

Trust in digital banking: a thematic review of drivers, barriers and emerging evidence in developing countries

Leandro Jorge Yacoubian *

Independent Researcher, Cordoba, Argentina.

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Abstract

This article presents a thematic review of the growing body of literature on trust in digital banking within the context of developing countries. Trust is widely recognized as a critical enabler of digital financial inclusion, influencing users' willingness to adopt and continue using mobile banking, fintech platforms, and online financial services. Drawing from interdisciplinary sources, this review identifies the core drivers of trust-including institutional quality, technological security, and user experience-as well as key barriers such as digital illiteracy, fraud concerns, and weak regulatory enforcement. The review also highlights emerging patterns across regions and proposes a research agenda to address gaps in understanding how trust dynamics vary culturally, institutionally, and technologically. This synthesis aims to inform both scholars and policymakers seeking to design effective strategies for inclusive digital finance.

Keywords: Digital Banking; Trust; Financial Inclusion; Fintech; Developing Countries; User Behavior; Digital Transformation

1. Introduction

Across the developing world, digital banking has rapidly transformed how individuals interact with financial services. The rise of mobile money, fintech startups, and online banking platforms has expanded access for millions who were previously excluded from the formal financial system. Yet, despite this promising shift, one element consistently determines whether digital banking initiatives succeed or stall: trust.

Trust remains a foundational component of financial relationships, and its importance is magnified in digital environments where face-to-face interactions are minimal or nonexistent (Lankton, McKnight, & Tripp, 2015). In many developing economies, users are expected to place their confidence in systems they cannot see, institutions they may not fully understand, and technologies that are often new and unfamiliar. This creates a complex environment in which trust must be actively built rather than assumed.

At the same time, trust in digital banking is not a static concept. It evolves with user experience, institutional transparency, media narratives, and the broader social climate. It can be earned, lost, and regained, sometimes quickly, sometimes over years. Understanding this dynamic nature is especially critical in markets undergoing rapid digital transition where user expectations are shifting and the regulatory landscape is still catching up.

In recent years, scholars from a range of disciplines, including information systems, behavioral finance, development economics, and digital sociology, have begun to explore the multiple dimensions of trust in digital banking. While these studies have produced valuable insights, the literature is fragmented, with varying definitions, frameworks, and

* Corresponding author: Leandro Jorge Yacoubian.

regional perspectives. What's missing is a cohesive synthesis that brings these contributions together and distills their relevance for both academic inquiry and practical implementation.

This review seeks to fill that gap. Rather than proposing a single model or rigid taxonomy, it organizes the current knowledge into key thematic areas: the conditions under which trust in digital banking is fostered, the factors that inhibit it, and the contextual dynamics that shape trust-related outcomes. By weaving together findings from across regions and research traditions, this article offers a comprehensive view of how trust operates—and sometimes fails to operate, within the rapidly evolving landscape of digital finance in developing countries.

The sections that follow examine core drivers of trust, common barriers to its development, and emerging patterns of user behavior. The goal is to support scholars, practitioners, and policymakers who are designing or studying digital financial services by offering a structured, nuanced understanding of the trust landscape in which these services operate.

2. Literature Review

The role of trust in digital banking has attracted increasing scholarly attention in the last decade. As digital financial services spread globally, especially in developing regions, researchers have sought to understand the psychological, social, technological, and institutional dimensions that influence user confidence and participation in these platforms. While early studies in this field were largely grounded in the Technology Acceptance Model (TAM), more recent work has expanded the conceptual toolkit to include trust theory, risk perception, service quality, and even behavioral economics.

Trust has been shown to influence both the initial adoption and continued use of digital banking technologies. According to Gefen et al. (2003), trust reduces the perceived uncertainty in online transactions, thereby increasing user engagement. McKnight et al. (2002) further emphasized that trust encompasses beliefs about competence, benevolence, and integrity, all of which are critical in technology-mediated exchanges. These insights have been widely adapted to the context of digital banking, where the absence of physical interaction makes trust even more central.

In the context of developing countries, trust takes on unique characteristics due to the presence of additional barriers such as weak regulatory frameworks, digital illiteracy, and prior experiences of fraud or financial exclusion. Studies in Sub-Saharan Africa, South Asia, and Latin America have highlighted the influence of informal social networks and community trust in shaping digital banking adoption (Donovan, 2012) (Jack & Suri, 2014; Mothobi & Grzybowski, 2019). Moreover, researchers such as Lin (2011) and Yoon et al. (2017) have noted that trust is not only shaped by the technology itself but also by broader perceptions of institutional effectiveness and fairness.

