholder group to retain the specificity of perspectives.

Initial familiarisation with the data was followed by open coding, during which responses were tagged according to recurring topics such as cybersecurity, collaboration, infrastructure, and policy support. These were then grouped into broader themes, refined through iterative cycles, and validated against the research objectives.

Cross-group comparisons were also conducted using matrix coding queries in NVivo, enabling the identification of both shared concerns and divergent perspectives across customer, company, and policymaker responses. Visual tools such as thematic maps and word clouds were used to support the analysis.

3.4. Ensuring Credibility and Rigour

Several measures were taken to ensure the credibility and trustworthiness of the findings. First, triangulation was embedded in the design by collecting data from multiple sources (customers, companies, and policymakers) and integrating both quantitative and qualitative methods. This methodological triangulation strengthened the robustness of the insights and allowed for a richer interpretation. Second, theory triangulation was achieved by drawing on a combination of conceptual frameworks, including the Finance-Growth theory, Rentier State theory, and technology adoption models (DOI, TAM, UTAUT) to interpret findings from multiple angles. Third, the survey instruments were developed through an iterative process, including peer feedback and academic supervisory review, to ensure content relevance and clarity. Finally, data were collected and analysed ethically, with anonymity maintained for all participants. The diversity of perspectives helped reduce the risk of bias and provided a holistic view of Qatar's FinTech ecosystem in relation to the national diversification agenda.

4. Quantitative Findings and Discussion

The quantitative strand of this research offers a grounded, data-informed perspective on the lived dynamics of FinTech adoption in Qatar's emerging innovation

ecosystem. While policy discourse in the region often assumes that infrastructure and institutional backing are sufficient, this analysis interrogates that assumption by exploring stakeholder-level perceptions of trust, regulatory support, and inclusion. Drawing on structured survey data from both FinTech companies and customers, the findings reveal a dual pattern: alignment with national strategic ambitions on one hand, and friction at the operational and behavioral levels on the other. The results build directly on the theoretical frameworks discussed earlier, particularly Rentier State Theory, UTAUT, and Diffusion of Innovation, while addressing the literature's persistent blind spot: the lack of contextualized, empirically rich insights from state-led digital economies in the Gulf.

4.1. Institutional Trust and Regulatory Confidence

Survey results indicate high levels of trust in Qatar's financial institutions and regulators. Over 70% of respondents agreed or strongly agreed that the QCB and the Qatar Financial Centre Regulatory Authority (QFCRA) provide a stable and credible regulatory environment. This supports arguments in the literature (Zetzsche, Buckley, Arner, & Barberis, 2020; Arner, Barberis, & Buckley, 2016) that institutional trust is foundational to FinTech development.

However, only 43% of respondents perceived the regulatory approval process as fast or transparent, suggesting that procedural trust is weaker than institutional reputation. This aligns with (Alaassar, Mention, & Aas, 2021), who argue that perceived inefficiencies in regulatory systems can create adoption friction. Chi-square results further highlight this issue: as shown in **Table 1**, only 34.6% of stakeholders described regulatory support as "very supportive", with 50% choosing "somewhat supportive" ($\chi^2 = 65.7, p < 0.001$). These findings reinforce Objective 2, demonstrating the need for more agile, transparent regulatory mechanisms.

Table 1. Summary of key chi-square findings.

| Variable | Key Finding | % Most Frequent | χ^2 (df) | p-value | Related Objective |
|-------------------------------------|--|-----------------|---------------|---------|-------------------|
| Regulatory Support | Most found support only "somewhat supportive" | 50.0% | 65.7 (5) | 0.000 | Objective 2 |
| Customer Awareness & Adoption | Awareness varied; 50% rated high, 38.5% moderate | 50.0% | 40.0 (4) | 0.000 | Objective 3 |
| Collaboration with FIs | Majority chose "somewhat collaborative" | 42.3% | 38.0 (5) | 0.000 | Objective 2 |
| Support/Resources Availability | Majority found supportive | 59.6% | 44.9 (-) | 0.000 | Objective 3 |
| Cybersecurity/Data Privacy Priority | Priority was generally "very high" | 59.6% | 22.7 (-) | 0.000 | Objective 3 |

4.2. Digital Infrastructure and Technology Adoption

Quantitative findings suggest that the technical foundations for FinTech in Qatar are strong: over 80% of participants viewed mobile connectivity, cybersecurity in-

frastructure, and digital payment systems as sufficient. This confirms Li, Sun, and Wang's (2023) view of Qatar as a digitally advanced economy.

