FutureX Journal, 89-107
Volume 3 (2), December 2025

Regenesys Education
ISSN: 2959-2798

From traditional finance to fintech ecosystems: A conceptual review and research agenda

Ameya Rane and Bhumika Patel[1]
Regenesys Business School (India Office), South Africa

Keywords

Fintech

Traditional finance

Digital finance

Ecosystems

Digitalisation

Abstract

Research in the field of fintech has proliferated significantly in the last ten years, investigating its effects on competitiveness, financial inclusion, efficiency, and stability. Research indicates that fintech might improve financial inclusion by lowering transaction costs and surmounting geographical obstacles. With this backdrop, the present study is a conceptual study where the historical perspective from traditional finance to digital finance is discussed. Various government and private reports have been used and analysed to assess the information. Study offers conceptual framework surrounding fintech ecosystems.

[1] Corresponding Author can be contacted at: bhumikap@regenesys.net

1. Introduction

The global financial system is experiencing a fundamental shift propelled by swift advances in digital technology and evolving customer expectations. Historically, financial services were mostly controlled by regulated intermediaries, including banks, insurance firms, and capital market entities, which functioned through hierarchical organisational frameworks and physical distribution networks. This conventional finance model was essential for maintaining financial stability and trust, yet it often entailed elevated transaction costs, constrained innovation, information asymmetries, and limited access to financial services for significant portions of the population (Gurley & Shaw, 1960; Allen & Santomero, 1997).

The advent of financial technology (fintech) has profoundly altered this institution-centred paradigm. Fintech encompasses the use of digital technologies such as mobile computing, big data analytics, artificial intelligence, cloud computing, and distributed ledger technologies to enhance the provision and efficiency of financial services (Arner, Barberis, & Buckley, 2015). Initial fintech developments concentrated on financial operations, including payments, peer-to-peer lending, crowdfunding, and robo-advisory services. These innovations confronted established financial institutions by providing swifter, more economical, and customer-focused solutions, enhancing competition in the financial industry (Vives, 2019).

As fintech acceptance intensified, it became clear that financial innovation was no longer limited to discrete technological applications. Fintech has developed into a sophisticated and interrelated system with several participants, including traditional banks, fintech startups, big tech companies, regulators, infrastructure suppliers, and end users. This shift has led to the emergence of fintech ecosystems, characterised by value creation through collaboration, competitiveness, and co-creation among many actors using common digital platforms (Zetzsche, Buckley, Arner, & Barberis, 2017; Lee & Shin, 2018).

The ecosystem concept represents a significant shift from conventional notions of financial intermediation. Fintech ecosystems are defined by network-based architecture, platform governance, and data-driven intermediation, rather than linear value chains controlled by individual institutions. Digital platforms facilitate interoperability via application programming interfaces (APIs), permitting various service providers to amalgamate payments, lending, insurance, and investing services into cohesive user experiences. Data has

become an essential asset in these ecosystems, enabling real-time risk evaluation, customised financial products, and automated decision-making (Buchak et al., 2018; Goldfarb & Tucker, 2019).

Research in the field of fintech has proliferated significantly in the past 10 years, investigating its effects on competitiveness, financial inclusion, efficiency, and stability. Research indicates that fintech might improve financial inclusion by lowering transaction costs and surmounting geographical obstacles, especially in emerging and developing economies (Demirgüç-Kunt et al., 2018; Ozili, 2018). Alternative research highlights the competitive pressure that fintech exerts on established banks, compelling them to implement digital strategies, establish collaborations, or restructure business models (Thakor, 2020). Simultaneously, apprehensions have emerged concerning cybersecurity threats, data privacy, regulatory arbitrage, and the potential consolidation of market power, particularly with the increasing participation of big tech companies in financial services (FSB, 2019; IMF, 2022).
Notwithstanding the expanding corpus of empirical studies, the literature on fintech continues to be disjointed and frequently focused on individual technologies. A significant portion of the current research concentrates on discrete applications such as mobile payments or digital lending without adequately incorporating these advancements into a comprehensive systemic framework. Further, conventional financial theories centred on bank-centric intermediation and balance-sheet lending provide inadequate insight into the dynamics of platform-based, multi-actor fintech ecosystems. As noted by Gomber et al. (2018), there is a pressing need for conceptual clarity and integrative frameworks that capture the structural transformation of financial systems in the digital era (Feyen et al., 2021).

