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The nexus of inclusive finance, institutional governance, and FinTech adoption in the banking industry: A systematic review of project implementation dynamics

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A B S T R A C T

This systematic review synthesizes 40 peer-reviewed studies to examine the role of inclusive finance and institutional governance in FinTech adoption in Pakistan's banking sector. While user-centric behavioural models are the dominant narrative in global discourse, this review highlights the underappreciated role of institutional trust, regulatory design, and structural inclusion in the scalability of FinTech ecosystems. The paper identifies four thematic clusters using PRISMA and TCCM frameworks, namely, user-level drivers, governance enablers, financial inclusion mechanisms, and integrated adoption frameworks. Findings suggest that inclusion should be reimagined not just as an objective but also as a prerequisite to digital finance, and quality of governance directly moderates trust and adoption behaviour. The study presents an original conceptual framework that links ecosystem-level conditions and adoption dynamics, highlighting the need for multi-level theoretical approaches that incorporate behavioural, institutional, and infrastructural dimensions. Implications are drawn for policymakers, FinTech innovators, and financial regulators who are looking for inclusive, trusted, and sustainable digital finance solutions in emerging markets.

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1. Introduction

FinTech is transforming how the world's financial services are designed, delivered, and accessed by users, especially concerning financial inclusion, both in developed and emerging markets. The large unbanked population across South Asia, especially in Pakistan, rapid mobile adoption, and changing regulatory policies all highlight the importance of FinTech to increase financial access (Howlader & Mondal, 2026). According to the World Bank (2023), 63% of Pakistanis remain unbanked, with the highest rates of exclusion among women, rural communities, and small businesses. FinTech addresses this gap significantly by promoting financial equity and economic participation of underserved groups (Shah, 2026). FinTech research is expanding, but few analyses consider the joint effect of institutional governance and financial inclusion on adoption (Hossain et al., 2026). A large part of the existing literature deals with financial inclusion and FinTech proliferation separately, ignoring underlying constraints such as the absence of digital identity, legal recognition, or availability of smartphones, which are important in Pakistan (Sultana & Akter, 2026). Institutional governance, such as regulatory frameworks, legal systems, and stakeholder coordination, creates the trust and market stability that FinTech needs to scale (Almaqtari, et al., 2025). Most literature, however, describes governance only, without theorizing or empirically testing its effect on adoption.

FinTech behaviours, trust, and platform usage in Pakistan are being explored in more studies. However, these studies have not been reviewed as a whole and from different angles. The absence of grand theories impedes scientific progress and results in a fragmented public policy and market knowledge. Most reviews also tend to focus on issues of global concern, rather than on the specific context of South Asia (Stephen et al., 2024; Khan et al., 2023). A review of Pakistan should

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incorporate the current research, create novel ideas, and highlight the gaps for scholars and policymakers (Uzair-ul-Hassan, 2025; Butt & Hussain, 2026). This study addresses the research gaps by conducting a comprehensive literature review of 40 peer-reviewed articles on FinTech uptake in the banking sector of Pakistan. The review has been structured based on the PRISMA framework and the TCCM (Theory–Context–Characteristics–Methodology) approach for a clear structure and solid methods. Four major themes were identified: user and behaviour drivers; financial inclusion approaches; governance frameworks; and integrated ecosystem models. They are shown in three tables, with heat maps and diagrams for clarity.

The study is framed around three main research questions:

(1) What are the key factors driving and hindering FinTech adoption in the banking sector of Pakistan?

(2) What is the influence of financial inclusion and institutional governance on adoption outcomes?

(3) What are the theoretical and methodological patterns in the literature and critical gaps?

This research makes four main contributions that fill notable gaps. First, it is the first systematic SLR on FinTech adoption in the context of Pakistan, filling an important gap both geographically and conceptually. Second, it puts financial inclusion and institutional governance at the center of digital transformation. Third, it proposes a conceptual model linking behavioural, institutional, and infrastructural factors in FinTech adoption. Fourth, it offers policy recommendations to promote inclusive and trustworthy FinTech ecosystems in developing markets. The paper captures the dynamic interplay between user agency, regulation, and infrastructure in shaping FinTech adoption through the integration of Adaptive Structuration Theory and Sociotechnical Systems Theory (Al-Sharafi et., 2025).

2. Literature Review

2.1 Conceptual Foundations

FinTech is all about technological innovations that improve user experience, access, and efficiency for financial service providers. FinTech includes tools such as mobile payments, digital banking, block chain, AI, and decentralized finance (Mills et al., 2016; Kou & Lu, 2025). FinTech brings new populations into financial services, creating new ways to manage money, loans, and investments. FinTech's potential to broaden financial access is particularly strong in developing economies. FinTech solutions in Pakistan and similar countries can improve access by utilizing traditional financial infrastructure (Ejaz & Hasan, 2023a). Financial inclusion refers to the process by which individuals and firms can access useful and affordable financial products offered responsibly (Noreen et al., 2022; Aracil et al., 2022; Balliester Reis, 2026). FinTech adoption is a development goal and a structure for inclusion. FinTech is seen by many researchers as the key to inclusive finance. Adjei et al. (2023) show that it revolutionises financial access for excluded groups. Digital inclusion policies help to overcome distance, transaction costs, and ID barriers. Effective use of FinTech requires digital literacy, affordable infrastructure, and clear regulations (Raza et al., 2023)

Another significant perspective in FinTech adoption research is institutional governance. Governance refers to the rules, policies, and coordination mechanisms that govern financial systems. FinTech governance in Pakistan is structured around four main groups: the State Bank of Pakistan (SBP), Securities and Exchange Commission of Pakistan (SECP), Pakistan Telecommunication Authority (PTA), and private entities, including startups and banks. Mushtaq et al. (2024) note that the institutional arrangements in crowdfunding, digital lending, and open banking are fragmented, which increases the regulatory complexity. Data protection laws' shortage and restricted cybersecurity frameworks, together with various dispute resolution channels, create distrust among users, which experts identify as key for fintech adoption (Nizam & Rashidi, 2024; Osimen, Wonosikou & Odeigah, 2026). The formation of trust infrastructure, together with regulatory compliance, creates the essential base for reaching large-scale adoption of new systems. (Ferilli et al., 2024) demonstrate that countries which establish clear fintech policy structures together with organized inter-agency connections achieve better digital penetration levels coupled with innovation and sustainability than nations having governance fragmentation.

Research models have proved essential in user adoption studies for many decades. The two leading frameworks used for adoption analysis are TAM and UTAUT, which demonstrate perceived usefulness and perceived ease of use, and social influence and facilitating conditions as adoption predictors (Fatima et al., 2021; Qatanani et., 2026). These theoretical models deliver reliable results in advanced technological contexts, yet appear less effective in helping to understand Pakistani market conditions due to the country's strong access inequalities alongside weak preparedness of infrastructure and subpar institutional operations. Several experts have introduced multi-theory models to overcome these problems. Arsalan et al. (2022), Suggest implementing behavioural approaches alongside institutional methods and policy structures to explain fintech systems in developing countries accurately. The research takes the existing logic into account by developing a multidimensional analysis of user-driven factors along with institutional and policy-related variables regarding fintech adoption in Pakistan.