Yet, perceived customer readiness remains moderate. Only 55% of respondents agreed that users are prepared to adopt advanced digital services, such as robo-advisors or blockchain-based platforms. This gap between infrastructure and user behaviour reflects the behavioural friction discussed by Li, Sun, and Wang (2023), where digital maturity does not guarantee user engagement.

Chi-square analysis confirms this discrepancy: while 50% of stakeholders rated customer awareness and adoption as "high" or "very high", 38.5% selected "moderate" and 11.5% "low or very low" ($\chi^2 = 40.0, p < 0.001$). These results support Objective 3 and confirm that digital adoption in Qatar is constrained more by user perception and cultural readiness than by technical availability (see Table 1).

4.3. Public Awareness and Financial Literacy

Public engagement remains a critical challenge. Only 38% of survey respondents believed the general public is aware of available FinTech services, and just 41% rated financial literacy initiatives as effective. These findings align with (Gomber, Kauffman, Parker, & Weber, 2018) and (Li, Sun, & Wang, 2023), who highlight financial education as a barrier in non-Western FinTech contexts.

One-sample t-tests provide further detail: as seen in Table 2, only 13% of customers viewed FinTech products as easy to understand, and 6% reported difficulty understanding associated risks, reflecting significant knowledge gaps. With 90% of customers expressing security and privacy concerns, and 88% citing lack of regulatory oversight, trust emerges as a serious adoption barrier.

These insights directly address Objective 3 and underscore the need for more inclusive, culturally grounded public engagement strategies that combine education, communication, and trust-building.

Table 2. Summary of one-sample t-tests.

| Group | Item | M | SD | t | p | % Agreement |
|-----------|------------------------------------|------|------|-------|-------|-------------|
| Startups | Regulatory compliance | 0.54 | 0.50 | 6.61 | 0.000 | 53.0% |
| Startups | Access to funding and capital | 0.50 | 0.50 | 7.14 | 0.000 | 50.0% |
| Customers | Security and privacy concerns | 0.90 | 0.30 | 12.91 | 0.000 | 90.0% |
| Customers | Lack of regulatory oversight | 0.88 | 0.32 | 11.24 | 0.000 | 88.0% |
| Customers | Complex/confusing FinTech products | 0.13 | 0.34 | 17.90 | 0.000 | 13.0% |

4.4. Socio-Cultural and Demographic Influences

Stakeholder responses showed clear variations across age and professional background. Younger respondents (under 35) were more open to adopting FinTech, while older users expressed concerns about data privacy and automation. Similarly, those in financial professions reported higher confidence in FinTech compared to other sectors. These patterns mirror the findings of Sam-Abugu et al. (2025) and

Alaassar, Mention, and Aas (2021), who stress the influence of social familiarity and cultural norms on digital technology uptake.

These results suggest the need for segmented policy design and targeted FinTech offerings tailored to demographic variations, a necessary component of achieving financial inclusion and sustainable adoption.

4.5. Regulatory Enablement and Innovation Constraints

While 68% of respondents agreed that FinTech regulations protect consumers, only 49% believed they also foster innovation. This reflects the tension between risk-averse policy frameworks and the demands of fast-moving digital sectors, as discussed by Zetzsche et al. (2020) and Lee and Shin (2018).

This theme was further reflected in both the t-test and chi-square findings. As seen in Table 2, only 32.7% of startups identified scaling the business or expanding partnerships as opportunities. Meanwhile, 53% cited regulatory compliance as a key challenge, alongside access to funding (50%) and market adoption difficulties (32.7%). These patterns support Objective 2 and confirm that while regulation is trusted in principle, its practical application often inhibits agility and experimentation.

4.6. Summary of Quantitative Patterns

To synthesise the findings across tests and themes, Table 3 provides a consolidated overview of stakeholder perceptions regarding key enablers and barriers. This table draws from both the one-sample t-tests and chi-square analyses.

Table 3. Integrated summary of key findings.

| Stakeholder Group | Theme | Item/Concern | % Reporting | Contribution to Objectives |
|-------------------|-------------|--|-------------|----------------------------|
| Startups | Challenge | Regulatory compliance | 53.0% | Objective 2 |
| Startups | Opportunity | Innovating with new technologies | 63.5% | Objective 1 |
| Startups | Challenge | Access to capital and market adoption | 50.0%/32.7% | Objective 2 |
| Customers | Challenge | Security/privacy concerns and regulatory oversight | 90%/88% | Objective 3 |
| Customers | Challenge | Product complexity/lack of human interaction | 13%/47% | Objective 3 |

5. Qualitative Findings and Discussion

The qualitative strand of this study provides rich, nuanced insights into stakeholder perceptions surrounding the development and strategic positioning of Qatar's FinTech ecosystem. Open-ended survey responses from a cross-section of FinTech founders, policymakers, and institutional actors enabled a contextualised interpretation of the challenges and enablers shaping FinTech development. This section presents and discusses the main themes that emerged, directly addressing the research

objectives and contributing to the literature on digital transformation, innovation governance, and platform internationalisation in developing economies.