This gap is especially pertinent for emerging nations, as fintech ecosystems frequently engage with public digital infrastructure, regulatory innovation, and development-focused policy goals. In these circumstances, fintech not only complements traditional finance but frequently replaces inadequate or underdeveloped financial institutions, transforming avenues for financial inclusion and economic involvement (Suri & Jack, 2016; Frost et al., 2021; IMF, 2022). Comprehending fintech from an ecosystem perspective is crucial for academic research and policy development.

In this context, the current paper provides a conceptual analysis of the shift from conventional finance to fintech ecosystems. The article amalgamates current research from finance, economics, and information systems to provide a comprehensive understanding of fintech ecosystems, their essential components, and fundamental mechanisms. The study adopts an ecosystem view, transcending firm-level analysis to emphasize the networked, data-driven, and institutional characteristics of modern financial innovation. Additionally, the paper presents a systematic research plan to direct next theoretical and empirical investigations in this swiftly advancing domain.

The research presents three key contributions. *First*, it elucidates the conceptual differentiation between conventional banking and fintech ecosystems by highlighting the transition from hierarchical intermediation to platform-centric networks. *Second,* it synthesises various theoretical frameworks to elucidate the formation and operation of fintech ecosystems. *Third*, it delineates significant research deficiencies and proposes future research trajectories with ramifications for academics, politicians, and practitioners.

The subsequent sections of the paper are structured as follows. Section 2 delineates the transition from traditional finance to fintech-enhanced paradigms. Section 3 delineates fintech ecosystems and their fundamental components. Section 4 examines the theoretical underpinnings pertinent to ecosystem-based finance. Section 5 formulates a conceptual framework and research propositions. Section 6 analyses dangers and regulatory challenges, Section 7 outlines a future research agenda, and Section 8 ends with policy implications.

2. Evolution from traditional finance to fintech ecosystems

The transition from traditional finance to fintech ecosystems is a fundamental reorganisation of financial intermediation, market structure, and value generating processes. Historically, traditional financial systems were governed by regulated intermediaries, especially banks, which executed essential duties including mobilising savings, distributing credit, facilitating payments, and controlling risk. The classical theory of financial intermediation emphasizes the function of these institutions in diminishing transaction costs and alleviating information asymmetries between savers and borrowers (Gurley & Shaw, 1960; Allen & Santomero,

1997). Financial services were provided via physical branch networks and relationship-driven models, leading to generally stable yet frequently inflexible and restrictive systems.

For decades, advancements in conventional finance were incremental and internally motivated. The initial stages of financial digitalisation concentrated on automating back-end procedures and enhancing operational efficiency using technologies like core banking systems, automated teller machines, and internet banking platforms. Although these advancements improved convenience, they did not substantially transform the framework of financial intermediation, as banks remained the primary gatekeepers of financial services (Vives, 2019).

A significant transition occurred in the mid-2000s and intensified with the global financial crisis of 2008. The crisis revealed inherent vulnerabilities in conventional finance, including excessive risk concentration, lack of transparency, and diminishing public confidence in established institutions. Simultaneously, advancements in mobile internet, cloud computing, data analytics, and application programming interfaces (APIs) substantially reduced entry barriers for non-bank entities. This atmosphere enabled the rise of fintech companies providing specialised digital solutions in payments, peer-to-peer lending, crowdfunding, and wealth management (Arner et al., 2015).

This era was marked by the disaggregation of financial services, in which distinct financial functions were detached from conventional banking value chains and provided via digital platforms. Fintech companies used technology and alternative data to circumvent traditional intermediation channels, providing expedited, cost-effective, and more user-focused services. Empirical data indicates that these advancements heightened competition and diminished banks' cost and informational advantages, especially in consumer loans and payments (Buchak et al., 2018; Thakor, 2020).

