



## Theoretical Perspectives on Fintech Adoption, Financial Innovation, and Digital Marketing in Modern Financial Systems

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### Abstract

The rapid diffusion of financial technology (FinTech) has reconfigured the architecture of contemporary financial systems by transforming service delivery models, competitive dynamics, and institutional governance structures. Online platforms, artificial intelligence, mobile payment solutions, and open banking systems have increased the pace of financial innovation and redefined the customer-financial institution and regulatory relationship. In this paper, the integrative theoretical framework is established at a high level, which links fintech adoption, organizational innovation, and systemic digital transformation to an analytic framework at various levels. On the micro level, the process of fintech adoption is described by the interplay of assurance of relation and technological utility. Perceived usefulness and ease of use affect behavioral intention and trust and perceived security reduce the uncertainty that is involved in electronic financial transaction. At the meso level, efficient fintech implementation promotes the operational efficiency, innovativeness, and competitiveness in a strategy that is coordinated with the institutional preparedness and governance systems. Macro-level Fintech is associated with financial inclusion, modernization of infrastructure, and restructuring the market through the reduction of the barriers to entry and competition in platform-based ecosystems. The conceptualization of the analysis is that fintech transformation is a recursive process where the personal adoption is induced to create an organizational innovation that further changes the competitive and regulatory environment. Sustainable digital financial ecosystems therefore require alignment between technological advancement, trust-building strategies, and adaptive regulatory oversight.

**Keywords:** FinTech adoption; Financial innovation; Digital transformation; Trust and security; Financial system modernization

### 1. Introduction

Financial technology (FinTech) has been transforming the manner in which contemporary financial systems are designed and how they function at an extremely high pace. The digital platforms, artificial intelligence, blockchain, big data analytics, mobile banking, and open banking frameworks have transformed the architecture of the design, delivery, and consumption of financial services. FinTech has ceased to be a technological breakthrough in the financial institutions, but a structural transformation with implications to competition, inclusion, regulatory policies and performance of the institution (Kou and Lu, 2025). The integration of digital technologies into the financial ecosystem has increased the pace of innovation, but

also has inverted the traditional banking model, as well as methods of connecting customers.

Critical behavioral perspectives, technology acceptance perspectives have been employed to study in micro level fintech adoption. The studies state that the factors influencing the intention to use digital financial service among people are perceived usefulness, perceived ease of use, trust, perceived risk, and social influence. These indications are signs of the relevance of functional analysis as well as psychological confidence in internet finances. Namely, trust is among the central aspects that can be reduced to reduce the ambiguity of data privacy, threat of cyber attacks, and platform trustworthiness. The same appears in empirical meta-analytic information that suggests that the consideration of security and the process of trust significantly affect the utilization and further utilization of digital financial

services (Neves et al., 2023). Additionally, the enhancement of online communication opportunities and social media platforms has also led to the rise in the customer awareness and the development of attitudes towards mobile banking and fintech solutions, which confirms the increasing overlap in the context of the mixture of fintech adoption and digital marketing effects (Sharma et al., 2022).

Besides the adoption behavior at an individual level, integration of fintech has a huge implication on performance of institutions and strategic position. Successful financial institutions in setting up fintech programs alongside organizational strategy and digital infrastructure abilities are likely to achieve positive change in the efficiency of operations, customer satisfaction performance and innovativeness (Gomber et al., 2018). Fintech implementation enables automation of financial processes, the use of analytics-based decision-making, and more customization of a service. These benefits are however contingent with institutional readiness and regulatory laxity. Improving fintech will increase the degree of operational complexity unless it is properly integrated and managed, which will generate sustainable competitive advantage.