5.1. Theme 1: Regulatory Responsiveness and Startup Enablement

A dominant concern raised by participants was the procedural friction experienced by FinTech startups in navigating Qatar's regulatory landscape. Many highlighted the extended time and cost associated with licensing and compliance, echoing prior research (Alaassar, Mention, & Aas, 2021; Zalan, 2020) that identifies inflexible regulation as a key inhibitor of FinTech agility in emerging markets. However, the critique was not directed at the existence of regulation per se, but at the lack of speed, clarity, and communication within the current systems. As one participant remarked: "They burn a lot of money waiting for approvals".

This resonates with De Filippi and Loveluck (2016), who argue for more adaptive governance frameworks in fast-evolving digital sectors. Stakeholders advocated for institutional shifts that prioritise speed, transparency, and engagement, such as advisory services, fast-track approvals for low-risk innovations, and sandbox-like environments. These findings reinforce Objective 2, which sought to identify institutional barriers and enablers for FinTech development in Qatar.

Importantly, participants linked regulatory efficiency directly to startup survival, particularly in early stages where delays can threaten business continuity. This suggests that improving regulatory responsiveness is not simply about reducing red tape but is central to fostering a vibrant, innovation-ready ecosystem (Wadhvani, 2025).

However, the intensity of procedural friction was not uniform across all FinTech sub-sectors. Respondents most frequently identified payment service providers and digital lending platforms as facing the greatest regulatory hurdles, largely due to strict compliance and licensing requirements tied to anti-money laundering and consumer protection regulations. By contrast, areas such as InsurTech and personal finance applications reported relatively smoother approval pathways, benefiting from clearer regulatory categories and lower perceived risk. This variation suggests that Qatar's regulatory framework, while comprehensive, remains more restrictive toward sub-sectors handling monetary transactions or credit intermediation. Recognising these differences is important for tailoring future reforms and ensuring that regulatory agility extends across the full spectrum of FinTech activity.

5.2. Theme 2: Ecosystem Support and Strategic Collaboration

In addition to procedural issues, participants highlighted the absence of a cohesive, well-resourced support system for FinTech ventures. Beyond funding, interviewees stressed the need for structured mentorship, access to skilled labour, and targeted support from institutions such as QDB and QFC. This aligns with (Bodó,

Gervais, & Quintais, 2021), who underscore the importance of ecosystem-wide collaboration in fostering digital innovation.

Several interviewees called for the creation of FinTech-specific incubators, startup hubs, and industry-specific accelerators to support scaling. Such infrastructure was viewed not only as a source of technical support but as a way to build trust, facilitate knowledge-sharing, and catalyse peer learning. These insights support Objective 3 by identifying critical institutional and network-based enablers of innovation.

The call for inter-agency coordination also emerged repeatedly, with some participants citing fragmented communication and inconsistent policy messaging as barriers to effective scaling. This echoes concerns raised in the literature about the “silo effect” in digital governance, which can stifle cross-sectoral progress (Alaasar, Mention, & Aas, 2023).

A related consideration concerns the development of Islamic FinTech, which respondents noted faces the same structural challenges as the broader FinTech ecosystem but with added layers of regulatory and interpretive complexity. Responses indicated that Shariah-compliant digital finance initiatives often encounter slower licensing processes and limited access to venture funding due to uncertainties around compliance frameworks and market demand. These constraints mirror the trust and coordination deficits identified across the sector, yet they are amplified by the need for consistent religious oversight and specialised expertise. As highlighted in the literature (Alam & Nazim, 2021; AlNasr, 2022), such barriers restrict the scaling of Islamic FinTech solutions that could otherwise play a pivotal role in advancing inclusive and ethical financial innovation in Qatar.

5.3. Theme 3: Innovation, Risk Culture, and Digital Transformation

Participants consistently emphasised the need for a cultural shift towards innovation and risk-tolerance, especially within regulatory and financial institutions. This cultural dimension, though less often captured in quantitative indicators, was seen as crucial to enabling experimentation and iterative learning. One participant noted: “Courage and tolerance for mistakes” is needed to support innovation.