2.2 Prior Empirical studies & evidence from Pakistan

Research about fintech adoption performed by Pakistani scholars throughout the last five years utilised behavioural intentions and demographic predictors, and digital service uptake obstacles as main research points. The investigation conducted by Nizam & Rashidi (2024) within the context of UTAUT demonstrates that user intention depends on perceived ease of use and mobile app integration as well as trust. Research limitations arise from preserving populations that face digital exclusion because the study only examines young persons in urban areas who use smartphones. Fintech solutions represented by branchless banking and microloan apps are allegedly becoming more popular in peri-urban and rural areas (Ali & Abdullah, 2020). The research shows that problems in digital network unreliability and low literacy, combined with financial services that do not address gender requirements, create barriers for adoption. The acceptance of fintech solutions by women and marginalized communities will increase if services contain specific features that align with their needs, such as biometric ID customization and localized language platforms (Bello, 2022).

Empirical research about institutional aspects now receives elevated interest across the field. (Mushtaq et al., 2024) investigated crowdfunding platforms in Pakistan to find that unclear regulations and slow institutions block fresh concepts from developing. Research shows that institutional governance operates as an active system that determines the total ecosystem viability. Fintech ecosystems suffer from elevated operational risks (Ferilli et al., 2024) since they lack governance systems for system interoperability alongside client protection and innovative freedom and flexibility. The current scholarly research uses various dimensional connections to analyse this subject. South Asian research on fintech prevention displays limited coverage of technology integrations with both inclusion practices and governance structures (Affandi & Malik, 2021). National evaluations need to unite regulatory alterations with economic perspectives of the society (Noreen et al., 2022). The research combines independent study fragments through a customized synthesis, which strengthens evidence stability within Pakistani parameters.

Nevertheless, despite these contributions, the literature has several gaps. Studies on user behaviour analysis have not progressed much in understanding the relationship between regulatory actions due to the lack of extensive inter-sectoral analysis. The research study did not take into account the perspectives of the key stakeholders, such as non-bank fintech service providers, civil society organizations, and informal workers (Tsouris, Thanasas & Rigou, 2026). The literature on the influence of financial inclusion on adoption outcomes and its function as a regulatory agent in rural Pakistani communities is limited. Fourth, theoretical research is concerned with individual behaviour but does not include institutional or societal factors. Extensive methodical research of the existing literature is essential to consolidate the findings and identify the theoretical gap to produce a framework to address the complexity of fintech adoption in Pakistan. This section describes the review methodology that is transparent and supports academic integrity by allowing future researchers to reproduce the results.

3. Methodology

This paper uses the systematic literature review (SLR) methodology to provide a holistic academic review of FinTech uptake in Pakistan regarding financial inclusion and institutional governance. Against narrative and integrative reviews, systematic reviews are constructed on transparent and reproducible organizational methodologies that reduce bias and improve analytical accuracy, which is consistent with academic standards (Grønstad, 2026; Verdugo-Paiva et al., 2026). PRISMA, or Preferred Reporting Items for Systematic Reviews and Meta-Analyses, is a systematic way for researchers to find, screen, and combine relevant papers (Khalil et al., 2025). This review employs the Theory-Context-Characteristics-Methodology (TCCM) framework to offer a systematic approach to identifying and acknowledging gaps in current research.

The initial research was carried out on three major academic databases, including Scopus, Web of Science, and Google Scholar (Singh & Piryani, 2026). These databases were selected because they cover a wide range of peer-reviewed journals in the fields of finance, development studies, public policy, and information systems (Culbert et al., 2025). Boolean strings were used in the search to include all relevant information on the subject matter. Two sets of search terms combined “FinTech adoption” and “Pakistan” with “financial inclusion”" and “digital finance”. The other set of search terms focused on the "regulatory frameworks". The search window covered articles from 2010 to 2024 to demonstrate the current relevance and past trends of FinTech evolution in the studied region. A PRISMA flow diagram is presented (see figure below) to reveal the transparent selection process, which preserves reproducibility of results (Barbosa et al., 2026).

The research accepted articles that studied the adoption of FinTech in Pakistan or provided comparative South Asian evidence concerning the research questions. The eligibility criteria of the studies were that the studies focused on dimensions of financial inclusion, institutional governance, or empirical or conceptual research on FinTech development (Shah, 2026; Chinoda & Mingiri Kapingura, 2026). The analysis took into account peer-reviewed English literature, including journal articles, conference proceedings, and book chapters. The review excluded opinion articles and reports lacking proper methodology, and reports focused on traditional banking but independent of the technology integration.