There are also some major effects on the market structure and competition within the financial systems due to the fintech growth. Regulatory change to promote the sharing of data and open banking projects have reduced the barriers of entry by the fintech and technology-based competitors. The availability of more detailed information about customers can help unusual competitors develop new financial products and services that will threaten the authority of the established banking companies (Babina et al., 2025). This is a competitive restructuring that promotes innovation, but places an additional burden on the existing institutions to modernize their digital capacity. Additionally, the fintech evolution field was associated with regulatory arbitrage and the evolution of alternative financial intermediation patterns, including shadow banking patterns (Buchak et al., 2018). These innovations aid in describing the dualism of fintech innovation whereby efficiency gains and competitive advantages are offset by the threat of systemic risks.

Largely, at the macro level, fintech may serve as a driver of digital financial transformation and financial inclusion. The digital identity system, modernization of payment infrastructure, and regulatory framework help to provide bigger access to financial services and incorporate people into economic development (Zetzsche et al., 2017). Onboarding of hitherto unbanked populations of people can be done in a safer way through the use of digital identification procedures, and mobile payment systems reduce transaction costs and further improve financial access. The facts suggest that the levels and scales of fintech adoption and digital transformation are extremely dependent on economic conditions, technology readiness, and regulations (Frost, 2020). Thus, institutional and macroeconomic factors

should also be considered as influential in the diffusion of fintech, albeit not as technological innovation.

With good opportunities entailed, fintech innovation carries both benefits and risks to financial stability. Despite the fact that digital technologies enhance the efficiency of operations and their accessibility to the financial services industry, they also may become the reason of the growing concentration of the market, cybersecurity risks and ineffective regulations (Sant'Anna and Figueiredo, 2024). Innovation promoters and financial institutions ought to therefore create equilibrium between innovation and risk management in order to achieve sustainable digital transformation.

Although the existing literature is very informative on the topic of fintech and institutional innovation adoption, systemic transformation, the mentioned aspects are usually examined separately (Vives, 2019). The literature on behavioral research is focused on user adoption determinants, performance implication, and organizational research, and macro-level research, which focuses on competition and financial inclusiveness. However, very few studies incorporate these opinions into a unified analysis framework. The transformation of fintech is to be conceptualized along the multilevel level, making the individual adoption behavior connected to the institutional transformation of innovation results and more macro-level competition and systemical transformations.

In this direction, the paper provides a cumulative theoretical approach to the problem of fintech adoption, financial innovation, and digital transformation to the modern financial systems. The research paper aims to provide a deep understanding of how fintech can change the financial ecosystem at different levels by integrating behavioral determinants, organizational enablers, competitive forces, and mechanisms of systemic transformation. It is an integrative line of approach that is able to make the future debate on digital finance by linking theory on micro-level adoption to macro-level structural change and, consequently, to present an overall image of how financial markets are being modernized by fintech. The research objectives are:

1. To identify the key determinants of FinTech adoption in digital financial environments.
2. To examine the organizational impact of FinTech integration on innovation and performance.
3. To assess the systemic effects of FinTech on financial inclusion and market transformation

## **2. Research Methodology**

### **2.1 Research Design**

The current paper used theoretical-based case analysis research design in order to examine the phenomenon of fintech adoption, financial innovation, and digital transformation of the modern financial systems. The qualitative method was allowed for deeper explanation of behavioral, organizational, and structural aspects of the transformation in fintech, which provided the possibility to understand it contextually and

interpretively rather than through quantitative measurement. The qualitative method was adequate since the fintech transformation was associated with behavioral, organizational, and structural transformation, which can be followed and assessed only through contextual and explanatory interpretation instead of quantitative measurement.

This study combined three analytical levels, namely; individual adoption behavior, organizational innovation and performance and system level financial transformation. The synthesis of the adoption theory, digital transformation models and literature on competition leads to a consistent conceptual insight into the role of fintech-driven change in contemporary financial systems.

**2.2 Data Sources**

The research relied on secondary academic literature to keep the level of theoretical complexity, consistency of the analyses. The sources consist of peer-reviewed journal articles and academic working papers on the subject of fintech adoption, digital financial transformation, and bankruptcy in banking services.