This aligns with Li, Sun, and Wang (2023), who highlight the role of regulatory culture in shaping innovation pathways in FinTech. In the Qatari context, risk aversion was seen as embedded not only in regulatory practices but also in investment behaviour and institutional mindsets, potentially limiting transformative progress (Li, Sun, & Wang, 2023).

Furthermore, digitalisation was framed not merely as a technical process but as an expression of system-wide transformation in line with national ambitions, particularly Vision 2030. Respondents positioned FinTech as a vehicle for broader economic modernisation, financial inclusion, and diversification, closely linked to Objective 1 and the paper’s core research aim.

5.4. Theme 4: Global Benchmarking and Technological Adaptation

A final key theme was the need to embed international best practices and learn from global FinTech hubs such as Singapore, UAE, and the UK. Stakeholders advocated for structured benchmarking, global partnerships, and institutionalised knowledge exchange mechanisms. These findings speak directly to the research gap identified in the literature: that while developing economies seek to grow their FinTech sectors, few adopt coherent strategies to adapt global models contextually (Zalan, 2020; Alaassar, Mention, & Aas, 2023).

Notably, the theme of “embracing technology” emerged strongly. Participants urged Qatari institutions to adopt tested innovations, such as blockchain, AI, and open banking systems, rather than reinventing solutions locally. This supports arguments by Zhao and Qiu (2025) and Bodó et al. (2021) that decentralised technologies require adaptive governance strategies to scale effectively across jurisdictions.

Overall, this theme reinforces Objective 4 by identifying how Qatar can strategically adapt and align with global FinTech ecosystems while maintaining local relevance.

Table 4. Summary of qualitative themes.

| Theme | Key Insight | Representative Quote |
|-------------------------------------|---|--|
| Regulatory Responsiveness | Approval processes must be faster, clearer, and more startup-friendly | “They burn a lot of money waiting for approvals.” |
| Ecosystem Support and Collaboration | Structured mentorship, hubs, and funding are critical for startup scaling | “FinTechs need structured support from national institutions.” |
| Innovation and Risk Culture | A culture of experimentation and tolerance is key for digital innovation | “Courage and tolerance for mistakes.” |
| Global Benchmarking and Adaptation | Qatar must embed tested global practices and technologies | “Follow the world.” |

As shown in **Table 4**, the qualitative data uncovers stakeholder expectations for a more agile, connected, and outward-looking FinTech strategy in Qatar. Each theme addresses the core research objectives and provides context-specific insights that fill the identified literature gap concerning FinTech governance and platform scaling in developing economies. When read alongside the quantitative findings, these insights reinforce the need for a holistic and culturally attuned approach to FinTech development.

6. Implications

The findings of this study have several important implications for policymakers, institutional leaders, and ecosystem actors seeking to strengthen Qatar’s FinTech sector. First, the data clearly emphasise the urgent need to reform regulatory pro-

cesses to support innovation. Delays, procedural ambiguity, and rigid licensing frameworks were identified as critical challenges. Therefore, regulators such as QCB and QFC should adopt more adaptive, transparent approaches, such as regulatory sandboxes, pre-submission advisory services, and fast-track approval pathways. These reforms are essential to reduce friction, lower early-stage failure risk, and build investor trust.

A second implication lies in the importance of ecosystem-wide collaboration. The analysis highlights that FinTech success cannot be driven by any single institution in isolation. Instead, a coordinated approach involving government, financial institutions, incubators, and global accelerators is necessary to establish a truly enabling environment. Public institutions must act not only as regulators but also as strategic enablers, co-designing opportunities with startups and ensuring alignment with broader economic goals such as those outlined in Vision 2030.

Another area of concern is the inclusivity of digitalisation. As digital financial services expand, their design must reflect accessibility and usability for diverse population segments, including those with limited digital experience. The findings suggest that policymakers should support financial literacy campaigns and user education initiatives to ensure that FinTech innovation benefits a wide range of users and does not inadvertently exclude vulnerable groups.

The study also draws attention to the value of strategically adapting international best practices. Participants expressed a strong desire for structured benchmarking and policy learning from global FinTech leaders such as Singapore, the UAE, and the UK. Embedding such learning into Qatar's innovation governance, through institutional partnerships, knowledge-sharing platforms, and regulatory exchange, could help the country scale its FinTech sector more effectively while avoiding unnecessary trial-and-error.

Finally, the importance of talent development and startup support emerged strongly. The ecosystem's growth depends not only on funding but also on access to mentorship, sector-specific infrastructure, and human capital. Interviewees called for more FinTech-focused accelerators, upskilling programmes, and academic-industry partnerships to develop the capabilities needed for sustainable digital transformation.