The relationship between banks and fintech startups has moved from competition to enhanced collaboration over time. Established financial institutions reacted by implementing digital strategies, forging alliances, buying fintech firms, and adopting open innovation frameworks. Regulatory authorities have also evolved by implementing regulatory sandboxes, innovation centres, and open banking programs designed to foster innovation while ensuring financial

stability and consumer protection (Gomber et al., 2017; Cornelli et al., 2020). These advancements signified the shift from stand-alone fintech applications to fintech ecosystems interconnected networks of financial and non-financial entities functioning on a common digital infrastructure. Unlike linear and institution-centric models of traditional finance, fintech ecosystems feature modular architectures, interoperability, and platform-based coordination. Digital platforms allow various service providers to coexist, while APIs enable the integration of payments, lending, insurance, and investment services into cohesive financial experiences (Lee & Shin, 2018; Zetzsche et al., 2017).

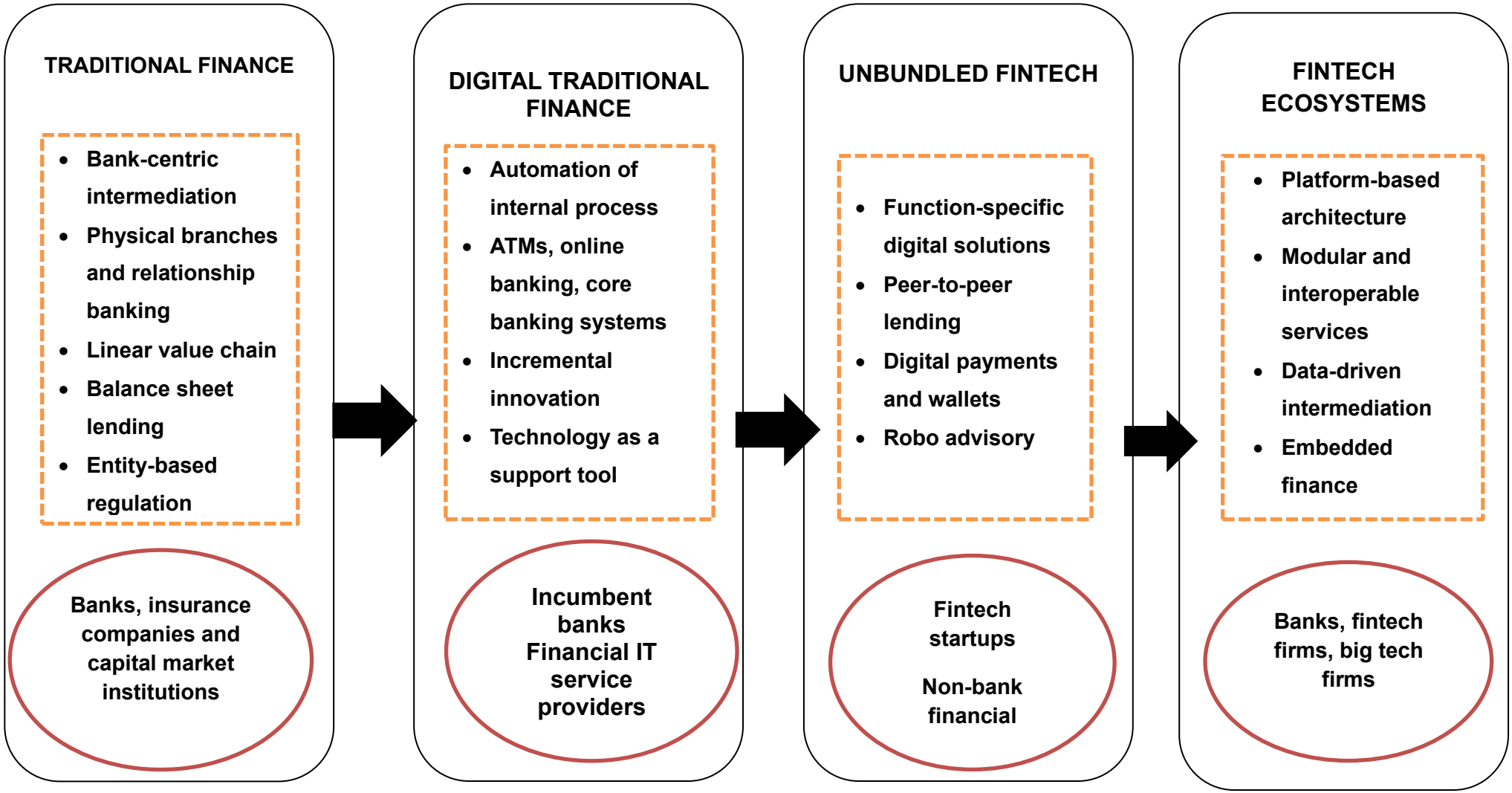
A hallmark of this evolutionary phase is the growing significance of data-driven intermediation. While traditional banking depends on balance-sheet data, collateral, and enduring relationships, fintech ecosystems use real-time information, alternative data sources, and algorithmic decision-making. This transition has improved efficiency and broadened access to financial services, especially for individuals and small enterprises formerly marginalised from formal banking (Demirgüç-Kunt et al., 2018; Ozili, 2018). This has simultaneously prompted new issues about data privacy, algorithmic bias, and the governance of digital platforms (Goldfarb & Tucker, 2019). The increasing involvement of big tech companies signifies an advanced phase in the development of fintech ecosystems. By using extensive user bases, platform synergies, and sophisticated analytics, big tech companies have swiftly penetrated payments, credit, and wealth management, transforming the framework of financial intermediation (Frost et al., 2021). Their participation has expedited innovation and financial inclusion; but it has also raised concerns about market concentration, systemic risk, and the sufficiency of current regulatory frameworks (Financial Stability Board, 2019; International Monetary Fund, 2022).