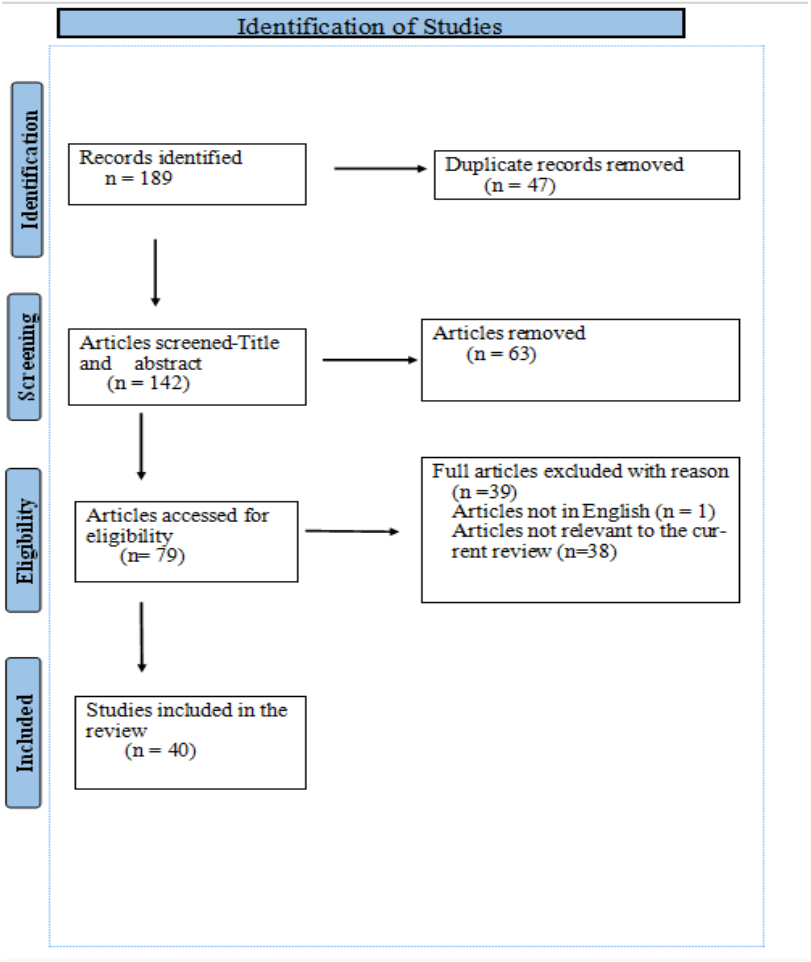

Fig. 1. The PRISMA flow diagram

Two different reviewers reviewed the articles. The research protocol consisted of three successive stages, beginning with title evaluation, followed by abstract review, and then full-text review for eligibility. Consensus was used to resolve disagreements. To check academic integrity in each study, we used an accreditation tool, a quality appraisal rubric. The assessment protocol entailed the evaluation of research materials against the clarity of the objective, the presence of TAM, UTAUT, and institutional theory models, their relevance to the context of Pakistan, and their robust research methodology (Al-Adwan et al.,m 2025; Miniaoui et al., 2026). Research articles that did not meet a predefined basic level of quality were excluded from the composite analysis. The review matrix functioned to streamline the process of data extraction from the analysed sources. The data collection process involved an analysis of each selected article for author information alongside year of publication, source journal, theoretical backbone, research methods, and analysis entities (which could be user-level, firm-level, or regulatory). The applied classification system, known as TCCM, enabled researchers to analyse studies at four connected dimensions, starting from theory to context and methodology (Sharma & Kushwah, 2025; Shamim & Mohan, 2026). NTAUT-based mobile banking research fits the behavioural models' approach at the individual user level, but digital governance policy analysis belongs to institutional framework classification (Mironova & Vasanthakumar, 2026).
The generated data collection delivered an exceptional thematic analysis that integrated both individual perception analysis at the micro-level and FinTech adoption influencing factors at the macro-level (Krishna, Krishnan & Sebastian, 2025; Dewri, 2026). The harmonized method was necessary to identify recurring motifs, contradictory content, and missing information between research papers. The subsequent section contains an organizational breakdown of thematic results across four essential qualities that include user-level determinants, together with financial inclusion mechanisms, alongside institutional governance structures and a synthesized conceptual framework based on the review analysis.

4. Findings and Thematic Synthesis

The results derived from 40 systematically reviewed studies are presented on four major themes, including user-level and behavioural drivers, financial inclusion mechanisms, institutional governance and regulatory structures, and integrated conceptual models. These coding-induced thematic categories appeared throughout the research works, while their placement reflects both the recurrence and significance to theory (see Matrix Table). The research analysis focuses on comparative perspectives that combine methodological differences and contextual background information for each theme. The presence of each theme was analyzed across the studies to construct an empirical foundation of the thematic synthesis. The research

design incorporated a thematic coding matrix to display how the four core dimensions, user-level drivers, financial inclusion, and institutional governance, and integrated frameworks were distributed across the studies. Studies focused mainly on individual adoption intentions plus psychological constructs which equate to behavioural and user-level drivers (Figure below). These factors appeared in 65% of the studies selected for analysis. Financial inclusion appeared in about 50 percent of the analyzed research papers, which focused mainly on development policy and equity. The researchers identified institutional governance as essential to ecosystem change, but it appeared only in 45 percent of studies. Research that combined elements of behavioural, structural, and regulatory models appeared in only 30% of studies.

The frequency analysis is completed with Table X, which depicts a study-wise thematic matrix that uses binary coding (1 for theme existence, 0 for non-existence) and symbolic markers to display theme distribution. The existing studies demonstrate an incomplete literature presentation because researchers tend to study individual dimensions without developing integrated frameworks that unite all components. The findings from this distributional mapping helped create a more developed synthesis that enabled a conceptual and comparative analysis of FinTech adoption research across diverse contexts.

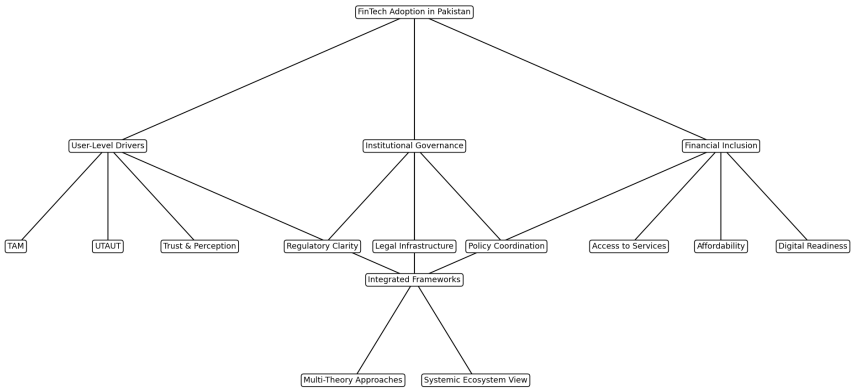

Fig. 2. Thematic Coding Tree of Key Dimensions in fintech adoption literature

Thematic Matrix of Reviewed Studies across SLR Themes

Study	User-Level Drivers	Institutional Governance	Financial Inclusion	Integrated Frameworks
Ali & Abdullah (2020)	1	0	1	0
Nizam et al. (2024)	1	1	1	1
Rizwan et al. (2024)	0	1	1	1
Putra (2025)	0	1	0	1
Rehman & Sadiq (2023)	1	0	1	1
Milian et al. (2023)	0	1	1	1
Gupta & Kaur (2024)	0	1	0	0
Saleem & Bashir (2021)	1	0	0	0
Zahid & Nawaz (2022)	1	0	0	0
Khan et al. (2022)	0	1	1	0
Ahmad et al. (2023)	1	0	0	1
Passanisi (2024)	0	1	1	1
Iqbal et al. (2020)	1	0	1	0
Muschert et al. (2024)	1	0	1	0
Kishor et al. (2024)	0	1	1	1
Tariq et al. (2021)	1	0	0	0
Yasmin & Javed (2022)	1	1	1	0
Farooq & Malik (2023)	0	1	1	1
Shah et al. (2020)	1	0	0	0
Kamal & Arif (2022)	0	1	1	1
Ansari & Basharat (2021)	1	0	0	0
Mehmood et al. (2022)	1	1	0	0
Hussain & Usman (2021)	1	0	1	0
Jamil et al. (2023)	1	1	0	1
Naeem et al. (2024)	1	1	1	1
Bhatti & Raza (2023)	1	1	1	1
Asim & Qureshi (2021)	1	1	0	1
Tanveer et al. (2020)	1	0	1	0
Rauf & Zaman (2022)	0	1	1	0
Amjad et al. (2021)	1	0	1	0
Siddiqui et al. (2020)	1	1	1	0
Hasan et al. (2023)	1	0	1	0
Usmani & Shahbaz (2021)	0	1	0	1
Afzal et al. (2022)	0	1	1	1
Junaid & Zahra (2021)	1	0	0	1
Imran & Rehman (2023)	1	0	1	0
Yousuf & Tariq (2022)	1	1	0	0
Shahid et al. (2023)	0	1	1	0
Baig & Khalid (2022)	1	0	1	0
Tariq et al. (2020)	1	1	1	0

Fig. 3. Thematic matrix of the review articles

Theme 1: User-Level and Technological Determinants

An extensive body of research dealing with FinTech adoption in Pakistan utilizes behavioural user factors because most studies operate from individual-centered theoretical models. User intentions toward digital banking, mobile payments, and financial apps are explained through the joint application of the Technology Acceptance Model (TAM) and Unified Theory of Acceptance and Use of Technology (UTAUT) by numerous studies, including (Hidayat-ur-Rehman & Hossain, 2024),

(Azeem et al., 2023), and (S. A. Raza et al., 2018). Research has identified perceived usefulness, perceived ease of use, social influence, and facilitating conditions as the main factors that determine FinTech adoption (Saleem, 2021 & Tariq et al., 2024). Various user groups benefit from these constructs when applied in empirical research because they produce consistent predictions. The adoption drivers of urban middle-income youth operated through digital ease and mobile utility (Azeem et al., 2023). (Saleem, 2021) demonstrated that convenience, along with cost-efficiency, operates as an important psychological motivator. Multiple research projects expand basic TAM/UTAUT models through trust and perceived risk variables because users commonly restrict their technology adoption behaviour due to concerns about data protection breaches and privacy risks (Mader et al., 2022). Research indicates that users' sustained FinTech adoption highly depends on their trust in the digital platform, together with regulatory oversight and brand legitimacy.