Beyond the user side, service providers also play a significant role in building or undermining trust. Factors such as the transparency of pricing, the clarity of terms and conditions, the responsiveness of customer support, and the handling of personal data all contribute to user trust. In environments where government oversight is limited, the burden of trust-building often falls directly on fintech companies and financial institutions, which must work harder to signal reliability and legitimacy.

Cross-country comparisons have begun to reveal important patterns and divergences. For instance, while users in some regions cite security and privacy as their primary concerns, others are more influenced by the perceived reputation of the institution or by peer recommendations. These differences suggest that trust is culturally and contextually embedded, and that one-size-fits-all strategies may not be effective.

A growing area of literature also explores the intersection between trust and digital literacy. Users who are digitally literate are more likely to understand the functionality and security features of digital banking platforms, which in turn strengthens trust. Conversely, those with limited digital literacy may perceive higher risk, contributing to mistrust even when systems are technically sound. In this regard, educational interventions have emerged as a strategic tool to reduce fear and improve adoption, particularly when supported by community-based training or peer-to-peer guidance (Klapper, Lusardi, & Panos, 2013).

Another relevant strand of research focuses on trust recovery. In cases where breaches of trust occur—such as data leaks, fraudulent activity, or service outages—users may either abandon the platform or develop more cautious usage patterns. Studies suggest that trust can be repaired through responsive communication, restitution, and systemic improvements (Wang, Ye, Jiang, & Liu, 2019), but the process is context-sensitive and often influenced by cultural norms around accountability and forgiveness.

Moreover, comparative studies have shown that the trust gap between traditional and digital banking channels is often more pronounced in countries where banking itself has historically been exclusionary or unreliable. In such contexts, building trust in digital alternatives requires not just robust technology, but also clear value propositions and visible local engagement. Some successful initiatives have leveraged mobile network operators or community agents as intermediaries to establish familiarity and reduce perceived distance between the user and the financial institution.

In sum, the literature confirms that trust is both a prerequisite and an outcome of digital banking engagement. However, the diversity of approaches, definitions, and methodologies used in existing studies has made it difficult to form a coherent picture. This review contributes to the field by organizing the literature into coherent themes, identifying commonalities and gaps, and setting the stage for a more integrated understanding of trust in digital banking across developing countries.

3. Thematic Synthesis: Key Dimensions of Trust

To better understand how trust functions in the adoption and use of digital banking in developing countries, this section synthesizes the reviewed literature into three interrelated thematic dimensions: (1) trust formation and early-stage adoption, (2) trust reinforcement and platform engagement, and (3) trust erosion and recovery mechanisms.

3.1. Trust Formation and Early-Stage Adoption

The initial decision to engage with a digital banking platform often hinges on perceived trustworthiness. Studies consistently show that first impressions are shaped by how users encounter and evaluate platforms for the first time - through word-of-mouth, marketing, institutional reputation, or past experiences with banks or government services. For example, in environments where banks have historically excluded or mistreated marginalized populations, skepticism toward digital alternatives may be stronger. Trust formation at this stage is highly sensitive to both cognitive factors (e.g., perceived competence, usefulness) and emotional cues (e.g., fear of scams, social validation) (Kim, Ferrin, & Rao, 2008).

Institutional reputation also plays a pivotal role. Users are more likely to trust platforms that are associated with reputable financial institutions or endorsed by credible government bodies. In some cases, partnerships between fintech firms and established banks have been instrumental in overcoming early distrust. These collaborations can signal regulatory compliance and operational stability, helping bridge the trust gap during the early stages of adoption.

3.2. Trust Reinforcement and Continued Use

Once users begin interacting with a digital banking system, their trust must be maintained and reinforced. This dynamic phase involves assessing the system's responsiveness, reliability, and transparency over time. Features such as real-time transaction alerts, consistent uptime, clear terms and conditions, and accessible customer support all contribute to users feeling secure and respected. Studies also indicate that consistent interaction with the same platform or provider can deepen trust, especially if the system performs well under pressure (e.g., during high transaction volume or when errors are quickly resolved).

Moreover, personalization and user-centric design can enhance trust reinforcement. When platforms adapt to user needs, offer intuitive navigation, and provide tailored services, users perceive a higher level of professionalism and care. Mobile banking apps that allow users to track expenses, set alerts, and control access permissions can further empower users, reducing reliance on in-person interactions and reinforcing confidence in digital systems.