Firmansyah et al. (2022) present the framework of behavioral factors that influence fintech adoption in the form of synthesis of factors impacting fintech adoption and include perceived usefulness, perceived ease of use, trust, perceived risk, and social influence. The systematic review they provide makes the micro-level determinants that influence the individual decisions to make. Albuainain and Ashby (2025) went further and determined enablers and obstacles to adoption of fintech within an organization and have linked the adoption with performance of a bank. Their findings served to understand fintech both as a consumer-level behavior, as well as a strategic driver, which results in the competitiveness of institutions. Arner et al. (2018) offer a macro-level approach to the digital financial transformation, and the role of the digital identity systems, system of payments, the modernization of regulations and financial inclusion are considered. This perception favours the systems perspective of the research. The article by Doerr et al. (2024) provides a comprehensive literature review of the issue of fintech and competition in the banking services. Their analysis has also identified the influence of fintech on the structure of the market, competitive forces and models of service provision, which makes the research strengthen the financial innovation aspect.

When combined together, these four sources will establish a rational theoretical base that enables one to develop a comprehensive analysis at the levels of behavioral, organizational and systemic fintech transformation.

**2.3 Case Selection Criteria**

The sample size was provided randomly by the selection of cases on theoretical relevance and contextual agreeableness. To begin with, cases was dealt with determinants of fintech adoption on a personal or institutional level, making it consistent with accepted adoption models. Second, there were examples of organizational enablers or barriers that determine fintech implementation and performance outcomes. Third, the chosen cases were digitization of the system level such as modernization of the infrastructure or financial inclusion programs. Fourth, the presence of competitive restructuring or innovation in the banking markets is evidenced by cases.

These requirements make sure that the chosen cases reflect collectively behavioral, organizational, and systemic dimensions of transformation by fintech.

**2.4 Data Analysis Technique**

The research applied the qualitative thematic and comparative study. First, the most important constructs was to do with the adoption of fintech, innovation, and competition were identified and coded. The cases were then studied separately to get a feel of their dynamics of transformation. The cross-case comparison was then made aiming at determining patterns, similarities and differences. Pattern matching, and explanation-building methods were used to combine findings on different levels of analysis. This method allows building up of a wide-ranging conceptualized description connecting fintech adoption with financial innovation and systemic transformation.

**3. Results**

**3.1 FinTech Adoption Determinants**

The results show that key behavioral determinants are the main factors that affect the adoption of fintech. As the Table 1 presents, the perceived usefulness and perceived ease of use have a positive impact on the adoption intention by decreasing technological complexity and increasing perceived benefits. There is a positive significant influence of trust that diminishes the uncertainty of online financial services. Perceived risk on the other hand has a negative impact on adoption because it brings about reluctance. Social influence also supports the intention of adoptions since it influences the user behavior in digitally connected settings.

In general, the findings indicate that a functional appraisal and a psychological system of assurance are combined to foster the use of financial technologies.

**Table 1. FinTech Adoption Determinants**

Determinant	Influence on Adoption	Observed Effect
Perceived Usefulness	Enhances intention	Positive
Perceived Ease of Use	Reduces complexity	Positive
Trust	Reduces uncertainty	Strong Positive
Perceived Risk	Increases hesitation	Negative

Social Influence	Encourages adoption	Positive
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### 3.2 Organizational Enablers and Performance Outcomes

The findings also indicate that the adoption of fintech is associated with organizational benefits in case the institutional facilitating conditions are in place. Digital infrastructure preparedness increases operational effectiveness as demonstrated in Table 2, whereas strategic alignment increases competitive positioning.

Displayed with regulatory support decreases compliance-related friction and system integration enhances reporting transparency and quality of decision making.

The results however show that adoption does not necessarily lead to performance increase. There should be institutional preparedness and strategy alignment to transform adoption into quantifiable innovation results.