Although these research studies confirm important behavioural constructs, they have limitations in showing the full spectrum of Pakistan's population. Research about Pakistani FinTech use primarily relies on cross-sectional surveys of digital inhabitants from urban areas who are composed mostly of students, along with salaried professionals and entrepreneurs who previously owned smartphones and used internet access (Hidayat-ur-Rehman & Hossain, 2024; Mushtaq et al., 2024). The research designs establish biases that eliminate crucial groups, such as people living in rural areas, together with women trapped in informal employment, and senior citizens with limited digital literacy skills. (Nizam & Rashidi, 2024) show that rural trust networks combined with language barriers and low financial literacy stand as important adoption barriers that user-centric models commonly fail to consider. (Ejaz & Hasan, 2023a) Identify gendered informal expectations towards women and technological dependency on male relatives as factors that hinder FinTech accessibility.

Studies fail to recognize user diversity by viewing all users as the same while disregarding various factors such as age level and educational background, alongside regional and religious beliefs and differing income classes. Behavioural theories lose their ability to adapt across situations when such simplifications are made. The lack of sociological grounding in behavioural analytical studies about FinTech adoption in per-urban communities stands out in studies such as Bhutto et al. (2023). Most existing research analysis mixes the distinction between adoption intention and usage, along with neglecting to study time-related changes of trust perceptions, satisfaction levels, and resistance patterns. Researchers within an evolving literature sub stream work to overcome the existing limitations by developing multi-theory integration models: Integrated Innovation Diffusion Theory (IDT), Institutional Trust Theory into TAM to study micro-entrepreneur adoption behaviour. The researchers suggest combining model structures that measure user attitudes with infrastructure readiness and governance trust assessment to determine adoption success factors (Affandi & Malik, 2021). These combined theoretical frameworks get little use in Pakistan-specific investigations because researchers mostly use basic TAM/UTAUT structures for their studies.

User-level FinTech research shows an immaturity due to deficiencies in both longitudinal studies and qualitative depth, and FinTech adaptations fitted to specific contexts. A prospective research agenda should implement mixed research approaches by fusing behavioural models with narrative and ethnographic analysis to give deeper knowledge about Pakistani community members' reactions toward technology. Academic researchers should investigate how halal compliance standards, language ease of use, and community group support can enhance behavioural theoretical frameworks. Studies should incorporate a wider sampling approach by working together with rural cooperatives, NGOs, or microfinance institutions to expand research evidence.

Theme 2: Financial Inclusion as a Strategic Enabler

Financial inclusion stands as the main focus within research studies. Yet, scholars define it differently to demonstrate its position as both a prerequisite and a resulting effect of FinTech acceptance in Pakistan. Financial inclusion stands as the capability of marginalized people to obtain affordable financial services that allow them to effectively use responsible, sustainable products. Financial inclusion in this research describes the capacity of individuals and enterprises to use and access low-cost and sustainable financial services and products that suit their requirements, according to the World Bank (2023). Institutional governance describes the regulation, law, and oversight mechanisms consisting of formal institutions such as central banks and informal governance networks, shaping digital financial systems. Nearly 50% of Pakistani adults lack banking services (Demircioğlu & Göncü Köse, 2021), yet FinTech develops as a technology-based solution to resolve issues affecting access and equal opportunities for participation (Ejaz & Hasan, 2023; Noor et al., 2022).

Academic studies show that FinTech technology enables previously excluded groups to obtain electronic payments, together with microcredit services and peer-to-peer lending, as well as crowdfunding and safe insurance solutions. Mobile-based digital finance platforms, according to Mader et al. (2022) and Rizvi et al. (2024), reduced transaction costs and minimized barriers to travel, alongside simplifying account opening procedures. The mobile payment platforms Easypaisa and JazzCash have demonstrated success in reaching isolated areas through which women and both informal workers and microbusiness owners can participate in the economy (Ediagbonya & Tioluwani, 2022; Zaidi & Shah, 2023).

Three main factors support FinTech-led inclusion, according to the analyzed research: digital infrastructure accessibility, affordable financial services, and readiness to use digital technology. Mobile money adoption demonstrates a strong relationship with smartphone penetration and mobile internet availability (Basnayake et al., 2024). The infrastructure environment remains inadequate throughout Baluchistan and various areas within Khyber Pakhtunkhwa. (Mavļutova et al., 2022)

established that the combination of poor digital literacy and linguistic barriers prevents people, especially women and elderly users, from effectively utilizing FinTech options. Cost is proven to be a determining element in FinTech success. (Saeed et al., 2024) show that zero-cost transaction methods, together with simplified entry requirements, have successfully attracted users with low incomes who, prior to digital banking systems, struggled with documentation requirements. (Ngonyani, 2022) notes how various hidden fees, like text message costs as well as smartphone repairs, coupled with network service expenses, limit widespread service use. The adoption rates of poor populations will increase when FinTech providers create straightforward cost-transparency solutions that use basic technology.

Financial inclusion requires more than providing people access to services because it depends equally on usage patterns and maintaining trust and empowerment. The literature examines access metrics prominently yet fails to recognise user involvement patterns throughout service usage periods (Noor Salah Alramadan, 2021) & (Stephen et al., 2024). Gendered power dynamics in society prevent women who use mobile financial service wallets from exercising complete control, even though their names match registration information. The inadequate digital process of handling complaints separates low-income users from using FinTech as their main financial platform (Imam et al., 2022).

The analysis of inclusivity lies behind the surface level of investigation in most focus groups. Most research about financial inclusion utilizes only Digital Divide Theory, Capability Theory, or Sociotechnical Systems Theory to frame their work (Haridh, 2022; Kanga et al., 2021). Current research stands insufficient due to the lack of theoretical interpretations which position inclusion within frameworks of power structures and systematic restrictions.