The transition from traditional finance to fintech ecosystems varies among countries. In developed economies, fintech ecosystems often leverage established financial infrastructure and prioritise efficiency and competitiveness. Conversely, in emerging and developing economies, fintech ecosystems often replace inadequate old financial institutions and are intimately associated with public digital infrastructure and development-focused policies (Suri & Jack, 2016; Frost et al., 2021). The contextual variations highlight the necessity for an adaptable conceptual framework that accommodates institutional variety.

The transition from traditional finance to fintech ecosystems signifies a movement from hierarchical, institution-focused intermediation to network-oriented, platform-driven financial systems. This change is influenced by technology innovation, regulatory adjustments, and evolving competitive dynamics. Comprehending this history is crucial for evaluating the opportunities and problems inherent in fintech ecosystems, hence establishing the foundation for the conceptual framework presented in the following sections. The figure 1 illustrates the structural transition of financial systems from bank-centric traditional finance to platform-based fintech ecosystems. The evolution reflects a shift from hierarchical intermediation and linear value chains toward network-based, data-driven financial services involving multiple interacting actors.

Regenesys Education
ISSN: 2959-2798

Figure 1: Evolution from traditional finance to fintech ecosystems



From traditional finance to fintech ecosystems: A conceptual review and research agenda, Rane & Patel (2025).

Source: Authors' own conceptualisation based on prior literature.

3. Fintech ecosystems and their fundamental components

Fintech ecosystems signify a sophisticated phase in the progression of digital finance, transitioning from discrete technology advances to integrated, platform-oriented systems of financial service delivery. Utilising ecosystem and platform theory, fintech ecosystems are characterised as digitally facilitated networks of diverse participants that engage through common technological frameworks, data-sharing systems, and regulatory structures to collaboratively generate financial value (Moore, 1993; Lee & Shin, 2018; Jacobides et al., 2018). This ecosystem perspective markedly differs from traditional finance, which is defined by hierarchical intermediation and firm-centric value chains.

3.1 Core components of fintech ecosystems

The architecture and operation of fintech ecosystems are influenced by multiple interrelated elements.

i) Actor

Fintech ecosystems comprise a varied array of participants, including established financial institutions, fintech startups, big tech companies, technological service providers, regulators, and end consumers. Established institutions provide regulatory experience, trust, and financial resources, whereas fintech companies offer agility and innovation. big tech companies use platform synergies and extensive data libraries to swiftly expand financial services (Frost et al., 2021). The interplay among these entities is frequently defined by co-opetition, when competition and collaboration coexist (Brandenburger & Nalebuff, 1996).

ii) Digital platform and infrastructure

Digital platforms that enable interoperability and flexible service delivery are fundamental to fintech ecosystems. These platforms depend on facilitating technologies such cloud computing, mobile internet, application programming interfaces (APIs), and, progressively, distributed ledger technology. Shared digital infrastructure diminishes transaction costs and allows various service providers to function within a unified technological framework, setting fintech ecosystems apart from vertically integrated financial institutions (Gomber et al., 2017; Arner et al., 2020; BIS, 2021).