3.3. Trust Erosion and Recovery Mechanisms

While building trust is difficult, losing it can happen quickly. Breaches of trust - whether due to system failures, perceived opacity, unauthorized charges, or mishandling of personal data - can significantly harm the reputation of digital banking providers. However, trust is not necessarily irreparable. Literature points to several recovery mechanisms that can rebuild user confidence: timely and transparent communication during service interruptions, compensation or restitution where applicable, and public demonstrations of corrective action. The success of these efforts often depends on cultural context and how institutions are perceived in terms of accountability.

Trust erosion is especially damaging in regions where baseline trust in financial institutions is already low. In such contexts, recovery efforts must be proactive and visible. For example, some digital banking providers have implemented customer education campaigns and transparency dashboards to demonstrate commitment to user protection. In others,

leveraging community leaders or peer ambassadors to relay messages of trust recovery has proven effective, especially where interpersonal relationships still hold significant influence.

These three dimensions - formation, reinforcement, and recovery - are not necessarily linear. In many developing countries, users experience a cyclical pattern where initial trust is tested, sometimes broken, and then gradually rebuilt or permanently lost. By organizing the literature through this lens, we gain a clearer understanding of the fluid and context-sensitive nature of trust in digital financial services.

4. Regional Perspectives and Contextual Variation

The dynamics of trust in digital banking do not manifest uniformly across developing regions. Cultural norms, regulatory environments, historical legacies, and socio-economic structures all contribute to how users perceive and engage with digital financial systems. This section explores how trust-related issues are shaped and challenged within specific regional contexts, highlighting both shared concerns and unique patterns.

4.1. Sub-Saharan Africa

In Sub-Saharan Africa, mobile money services such as M-Pesa have transformed access to financial services. However, trust is still closely linked to informal systems, such as local agents and peer networks. In many cases, users are more likely to trust a mobile agent they know personally than an abstract banking institution. Digital trust-building in this region often depends on leveraging existing community structures, demonstrating system reliability, and ensuring tangible user support. Regulatory inconsistencies and data privacy concerns persist, but users show high adaptability when platforms are culturally embedded and socially endorsed.

Despite progress, disparities persist between urban and rural areas. In cities, higher levels of smartphone ownership and better network coverage facilitate smoother adoption, while rural communities may face obstacles such as limited connectivity or lack of technical assistance. In these settings, physical proximity to mobile agents plays a significant role in shaping perceptions of trustworthiness. Studies also highlight the role of linguistic accessibility and localized content in promoting engagement, particularly among older and less literate users.

Furthermore, trust is also shaped by national experiences with corruption, inflation, and political instability. Where formal institutions have historically underperformed or failed, users may rely more on informal mechanisms or hybrid solutions that blend traditional and digital practices. This coexistence creates both opportunities and challenges for digital banking providers trying to scale trust in low-trust environments.

Additionally, cross-border remittance flows, often facilitated by digital channels, add another layer to trust dynamics. Many families depend on mobile platforms to receive international payments, and the perceived stability and transparency of such services can significantly affect household-level financial decisions. Partnerships with telecom operators and NGOs have helped extend the reach of trusted platforms to remote areas. These actors often act as mediators in trust-building, especially in regions with limited formal infrastructure.

4.2. South and Southeast Asia

In regions such as India, Bangladesh, and Indonesia, the scale and pace of digital banking expansion have been rapid. Trust here is heavily mediated by institutional affiliation and government policy. Initiatives like India's Unified Payments Interface (UPI) and Aadhaar-enabled systems have helped extend digital services to millions, yet concerns over data security and surveillance have created friction. In Southeast Asia, religious considerations and financial taboos such as those around interest or speculation also shape trust. Users often respond positively to platforms that offer multilingual support, religious-compliant finance, and strong mobile interfaces.

Another recurring theme in this region is the dependence on family influence in decision-making, particularly among women and elderly users. For these groups, interpersonal trust and social endorsement are often more impactful than institutional branding or technical functionality. In some cases, financial literacy campaigns led by NGOs or local governments have helped mitigate resistance and promote trust through community-level engagement.

In addition, platform interoperability and consistency across financial services influence user confidence. The presence of central bank-backed platforms or cross-provider standards can lend credibility and encourage continued use. However, overly rapid digitization in areas with limited enforcement capacity may inadvertently lead to overexposure, mistrust, or digital fatigue among low-income users.