The available research fails to analyse how various intersections affect the challenge of inclusion extensively. The lack of specific analysis distinguishes between population types based on gender, region, education level, or disability while studying "unbanked" populations. The analysis of targeted barriers related to mobile restrictions for female users in conservative areas and biometric challenges faced by disabled clients lacks thorough examination in academic literature (Al-Jabri & Sohail, 2012; Noor et al., 2022). The emerging body of research endorses FinTech products whose development includes excluded population participants through participatory design methods and adaptive user interface and user experience approaches (Saleem, 2023). The Pakistani FinTech industry has limited implementation of inclusive innovation strategies despite such methods holding considerable potential to drive adoption, together with user empowerment.

Theme 3: Institutional Governance and Regulatory Influence

Studies about institutional governance represent a fundamental yet overlooked theme in the FinTech adoption framework of emerging markets, particularly Pakistan. User-level factors and financial inclusion receive most academic attention. Still, institutional governance, consisting of legal and regulatory and supervisory frameworks, plays a fundamental role in creating sustainable conditions for FinTech integration. The 40 analyzed studies show limited involvement with governance mechanisms totaling 45%, even though researchers agree (Hsieh et al., 2024; Adeoye et al., 2024; Imam et al., 2022) that digital financial systems need strong governance frameworks for success.

The evaluation of FinTech by governance-related studies focuses on how regulatory clarity, combined with compliance mechanisms, data protection policies, and institutional trust, shapes both consumer confidence and institutional investment in FinTech (Sahar Iqbal, 2024; Omotoya Bukola Adeoye et al., 2024). The State Bank of Pakistan (SBP), together with the Securities and Exchange Commission of Pakistan (SECP), has launched several initiatives, including branchless banking guidelines and FinTech sandboxes, alongside digital identity frameworks through NADRA, to develop the FinTech framework in Pakistan. Several researchers (Zaidi & Shah, 2023) and (Imam et al., 2022)assert that the regulation of FinTech remains divided and outdated when communicating updates to fundamental financial actors and smaller FinTech startups.

Various studies emphasize the lack of cohesion in the FinTech strategy that exists at the national level. The enhancements made by SBP to mobile banking and e-KYC procedures coexist with regulatory uncertainties produced by overlapping jurisdiction between financial regulators, as well as telecom and IT regulators (Sultan et al., 2023). The confusion about digital service taxation, along with consumer data storage regulations and licensing rules, prevents global investor entry and domestic innovation growth. The research by Adeoye et al. (2024) exposes how unpredictable compliance standards create operational slowdowns and legal security risks that affect new FinTech businesses.

The confidence people have in their governance institutions becomes a vital factor which affects their decisions. The adoption of digital finance faces major obstacles because people lost trust in institutions after experiencing past financial scams, together with public corruption and inadequate redressed systems (Nizam & Rashidi, 2024; Noor et al., 2020). Consumers avoid mobile wallets and digital lending platforms when they observe insufficient institutional oversight or encounter fears about cyberattacks, especially when dispute resolution systems are not properly established. The concept that formal finance does not align with rural communities and individuals who lack education intensifies their doubts about formal financial systems (Ejaz & Hasan, 2023b).

FinTech providers encounter unclear regulations when applying for licenses, along with compliance audit requirements, and seeking authorisation for crowdfunding, peer-to-peer lending, and crypto-based transactions. (Adeoye et al., 2024) Stress that obscure regulatory approval processes deter companies from developing new FinTech products, which restricts the growth potential of FinTech innovations. A limited number of Pakistani studies examine the approaches startups take

in facing regulatory constraints, even though addressing these issues in policy creation matters. Available studies fail to establish proper theoretical frameworks for examining governance issues. The empirical sector fails to validate the frameworks of institutional theory and regulatory trust models and public-private governance paradigms, although these concepts appear in theoretical discussions. (Cheng, 2021) and (Imam et al., 2022) represent the limited examples where researchers utilise structured governance models to demonstrate how regulatory support enhances traditional behavioural drivers as a contextual enabler. The insufficient conceptual study of governance creates a research space that future studies should fill by discussing how governance influences the FinTech system through mutual development.

Research has so far given insufficient attention to studying governance mechanisms that involve multiple stakeholders. The literature favors studies about state-managed regulatory bodies, yet neglects to explore how telecom providers, along with microfinance institutions, NGOs, and user communities, contribute to governance norm development. The development of regulatory sandboxes that involve multiple stakeholders, along with inclusive policy creation strategies, has proven effective in drawing better adoption results, along with trust enhancement, according to research conducted in Indonesia and Kenya (Senyo et al., 2024). Research based in Pakistan would gain value by employing this analytical approach. Comparative reflections between Kenya and Indonesia (Senyo et al., 2024) unveil that co-created FinTech regulatory sandboxes, which are inclusive in nature and developed in collaboration with telecoms, civil society, and users, instill greater public trust, higher adoption rates, and more resilient digital ecosystems. Pakistan can use such collaborative models to its advantage.

Theme 4: Toward an Integrated Conceptual Framework

Research on user-level behaviours with financial inclusion and institutional governance remained mostly separate in academic discussions but received scarce attention when combined into complete models according to the reviewed literature. About 30 percent of the research employs multi-theory approaches to study FinTech adoption by exploring its dynamic effect on individuals alongside organizational, infrastructural, and policy-level factors. Insufficient research integration about FinTech in Pakistan creates a thematic void that demonstrates isolated examination of behavioural and structural elements, together with institutional elements.

The evolution of FinTech ecosystems requires integrated assessment methods because these systems function as integrated structures. Handpicked studies conducted by Hsieh et al. (2024) and Haridh (2022) demonstrate that user behaviour results from regulatory clarity alongside established infrastructure, institutional trust, and socioeconomic access. These studies integrate TAM, UTAUT, Institutional Theory, TOE (Technology-Organization-Environment), and Digital Divide Theory into their research, which creates an explanatory framework that combines individual-level behavioural components with environmental constraints for better understanding.

The systems view remains scarce in Pakistani scholarly research despite its proven usefulness. (Hidayat-ur-Rehman & Hossain, 2024) examined the relationship between mobile banking adoption and three factors: governance trust, mobile infrastructure, and digital literacy. (Azeem et al., 2023) created a FinTech uptake model that combined TAM and Institutional Theory while incorporating two predictors consisting of perceived ease of use and regulatory confidence. Exceptions to this rule are rare in the field of research.

Most research on Pakistani FinTech analytics continues to apply single-layered linear models that overlook cross-domain system interactions, according to existing literature. The current analytical approaches fail to adequately explain how real-world phenomena affect behavioural intent, together with financial exclusion mechanisms that shape mobile app use. The limitations prevent the study from reaching useful theoretical implications as well as policy applications. Several research studies lack conceptual frameworks that represent ecosystem interdependencies and feedback loops. Research based on exosystemic views, which adopts theories such as the sociotechnical systems theory or adaptive institutional theory, fails to appear in Pakistan-based FinTech research. Programs designed to understand technology adoption require frameworks that track circular interactions between changing institutions and evolving user trends, along with policy adjustments.

Studies reviewed did not make use of system dynamics modelling and agent-based simulation models or network analysis for analysing complex adoption ecosystems. Studies worldwide deploy such approaches to explore interaction dynamics among FinTech companies, together with regulatory bodies and telecom operators, as well as unprivileged customer groups. Two scientific investigations have shown how these models diagnose key obstacles together with facilitators and unanticipated results of FinTech systems in Kenya and India (Senyo et al., 2024); (Imam et al., 2022). Research conducted in Pakistan is diminished by its lack of methodological variety.