iii) Data and Analytics

Data is a fundamental resource in fintech ecosystems. In contrast to conventional finance, which depends on standardised financial statements and collateral assessments, fintech ecosystems leverage real-time and alternative data obtained from digital transactions and user behaviour. Advanced analytics and artificial intelligence provide automated credit scoring, fraud detection, and tailored financial services, improving efficiency and promoting financial inclusion (Goldfarb & Tucker, 2019; Thakor, 2020). Nonetheless, the increasing dependence on data also prompts apprehensions around privacy, data ownership, and algorithmic bias.

iv) Governance and regulation

Governance in fintech ecosystems transcends individual firm compliance to include comprehensive coordination and monitoring across the entire ecosystem. Regulatory strategies have gradually moved from entity-centric to activity-centric and technology-agnostic frameworks, bolstered by mechanisms such as regulatory sandboxes and open banking mandates (Zetzsche et al., 2017; Cornelli et al., 2020). Effective governance is essential for preserving trust, promoting equitable competition, and reducing systemic risk in intricate digital ecosystems.

v) Value creation and outcomes

Value generation in fintech ecosystems results from network effects, complementarities, and ongoing innovation. These ecosystems have shown the capacity to augment financial inclusion, decrease transaction costs, and elevate service quality. Simultaneously, they provide new risks, such as market concentration, operational vulnerabilities, and cybersecurity threats (Demirgüç-Kunt et al., 2018; Financial Stability Board, 2019).

4. Theoretical underpinning of ecosystem-based finance

The rise of fintech ecosystems requires a reassessment of conventional finance and organisational theories. Ecosystem-based finance diverges from firm-centric and hierarchical financial intermediation models, prioritising networks, platforms, complementarities, and data-driven coordination. This section consolidates essential theoretical frameworks that jointly elucidate the structure, dynamics, and ramifications of fintech ecosystems.

4.1 Financial intermediation theory

Traditional financial intermediation theories highlight the function of banks in lowering transaction costs and alleviating information asymmetries between savers and borrowers (Gurley & Shaw, 1960; Allen & Santomero, 1997). These theories elucidate the emergence and persistence of financial intermediaries in contexts marked by uncertainty and imperfect knowledge. In ecosystem-based finance, numerous intermediation functions such as screening, monitoring, and payments are progressively executed by digital platforms and algorithms instead of conventional banks. Recent advancements in intermediation theory acknowledge that technology can redefine the parameters of financial institutions by reducing information and transaction costs, therefore allowing non-bank entities to undertake intermediation functions (Thakor, 2020). Fintech ecosystems signify a partial disintermediation and re-intermediation of financial services, wherein traditional intermediaries coexist with platform-based entities.

4.2 Transaction cost and economies

Transaction cost economics (TCE) is a fundamental perspective for comprehending the transition of organisations from vertically integrated financial institutions to modular fintech ecosystems. According to TCE, corporations internalise activities when market transaction costs surpass internal coordination costs (Williamson, 1985). Improvements in digital technology, standardised interfaces, and APIs have markedly diminished coordinating and contracting expenses, rendering ecosystem-based solutions more efficient than hierarchical integration (Goldfarb & Tucker, 2019). In fintech ecosystems, platforms serve as governance mechanisms that facilitate interactions among various participants, hence diminishing search, negotiation, and enforcement expenses. This opinion elucidates the expansion of outsourcing, collaborations, and open banking frameworks in modern finance (Vives, 2019).

4.3 Information economics and data-driven finance

Information economics offers a crucial theoretical framework for comprehending the significance of data within fintech ecosystems. Conventional finance depends on restricted and frequently outdated information, while ecosystem-based finance uses real-time and alternative data to mitigate information asymmetries (Stiglitz & Weiss, 1981; Goldfarb & Tucker, 2019). The incorporation of artificial intelligence and machine learning augments prediction capacities while simultaneously presenting problems about transparency and

equity. These issues highlight the necessity of expanding information economics to encompass algorithmic decision-making and data governance in fintech ecosystems (Thakor, 2020).