Moreover, regional digital ecosystems are often fragmented. Users may juggle multiple apps and platforms to conduct basic financial tasks, which can introduce confusion and erode trust if experiences are inconsistent. Interoperability issues and limited consumer protections in case of dispute or fraud remain major concerns. In response, governments in the region have begun issuing stronger regulatory frameworks focused on data governance and fintech supervision, though enforcement capacity varies widely.

4.3. Latin America

Latin American countries present a mixed picture. In urban centers, fintech adoption is growing fast, with trust bolstered by digital literacy and smartphone penetration. However, rural populations often remain skeptical, shaped by decades of institutional instability and economic volatility. Users in countries such as Brazil, Mexico, and Colombia express concerns about system transparency, data misuse, and the responsiveness of customer service. Trust is further shaped by financial education campaigns and collaborations between banks and local businesses that provide familiar access points.

Another factor influencing trust in Latin America is the memory of past financial crises, which have left deep-rooted skepticism toward formal banking. As a result, even well-designed platforms must work harder to gain legitimacy, especially among older users. In recent years, regional regulators have introduced new data protection laws, which, while not yet uniformly enforced, have begun to influence user perceptions about institutional accountability. Digital wallets backed by telecom operators or international tech companies often benefit from higher trust levels than traditional banks, especially among younger, mobile-first users.

In some countries, political polarization and inconsistent policy shifts also impact trust in digital public infrastructure. This means that even when governments promote financial inclusion initiatives, citizens may approach them with suspicion if trust in leadership is low. In such cases, partnerships with private firms or community institutions can help depoliticize financial access and improve uptake.

The role of social media and digital influencers in trust formation is also noteworthy. In countries like Argentina and Peru, fintech companies increasingly rely on online communities and informal testimonials to reach potential users. While this strategy can foster relatability and trust, it also exposes users to risks of misinformation or fraud, particularly in environments lacking media literacy. Establishing clear communication channels and verified endorsements is becoming crucial for digital banks operating in volatile information environments.

Table 1 Comparative summary of trust factors, barriers, and strategies across three developing regions.

Region	Key Trust Factors	Main Barriers	Trust-building Strategies
Sub-Saharan Africa	Mobile agents, peer networks, remittance reliability, NGO partnerships	Weak infrastructure, low regulation, political instability	Localized content, community support, mobile coverage
South & Southeast Asia	Institutional support, multilingual tools, family and religious influence	Privacy concerns, fragmented apps, low enforcement	Education campaigns, cultural adaptation, platform integration
Latin America	Digital literacy, fintech education, telecom-backed wallets	Crisis legacy, political distrust, inconsistent policy	Social media outreach, verified testimonials, public-private collaboration

Note: This table which was developed by the author, summarizes key patterns drawn from the thematic analysis of regional trust dynamics. The categorization is based on qualitative synthesis of academic literature and is intended for comparative interpretation only.

5. Conclusions

5.1. Future Research Directions

This review has highlighted the critical role of trust in shaping the adoption, use, and sustainability of digital banking services across developing countries. While digital technologies have opened up new frontiers for financial inclusion, trust continues to function as both a bridge and a barrier, often determining whether technological access translates into actual engagement.

However, this paper also seeks to make an original contribution by proposing a conceptual shift in how trust is operationalized in future digital banking strategies. Instead of treating trust solely as a static construct or dependent variable, we suggest viewing it as an adaptive capacity: a form of resilience that users develop in response to institutional volatility and technological uncertainty. This reconceptualization opens the door for designing digital systems that do not merely inspire trust initially, but continuously earn it through embedded transparency, user empowerment, and participatory feedback loops.

I also propose the use of a new analytical framework—"Trust Trajectories"—which maps how individual users' trust evolves over time through different digital touchpoints and across varied institutional settings. This dynamic perspective allows policymakers and fintech designers to identify which interventions (e.g., real-time support, community validation, transparency dashboards) have the greatest long-term impact on maintaining user engagement. I believe this approach has the potential to align financial innovation more closely with user realities in emerging economies.

Future research should aim to empirically test these propositions through mixed-method longitudinal studies, combining behavioral data with user interviews across diverse geographies. By shifting the conversation from "how much users trust" to "how trust adapts and survives," the literature can advance toward more actionable, context-sensitive solutions.

Finally, as digital finance continues to intersect with emerging technologies such as artificial intelligence and blockchain, scholars should explore how these innovations might reshape trust relationships. Will automated systems enhance perceptions of neutrality and consistency, or will they introduce new forms of opacity and alienation? Addressing these questions will be essential for ensuring that the next generation of digital banking is not only inclusive in reach but also grounded in trust.

Compliance with ethical standards

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