Essential for policy design lie integrated frameworks that must be used when developing inclusive and innovation-friendly digital finance ecosystems. Policymakers who analyse problems at multiple levels can avoid creating disconnected or mismatched interventions like mobile promotion without parallel infrastructure and grievance systems updates.

The field welcomes new approaches that emphasize “FinTech policy co-design” because they bring together public-private talks combined with user input and model application to build inclusive digital finance practices (Zaidi & Shah, 2023; Senyo et al., 2024). Aspects of digital finance policy continue to stay unaddressed in Pakistan because the government focuses predominantly on regulatory approaches in its digital finance agenda.

Table 1
The summary of thems

Cross-Thematic Comparison Theme	Cross-Thematic Comparison Theoretical Models Used	Cross-Thematic Comparison Dominant Methods	Cross-Thematic Comparison Coverage (n=40)
User-Level Drivers	TAM, UTAUT, TPB	Quantitative Surveys	12
Financial Inclusion	None / Development Lens	Qualitative / Policy	12
Governance	Institutional Theory	Mixed / Conceptual	13
Integrated Frameworks	TCCM, TOE, Institutional Mix	Systematic Reviews / Hybrid	4

The structured overview in Table X synthesizes the dominant modelling approaches and research methods and their spread across the 40 analyzed studies using a thematic synthesis and a comparative framework. The matrix presented highlights important differences between research approaches that study and explain FinTech adoption across different fields.

Research in the User-Level Drivers theme applies behavioural models such as TAM, UTAUT, and TPB, and survey-based quantification methods are the primary research approach. The literary discussion in this field is mainly focused on psychological assessments, such as perceived usefulness and perceived ease of use. The theoretical basis of financial inclusion is weak and is based mainly on development-oriented and policy perspectives, with mostly qualitative case research and descriptive analyses. The Institutional Governance stream is drawing on varied research methodologies, including conceptual and mixed methods approaches, but is largely untheorized around general applications of institutional or regulatory trust theory. This theme is the least developed, however, as researchers have not yet advanced its theoretical framework nor strengthened its empirical foundation. The dataset shows that only four studies aim to integrate behavioural, institutional, and infrastructural dimensions through TCCM, TOE, or hybrid framework applications. The variation among the FinTech research themes shows that the stage of methodology and theoretical development in Pakistan is yet to reach a level where it provides comprehensive explanation or prescription capabilities.

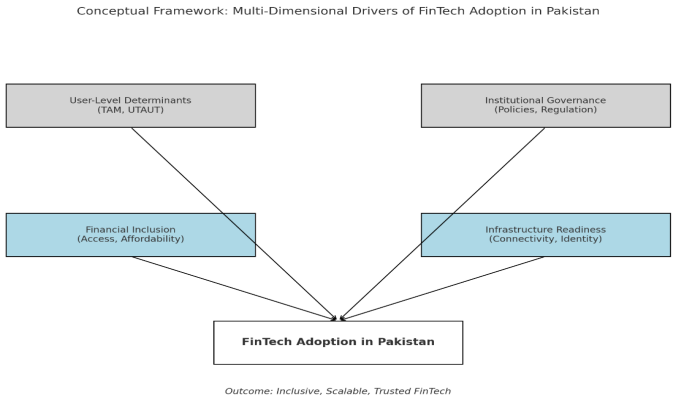

Fig. 4. The conceptual freamework: Multi-Dimentional Drivers for FinTech Adoption in Pakistan

5. Discussion

The systematic review showed a multifaceted ecosystem where the adoption of FinTech in Pakistan is influenced not only by individual user behaviour but also by systemic governance, financial infrastructure, and sociotechnical conditions. Rather than treat these as isolated variables, this discussion synthesizes insights across themes to offer a more holistic, layered understanding of FinTech adoption in low-inclusion, high-potential economies like Pakistan.

5.1 Multi-Level Adoption Drivers: From Perception to Ecosystem

The evidence from the combination of research studies suggests that the user-level characteristics are the most examined dimension of FinTech acceptance in Pakistan. The analyzed behavioural intention factors are based on the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) as the main theoretical foundation. The main predictors of behavioural intention are perceived ease of use, usefulness, trust, social influence, and perceived behavioural control (Saleem, 2021; Ediagbonya & Tioluwani, 2022; Basnayake et al., 2024). This paper uses survey data and Structural Equation Modelling (SEM) to report statistically significant findings on the determinants impacting user acceptance of FinTech solutions such as mobile wallets, P2P lending services, and branchless banking platforms.

The review confirms that researchers have rigorously employed these methods, yet this approach creates theoretical constriction and obfuscates demographic groups. Most research focuses on urban users who are tech-savvy and possess university education but ignores the behaviours of rural, low-income, and less literate populations (Noor et al., 2022; Mader et al.,

2022), leading to convenience bias in the study results. The factors of digital trust and usability show robust usage predictions for younger demographics and specific user groups such as elderly adults and women from traditional areas and rural micro-entrepreneurs, but these groups make digital adoption choices based on their access to mobile technology, digital proficiency, and community approval standards (Ali & Abdullah, 2020; Ediagbonya & Tioluwani, 2023).

The simplistic behavioural approach requires reconsideration because it provides statistically valid results that overlook crucial institutional and structural factors that help define technology adoption in emerging economies. The combination of Institutional Theory and Technology-Organization-Environment (TOE) and Innovation Diffusion Theory (IDT) in research models produces a more extensive understanding of organizational readiness influences alongside environmental conditions and institutional trust on adoption results (Senyo et al., 2024; Adeoye et al., 2024). The analysis includes minimal investigation into interaction effects because institutional governance shows how it acts as a behavioural intent moderator, while digital literacy serves as a trust adoption mediator. Such advanced analytical methods lead to the development of context-specific frameworks and help produce generalizable findings beyond specific user types.

An analysis of Table X alongside Figure X confirms the segmented nature of the research field. The user-level domain receives extensive attention in terms of coverage but maintains strong conceptual isolation from other domains. The analyzed studies exclusively separate user behaviour from institutional and infrastructural elements by studying individual behaviours in isolation. The resulting analysis threatens complete misjudgment regarding adoption preparation as well as fundamental operational barriers that may persist in hindering long-term participation and expansion potential. Research examining developing economies must maintain a distinct evaluation of user expectations about adoption versus their actual system engagement because this difference is highly important, emphasizing that the gap between user intentions and actions develops due to financial disruptions, digital trust issues, and fraud occurrences alongside service channel availability disagreements, which remain unidentified through individual-level analysis (Basnayake et al., 2024). Behavioural willingness to use FinTech services does not lead to adoption in practice unless infrastructure is available along with reliable institutions for support and defined complaint procedures.

Research based on user-level studies dominates existing literature, while longitudinal research remains almost non-existent. All researched studies employ a cross-sectional design, which prevents monitoring behavioural transformations across time periods, such as post-regulatory alterations and COVID-19-related crises. The inability of behavioural models to address current user demands due to their time-dependent limitation hinders their usefulness for policy development and product development.