5. Conceptual framework and research agenda

This section proposes an integrative conceptual framework and outlines a research agenda to guide future scholarly inquiry, building on the evolution from traditional finance to fintech ecosystems (Section 2), the delineation of ecosystem components (Section 3), and the theoretical foundations of ecosystem-based finance (Section 4). The framework defines fintech ecosystems as multi-actor, platform-oriented systems where value creation and risk arise from the interplay of technology, data, governance, and institutional context.

5.1 Conceptual framework for financial technology ecosystems

The suggested paradigm situates fintech ecosystems as the focal point of study, highlighting four interconnected dimensions: stakeholders, digital infrastructure, data and analytics, and governance mechanisms. These variables interact within a comprehensive institutional and regulatory framework to influence ecosystem outcomes.

First, participants comprise established financial institutions, fintech enterprises, big tech corporations, regulatory bodies, and end users. Utilising ecosystem and platform theory, the framework acknowledges that ecosystem performance relies not on the supremacy of a singular entity but on the complementarities and coordination among actors (Adner, 2017; Jacobides et al., 2018). Co-opetition among stakeholders affects innovation intensity, market structure, and access to financial services.

Second, digital infrastructure and platforms constitute the technological foundation of the ecosystem. APIs, cloud computing, mobile technologies, and payment infrastructure facilitate interoperability and modularity, hence diminishing transaction costs and promoting scalable service delivery (Gomber et al., 2017; BIS, 2021). Platform economics indicates that network effects and multi-sided interactions enhance both the advantages and hazards linked to ecosystem growth (Rochet & Tirole, 2003).

Third, data and analytics serve as a vital resource that distinguishes ecosystem-based finance from conventional intermediation. Real-time and alternative data, integrated with artificial intelligence, improve screening, monitoring, and customisation, thus transforming information asymmetries (Goldfarb & Tucker, 2019; Thakor, 2020). Nevertheless, dependence on data-driven decision-making raises issues pertaining to privacy, algorithmic bias, and market dominance.

Fourth, governance and regulation influence ecosystem dynamics by establishing participation norms, data-sharing standards, and accountability procedures. In alignment with institutional and regulatory theory, the framework highlights activity-based and technology-neutral regulation as essential facilitators of sustainable ecosystem development (Zetzsche et al., 2017; Cornelli et al., 2020).

The four aspects jointly affect ecosystem outcomes, including as efficiency, innovation, financial inclusion, competition, and systemic risk. The approach acknowledges contextual heterogeneity, noting that the structure and effects of fintech ecosystems differ between advanced and emerging economies.

5.2 Research agenda

The suggested framework delineates multiple pathways for further research.

Performers and ecological interactions. Subsequent research may investigate the impact of various actor configurations on ecosystem function. Comparative analysis may investigate the distinctions among bank-led, fintech-led, and big tech-led ecosystems on innovation, inclusivity, and stability. Research may also examine power imbalances and governance issues stemming from the involvement of big tech (Frost et al., 2021).

Infrastructure and platform architecture. Researchers may examine the impact of platform architecture, interoperability standards, and public digital infrastructure on competitiveness and innovation. Cross-country research could evaluate how open banking mandates and real-time payment systems influence ecosystem evolution across various institutional contexts (Arner et al., 2020; BIS, 2021).

Data, algorithms, and trust. A significant research focus pertains to the function of data governance in ecosystem-based finance. Future research may assess the trade-offs between efficiency improvements from alternative data use and the associated hazards concerning privacy, discrimination, and transparency. Experimental and quasi-experimental approaches may elucidate the causal impacts of algorithmic decision-making on credit accessibility and financial results (Goldfarb & Tucker, 2019).

Governance, regulation, and stability. Additional investigation is required to comprehend the impact of regulatory frameworks on ecosystem resilience. Research might evaluate activity-based regulation in contrast to entity-based regulation and analyse their effects on systemic risk, consumer protection, and innovation. The significance of regulatory sandboxes and cross-border regulatory coordination necessitates further examination (Zetzsche et al., 2017; Financial Stability Board, 2019).

Perspectives on development and inclusion. Subsequently, future investigations ought to explore the developmental ramifications of fintech ecosystems, especially in emerging and developing nations. Examining the interplay between ecosystem-based finance, public digital infrastructure, financial inclusion policies, and institutional quality would enhance both academic and policy discussions (Demirgüç-Kunt et al., 2018).