7. Contributions

This study offers several important contributions to both academic literature and practice by exploring how Qatar can build a globally competitive and socially responsive FinTech ecosystem, using a mixed-methods approach grounded in stakeholder experiences and cross-national insights.

Theoretically, the research contributes to the growing body of literature on digital innovation governance in emerging markets. By drawing on empirical data from both entrepreneurs and institutional actors, the study sheds light on how regulatory responsiveness, ecosystem support, and cultural attitudes toward risk influence the evolution of FinTech ecosystems in non-Western contexts. While

much of the existing literature has focused on global FinTech hubs in advanced economies, this study addresses a critical gap by providing a context-specific analysis of how developing economies can navigate the complexities of innovation governance and internationalisation.

The findings also extend theoretical debates around platform scaling and institutional adaptation. In particular, the study reinforces calls for hybrid governance models that balance global benchmarking with local responsiveness, offering a grounded view of how decentralised technologies such as blockchain and open banking are understood and negotiated within Qatar's institutional landscape.

Methodologically, this research demonstrates the value of a mixed methods design in capturing both structural trends and lived realities. The quantitative analysis highlighted statistically significant relationships between stakeholder trust, digital readiness, and perceptions of FinTech value, while the qualitative findings offered nuanced insights into regulatory, institutional, and cultural dynamics. Together, these strands enrich our understanding of how FinTech ecosystems emerge and evolve in hybrid political and economic settings.

Practically, the study contributes actionable insights for policymakers and institutional leaders. By identifying barriers such as procedural delays, fragmented support systems, and limited risk tolerance, the research provides a roadmap for designing interventions that are locally relevant yet globally informed. The recommendations developed from this evidence base support Qatar's strategic ambitions under Vision 2030, particularly in relation to economic diversification, digital transformation, and financial inclusion.

In sum, this study offers a multidimensional contribution: it advances conceptual frameworks, fills an empirical gap on FinTech development in the Gulf, and provides grounded policy guidance that can support the maturation of innovation ecosystems in similar developing contexts.

8. Conclusion

This study sets out to explore how Qatar can develop a globally competitive and socially responsive FinTech ecosystem by investigating the regulatory, institutional, and cultural conditions shaping its evolution. Drawing on both quantitative and qualitative data, the research has provided a comprehensive understanding of the enablers and barriers influencing FinTech development within the specific context of a Gulf emerging economy.

The quantitative strand offered statistical evidence of the significant relationships between trust, digital readiness, and stakeholder perceptions of FinTech value. These findings confirmed that fostering confidence in digital financial systems is essential for driving adoption and engagement. The qualitative strand, meanwhile, uncovered a deeper layer of meaning behind these trends, revealing how regulatory frictions, institutional silos, limited risk culture, and the absence of structured ecosystem support constrain FinTech innovation in practice.

By integrating these strands, the study demonstrates that building a successful

FinTech ecosystem in Qatar requires more than technical infrastructure or funding. It demands institutional agility, regulatory foresight, collaborative networks, and a culture that supports experimentation and adaptive learning. Moreover, the findings highlight the importance of aligning with global best practices while preserving local responsiveness, offering strategic guidance for policymakers working to implement Vision 2030.

Ultimately, this research contributes to a broader understanding of how emerging economies can harness digital financial innovation to advance inclusive, sustainable, and internationally competitive growth. As FinTech continues to reshape global finance, the Qatari experience offers valuable lessons on the complexities of modernisation, governance, and strategic adaptation in transitional economies.

While this study provides a comprehensive understanding of Qatar's FinTech ecosystem, several limitations should be acknowledged. First, the research focused on three main stakeholder groups, customers, company representatives, and policymakers, and therefore does not capture the detailed experiences of underserved or non-English-speaking users. Future research should address this gap through targeted studies that explore how language accessibility, cultural norms, and digital literacy shape user engagement and inclusion. Second, the cross-sectional design provides only a snapshot of FinTech adoption in 2024, limiting the ability to capture how perceptions and behaviours evolve over time. Longitudinal or comparative studies across GCC economies could reveal how regulatory reforms and trust dynamics develop in the longer term. Third, while the study integrates both quantitative and qualitative strands, it relies on self-reported data, which may be influenced by perception bias. Future studies could combine survey and behavioural data to enhance validity and depth. Despite these limitations, the findings offer a strong foundation for advancing the study of FinTech adoption, inclusion, and innovation in state-led digital economies.

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