5.2 Financial Inclusion as Both Input and Output

The reviewed literature identifies financial inclusion as the core objective that drives FinTech development throughout Pakistan. The analyzed body of literature presents financial inclusion as a result that emerges after digital financial technologies become accessible to underdeveloped populations. The majority of available research fails to recognize financial inclusion as a necessary pre-existing condition for FinTech adoption that determines which users can understand and utilize digital financial tools (Ejaz & Hasan, 2023a; Noor et al., 2022; Adeoye et al., 2024).

Inclusion is multifaceted; the extent of inclusion encompasses more than banking numbers or digital payments since it demands both price accessibility and computer literacy, cultural acceptance, and technological capabilities (Senyo et al., 2024; Basnayake et al., 2024). The statistical rise in mobile wallet penetration does not provide genuine financial inclusion if user trust in the provider or understanding of functions remains superficial, along with their lack of control. Research shows that women and informal workers mainly function as intermediaries between financial technology and their male relatives, who complete transactions because of cultural restrictions and issues with using technology interfaces, as documented by Karim et al. (2022) and Ediagbonya & Tioluwani (2022).

Currently, the Pakistani situation displays substantial framework and cognition-related obstacles that challenge the FinTech industry's role as a financial equality-driving disruptive force. The provinces Baluchistan and interior Sindh, together with rural KP, experience restricted outreach because of inadequate internet connectivity, unstable mobile networks, and low smartphone penetration rates (Ejaz & Hasan, 2023a). Financial participation requires more than mere access because it demands equal and long-term active utilization of financial innovations by all stakeholders. There is a major methodological shortcoming since only a few studies employ quantitative approaches to model financial inclusion. The majority of papers describe inclusion or refer to it anecdotally instead of using statistical data on variables such as digital access or mobile infrastructure to explain adoption patterns (Malokani et al., 2023). Strong evidence is absent in the literature about the relationship between inclusion mechanisms and behavioural and regulatory elements.

Industry professionals have failed to recognize how FinTech product design determines the development of inclusive user experiences. The current Pakistani FinTech market has focused on developing platforms for banked audiences instead of serving unbanked people. The current digital design implementations of KYC methods, alongside onboarding operations and interface verbalization, depend on users having complete literacy and advanced smartphone familiarity and dependable digital identity security. The misalignment between access and usage creation contributes to an exclusionary gap because people may possess access but lack empowered usage (Nizam & Rashidi, 2024; Al-Jabri & Sohail, 2012).

Research involving inclusion approaches generally fails to utilize intersectional assessment methods. The research landscape of Pakistan shows limited data analysis that splits social data by factors such as gender, along with age groups, income levels, geographical areas, and disability status. The lack of discernment between different exclusion categories makes it difficult for policy creation to proceed efficiently. Research typically assumes that problems faced by a 50-year-old female rural small trader differ substantially from those experienced by a 20-year-old male college student in urban areas, even though both fall under categories like "unbanked" and "digitally excluded."

Research risks limited conceptual validity because inclusion remains absent in theoretical models. Research models about user behaviour generally treat inclusion as either an effect or a descriptive factor, but do not accept it as the foundational element that shapes adoption behaviour. The review documented a lack of significant usage of the Capability Approach, Digital Divide Theory, and Social Inclusion Theory. However, these approaches could enrich researchers' perception of FinTech-based financial empowerment (Senyo et al., 2024).

Studies are few in number which examine the way institutional coordination affects inclusion levels. Programs for cash transfers managed by the government, such as BISP and Ehsaas, operate through digital payment systems developed by telcos. The lack of interoperability between FinTech systems, along with infrequent regulations and non-existent public-private data-sharing protocols, works against the long-term scaling of inclusion-focused FinTech initiatives.

5.3 Institutional Governance as a Foundational Enabler

The relationship between users and FinTech technology depends heavily on behavioural willingness and financial capabilities, but much more fundamental is the regulatory and institutional structure, which determines how FinTech grows safely and equitably. Institutional governance stands as the primary factor that affects FinTech adoption in Pakistan, even though researchers examine it less than user-level and inclusion themes (Hsieh et al., 2024; Adeoye et al., 2024).

Studies related to FinTech governance typically analyse it through formal administrative policies or licensing requirements only. The extensive view presented in international research and developing Pakistani scholarship emphasizes regulatory clarity and legal safeguards in addition to supervisory systems and institutional trust, as well as stakeholder alliances and data security protocols (Stephen et al., 2024; Ferilli et al., 2024). The institutional structures play a dual role by reducing risks and establishing confidence, which becomes vital to gain acceptance from risk-averse users, cautious businesses, and international investors.

The State Bank of Pakistan (SBP), together with the Securities and Exchange Commission of Pakistan (SECP), has implemented branchless banking licenses, FinTech sandboxes, and digital KYC mechanisms as regulatory initiatives. The literature proves that regulatory issues consisting of bifurcated policies and procedural obscurity and delayed reactive decision-making continue as ongoing problems (Omotoya Bukola Adeoye et al., 2024; Kusi, 2021; Hussain et al., 2016).

Studies indicate that the unclear relationships between tax codes with cybercrime laws and financial regulations create uncertainty for startups in the FinTech sector. When innovation moves faster than regulatory structure development, entrepreneurs encounter both uncertainties about compliance rules, along with license delays, in addition to various jurisdictional hurdles (e Rehman et al., 2022; Sahar Iqbal, 2024). New businesses that lack experience in legal affairs and monetary resources face major difficulties while trying to handle shifting and confusing regulatory frameworks. Various sectors of the population exhibit inconsistent beliefs in institutional figures. Trusting formal institutions has become challenging because public confidence has eroded from having faced financial scams alongside weaker dispute resolution mechanisms and insufficient consumer protection throughout history. As stated by Jafri et al. (2024), they demonstrate that FinTech users opt for traditional informal money networks instead of available FinTech options because they doubt official supervision functions, together with system dependability.

The importance of governance gets little attention, although a few researchers make it a central element within their main analysis framework. The usage of Institutional Theory remains scarce in academic research while showing limited explanation of its theoretical components. Closer to default are descriptions about policy frameworks rather than systematic examinations that explain how regulatory acceptance and coercive systems and institutional copying patterns impact acceptance. The lack of examination here constitutes an essential hole in knowledge (Al-Jabri & Sohail, 2012; Hussain et al., 2025).

Research literature shows minimal focus on governance models with multiple stakeholders. Literature studies typically examine central banks and government agencies instead of investigating the governance roles telecom providers, along with NGOs, as well as local authorities, religious institutions, and fintech user communities, could play in determining governance results. Research international studies carried out in Kenya and Indonesia confirm that distributed governance systems based on co-regulation alongside sandbox testing and grassroots interaction produce superior results for trust and innovation (Khan et al., 2019; Noreen et al., 2022).

The review discovers there is no existing longitudinal study about regulatory effects. The analysis demonstrates how regulatory changes, including digital ID laws, tax reforms, and cybersecurity protocols, fail to receive scientific empirical research on their influence on FinTech adoption over time. Lack of both strategic foresight and policy responsiveness exists

due to limited data about regulation impacts, which prevents evaluation of current governance performance and potential adjustments.