6. Dangers and challenges

The swift growth of fintech ecosystems has produced substantial advantages for efficiency, innovation, and financial inclusion. Nonetheless, these advancements are coupled by systemic vulnerabilities that undermine current regulatory systems. In contrast to conventional finance, which centralises hazards within regulated businesses, fintech ecosystems produce risks via linked platforms, data dependencies, and cross-sector interactions, requiring a reassessment of regulatory strategies.

6.1 Market dominance and competition

A primary issue in fintech ecosystems is the rise of market concentration influenced by network effects, economies of scale, and data control. Platform economics indicates that dominant platforms, especially those managed by big tech companies, can swiftly solidify market power across various financial services (Rochet & Tirole, 2003; Parker et al., 2016). This concentration may diminish competition, restrict innovation among smaller enterprises, and elevate systemic significance. Conventional competition policy instruments, centred on price conduct, may prove inadequate in tackling data-driven and platform-centric dominance (Frost et al., 2021).

6.2 Data governance and consumer safeguarding

Fintech ecosystems depend significantly on real-time and alternative data, which raises issues about privacy, cybersecurity, and algorithmic transparency. Data breaches and non-transparent automated decision-making might erode customer trust and intensify exclusion via biased algorithms (Goldfarb & Tucker, 2019; Thakor, 2020). The multi-actor composition of ecosystems challenges accountability from a regulatory standpoint, since the responsibility for data misuse or discriminatory effects is frequently distributed among several platforms and service providers (Zetzsche et al., 2017).

6.3 Operational and systemic risk

The growing reliance on common digital infrastructure, including cloud service providers and payment systems, engenders operational concentration risk. Disruptions impacting essential infrastructure providers can swiftly disseminate throughout the financial system, exacerbating systemic risk (BIS, 2021). Further, algorithmic credit models may induce procyclicality, exacerbating financial instability during economic recessions (Financial Stability Board, 2019).

6.4 Regulatory deficiencies and transnational obstacles

A continual difficulty for policymakers is the discord between entity-based regulation and ecosystem-based financial operations. Non-bank and big tech entities frequently offer banking-like services without comparable regulatory scrutiny, resulting in chances for regulatory arbitrage (Buchak et al., 2018). Cross-border digital operations exacerbate national

regulatory frameworks, highlighting the necessity for enhanced international collaboration (International Monetary Fund, 2022).

7. Future research agenda

The shift from conventional finance to fintech ecosystems has profoundly transformed financial intermediation, governance, and value generation. Although current research has explored fintech applications, a thorough comprehension of ecosystem-based finance is still lacking. This section delineates essential directions for forthcoming research, highlighting system-level analysis, theoretical integration, and policy significance.

7.1 Structure and dynamics of ecosystems

Subsequent research ought to extend beyond firm-centric assessments to investigate ecosystem frameworks, encompassing actor arrangements, power imbalances, and coordinating strategies. Comparative analyses might examine the distinctions among bank-led, fintech-led, and big tech-led ecosystems regarding innovation outcomes, competitive dynamics, and financial stability (Jacobides et al., 2018; Frost et al., 2021). Longitudinal designs may elucidate the evolution of ecosystems over time and the emergence or fall of dominating actors.

7.2 Platform architecture and digital framework

Additional investigation is required to understand how platform architecture, interoperability standards, and public digital infrastructure influence ecosystem performance. Research may evaluate the effects of open banking, real-time payment systems, and digital identification frameworks on competition and inclusivity across nations (Arner et al., 2020; BIS, 2021). Cross-national panel studies and natural experiments present valuable opportunities to ascertain causal effects.

7.3 Data, algorithms, and ethical finance

The increasing dependence on alternative data and artificial intelligence prompts significant inquiries around data governance, algorithmic bias, and transparency. Future research may investigate the impact of various data-sharing frameworks on credit accessibility, pricing, and customer welfare (Goldfarb & Tucker, 2019; Thakor, 2020). Experimental and audit-based

approaches may yield insights about discriminating outcomes and trust in algorithmic finance.

7.4 Regulation, governance, and systemic risk

Research should investigate the adaptation of regulatory frameworks to ecosystem-based finance. Comparative evaluations of entity-based and activity-based regulation may illuminate their efficacy in reducing systemic risk while fostering innovation (Zetzsche et al., 2017; Cornelli et al., 2020). Furthermore, research may examine the function of regulatory sandboxes, supervisory technology, and international coordination in managing fintech ecosystems (Financial Stability Board, 2019).