5.4 Theoretical Contributions, Policy Implications, and Practice Recommendations

Theoretical Contributions

This review enhances theoretical knowledge of FinTech adoption through its introduction of an integrated analysis combining behavioural, institutional, and infrastructural viewpoints (Albuainain & Ashby, 2025). The paper advocates for multi-theory integration through Institutional Theory, together with Technology-Organization-Environment (TOE) and Innovation Diffusion Theory (IDT), and Digital Inclusion models, while departing from the previous research practice of utilizing single-theory frameworks like TAM or UTAUT (Babu et al., 2024; Yan & Ahmad, 2025; Ramadhan, Darmansyah & Nugroho, 2026). A new theoretical perspective (Figure X) establishes a connection between behavioural and institutional, along with infrastructural dimensions, to function as an academic foundation for research in emerging markets. The review develops financial inclusion and institutional governance as essential variables that have direct effects and adjustment powers on adoption processes. This paper expands the present FinTech theory about the underdeveloped digital ecosystems of Pakistan by treating these constructs as core drivers rather than supplementary elements.

Policy Implications

The study presents current information that directs regulators and public institutions through Pakistan's fast-growing FinTech environment. Development of trust and market uncertainty reduction requires both regulatory clarity and data protection laws, and expanded cooperation between government agencies. Public authorities need to shift their approach from fragmented emergency responses to the establishment of strategic multi stakeholder policies across different sectors. Improving FinTech acceptance requires regulators to create dedicated testing areas and tax benefits specifically designed for the industry, while forming combined regulatory bodies that incorporate members from SBP, SECP, NADRA, and telecom regulators (Goyal, Saxena & Bajaj, 2025; Ayong, 2026). Women, together with low-income residents and users of rural areas, have specifically been neglected by the lack of inclusive policy co-design approaches (Petrovski & Djukic, 2026). Initiatives should be established by policymakers to create inclusive policy tools, including progressive KYC processes and full digital identity services and user interface elements available in local languages, and user feedback systems built into regulatory systems.

Practice Recommendations

The study demonstrates that FinTech firms need to change their innovation approach from growth-focused to inclusion-based strategies. Design practice needs to expand its focus from appearance and functionality to include features that support low-literate customers, affordable pricing strategies, and vernacular interface systems (Medhi Thies, 2015; Islam et al., 2023). The integration of civil society partnerships along with telecom companies and microfinance institutions allows firms to develop jointly made products that resolve structural barriers to device access, identity validation, and digital literacy. Financial institutions, especially incumbent banks, can use the review findings to build a modular FinTech partnership structure that enables them to adopt agile user-focused financial services from third party providers. The establishment of transparent systems alongside protection measures for customers and proper channels for grievance handling helps lower user resistance and build trust (Stevens et al., 2018). Educational researchers, along with public officials, need to develop interdisciplinary collaboration between finance experts, public policy experts, data scientists, and behavioural researchers to drive inclusive innovation in Pakistani digital finance.

5.5 Research Gaps and Future Directions

There is a lack of well integrated multi-theory models covering user behaviour, governance, and infrastructure in the research on FinTech in Pakistan (Boughanzai et., 2026). Future research should employ frameworks that combine TAM, Institution Theory, and Sociotechnical perspectives (Desveaud & Bawack, 2026). More longitudinal and mixed-methods research is needed with rural, low-income, and digitally excluded users. Open questions include, 'How does digital trust evolve after policy reforms? There is very little research looking at the impact of real-time regulatory changes or interagency cooperation. For instance, 'How does institutional trust moderate FinTech use among rural populations in Pakistan?' is a badly researched policy question.

Future research on digital finance should adopt both stratified and purposive sampling techniques to gather data from vulnerable populations, such as women, rural citizens, and informal Labour force members. Future research should employ extended time-span studies and multiple research methods, integrating data analytics information with official policy evaluations and field based qualitative data analysis, for a deeper understanding of digital financial adoption dynamics (Junior Ladeira, Hasan Jafar & de Oliveira Santini, 2026). Other methodological innovations, such as agent based modeling, systems dynamics, and network analysis, help to demonstrate interaction between actors in FinTech ecosystems in different policies and infrastructure conditions (Stein, Evers & O'Gorman, 2026; Chen et., 2026). Future research along these avenues will enable progress beyond basic descriptive findings to help the development of inclusive digital financial systems that meet the needs of developing economies. In the future, empirical testing of the framework should involve longitudinal

fieldwork and simulation approaches, such as agent-based modelling and system dynamics. These tools would help in exploring multi-actor relations and measuring long-term effects of regulatory reforms and digital trust communities in different demographic settings in Pakistan.

6. Conclusion

This paper offers the first comprehensive exosystemic review of Pakistan's FinTech adoption, synthesizing behavioural, institutional, and infrastructural paradigms into an integrated model. This offering presents a reproducible frame of reference for other emerging economies looking for scalable, sustainable FinTech ecosystems. The review analyzed multiple adoption drivers of FinTech solutions for Pakistani banking through an analysis of 40 scholarly papers that investigated user behaviour patterns, institutional governance systems, and financial inclusion strategies, as well as wider FinTech ecosystems. The review began because researchers understood FinTech operates as both technological and socio-institutional innovation, but requires comprehensive analytical methods beyond behavioural theories and single-level models. The finance technology adoption in Pakistan's context faces multiple interacting micro- and macro-level forces since it exists within a space where exclusion from banking, along with regulatory obstacles and inadequate infrastructure, takes place.

Data demonstrates that analysis of user-level factors dominates as the study's core, although they function independently from essential structural and institutional elements that affect meaningful adoption. The predictive capability of trust, ease of use, and perceived usefulness becomes limited when technology accessibility, digital literacy, and infrastructure are distributed unfairly. The article shifts its approach to finance inclusion by treating it as an active factor that shapes digital economy participants together with their terms of engagement. A separate section about institutional governance stands as an essential yet insufficiently explored fundamental element. The long-term stability of FinTech systems in emerging markets depends on clear regulations with harmonious policies and coordinated stakeholder efforts because these aspects build trust within markets.

The paper delivers valuable theoretical and practical contributions. The paper shows how integration of research methods linking behavioural analysis with regulatory measures and advancement dynamics remains essential from a thematic point of view. The suggested conceptual framework integrates a single model that captures FinTech adoption phenomena across its multiple layers by including individual perception elements together with organizational frameworks and system facilitators. The review teaches both policy creators and industry participants that FinTech systems requiring scalability and trust need specific focus on infrastructure readiness and localized user experiences and regulatory design. Researchers should conduct additional studies using multiple theoretical frameworks with representative research subjects who undergo long-term observation to advance these insights. The people who face financial and digital exclusion in Pakistan need their lived experiences to be thoroughly studied as a top priority for building knowledge in FinTech research. The expansion of FinTech requires parallel scholarly and policy development because digital finance must function as an inclusion tool rather than create new inequality layers in low- and middle-income countries.

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