7.5 Inclusion, development, and emerging economies

Fintech ecosystems are particularly significant for emerging and developing nations, because they frequently replace inadequate traditional banking institutions. Future study may investigate the interplay between ecosystem-based finance, public digital infrastructure, institutional quality, and developmental outcomes, including financial inclusion and the growth of small enterprises (Demirgüç-Kunt et al., 2018; Suri & Jack, 2016). Micro-level data and mixed-method techniques could enhance comprehension in these circumstances.

7.6 Synthesising theory and methodology

Future studies should ultimately seek to amalgamate findings from financial intermediation theory, platform economics, ecosystem theory, and institutional analysis. Integrating qualitative ecosystem mapping with quantitative causal inference can improve theory development and empirical validity. Integrative techniques are crucial for having a comprehensive understanding of fintech ecosystems.

References

Allen, F., & Santomero, A. M. (1997). The theory of financial intermediation. *Journal of Banking & Finance*, *21*(11–12), 1461–1485. https://doi.org/10.1016/S0378-4266(97)00032-0

Arner, D. W., Barberis, J., & Buckley, R. P. (2015). The evolution of fintech: A new post-crisis paradigm? *Georgetown Journal of International Law*, *47*(4), 1271–1319.

Buchak, G., Matvos, G., Piskorski, T., & Seru, A. (2018). Fintech, regulatory arbitrage, and the rise of shadow banks. *Journal of Financial Economics*, *130*(3), 453–483. https://doi.org/10.1016/j.jfineco.2018.03.011

De Fiore, F. (2024). *Big tech, financial intermediation and the macroeconomy* (Working Paper). Federal Reserve Bank / Boston Fed.

Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). *The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution*. World Bank. https://doi.org/10.1596/978-1-4648-1259-0

Feyen, E., Frost, J., Natarajan, H., & Saal, M. (2021). *Fintech and the digital transformation of financial services* (BIS Bulletin / Working Paper). Bank for International Settlements.

Financial Stability Board. (2019). *Fintech and market structure in financial services: Market developments and potential financial stability implications*. FSB.

Frost, J., Gambacorta, L., Huang, Y., Shin, H. S., & Zbinden, P. (2021). Big tech and the changing structure of financial intermediation. *Economic Policy*, *36*(106), 285–352. https://doi.org/10.1093/epolic/eiaa003

Goldfarb, A., & Tucker, C. (2019). Digital economics. *Journal of Economic Literature*, *57*(1), 3–43. https://doi.org/10.1257/jel.20171452

Gomber, P., Koch, J. A., & Siering, M. (2017). Digital finance and fintech: Current research and future research directions. *Journal of Business Economics*, *87*(5), 537–580. https://doi.org/10.1007/s11573-017-0852-x

Gurley, J. G., & Shaw, E. S. (1960). *Money in a theory of finance*. Brookings Institution.

International Monetary Fund. (2022). *Big tech in financial services: Regulatory approaches and challenges.* IMF Staff Discussion Note.

Lee, I., & Shin, Y. J. (2018). Fintech: Ecosystem, business models, investment decisions, and challenges. *Business Horizons*, *61*(1), 35–46. https://doi.org/10.1016/j.bushor.2017.09.003

Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*, *18*(4), 329–340. https://doi.org/10.1016/j.bir.2017.12.003

Suri, T., & Jack, W. (2016). The long-run poverty and gender impacts of mobile money. *Science, 354*(6317), 1288–1292. https://doi.org/10.1126/science.aah5309

Thakor, A. V. (2020). Fintech and banking: What do we know? *Journal of Financial Intermediation*, *41*, 100833. https://doi.org/10.1016/j.jfi.2019.100833

Vives, X. (2019). Digital disruption in banking. *Annual Review of Financial Economics*, *11*, 243–272. https://doi.org/10.1146/annurev-financial-100719-120854

Zetzsche, D. A., Buckley, R. P., Arner, D. W., & Barberis, J. N. (2017). From fintech to techfin: The regulatory challenges of data-driven finance. *New York University Journal of Law & Business*, *14*(2), 393–446.