**Table 2. Organizational Enablers and Outcomes**

Organizational Factor	Impact Area	Performance Effect
Digital Infrastructure	Operations	Efficiency gains
Strategic Alignment	Market position	Competitive advantage
Regulatory Support	Compliance	Reduced friction
System Integration	Reporting	Transparency improvement

### 3.3 System-Level Digital Financial Transformation

On the systemic level, the introduction of fintech is a part of the general financial modernization. As presented in Table 3, digital identity systems help to conduct authentication and financial inclusion, whereas payment infrastructure increases the efficiency of the market. Technological progress and financial stability

can be achieved through regulatory innovation. Also, ecosystem development promotes structural change in financial institutions. Such results show that the level of transformation on fintech is not in isolation at the firm level but a part of a larger digital financial ecosystem.

**Table 3. System-Level Transformation Dimensions**

Dimension	Key Mechanism	System Outcome
Digital Identity Systems	Electronic verification	Expanded inclusion
Payment Infrastructure	Mobile and digital platforms	Market efficiency
Regulatory Innovation	Adaptive supervision	Stability–innovation balance
Digital Ecosystem Growth	Institutional modernization	Structural transformation

### 3.4 Competitive Dynamics and Financial Innovation

The analysis also indicates that there are considerable shifts in the competition in banking markets. Table 4 demonstrates that entering the fintech market has raised competition, and platform-based financial services are widened by having technology-driven firms participate. Diversification of services is the ability to increase

customer value and cost efficiency is possible by means of automation and restructuring operations. The findings suggest that there is a shift in the old form of banking to new models that are ecosystem-oriented and digitally incorporated financial frameworks as shown in Table 4.

**Table 4. Competitive and Innovation Outcomes**

Competitive Change	Market Effect	Institutional Response
FinTech Market Entry	Increased competition	Strategic partnerships
BigTech Participation	Platform expansion	Digital transformation
Service Diversification	Customer value creation	Innovation investment
Automation & Analytics	Cost efficiency	Operational restructuring

### 3.5 Integrated Multilevel Findings

The compounded findings indicate that fintech transformation works at linked levels. Individual-level adoption drivers, as summarized in Table 5, are the drivers that affect organizational innovation, which in turn adds to systemic modernization and competitive restructuring. The cross-level relationship is a dynamic reinforcing relationship.

The high behavioral adoption and institutional preparedness can promote faster innovation and structural change, and the poor infrastructure or incorrect policies restrain the systemic effect. Table 5 shows this multilevel integration very well.

**Table 5. Multilevel Integration Framework**

Level of Analysis	Core Drivers	Primary Outcomes
Individual	Trust, usefulness, risk perception	Adoption intention
Organizational	Infrastructure, strategic alignment	Innovation and performance

System	Digital infrastructure, regulation	Financial inclusion and modernization
Market	FinTech and BigTech competition	Competitive restructuring

#### 4. Discussion

The adoption of FinTech as an element of contemporary finance is a complex interaction between the technological opportunity and the psychological trust in the technology and digital interaction mechanisms. The users are treated to services in online financial services where sensitive financial and personal information are processed, trust and a perceived security are some of the major considerations in the adoption process. Trust may be regarded as a support element which lowers the uncertainty degree and results into trustfulness in web dealings. The readiness to employ and keep fintech services is significantly increased when the users believe that the financial platforms are secure, reachable, and institutionally well (Jafri et al., 2024). This brings out the point of technology innovation as not sufficient; the sense of security and institutional trustworthiness cannot be overlooked in the description of the digital financial activity. The fintech adoption can be better understood by combining the knowledge of technology acceptance and trust-based models. The classical patterns such as the UTAUT2 dwell on the predictors of behavioral intention such as the performance expectancy, the effort expectancy, the facilitating conditions as well as the social influence. However, the psychological implication of financial risk exposure and data privacy has other psychological consequences in fintech settings. The integration of the technology acceptance constructs and the trust theory can lead to the greater number of the explanations since it is necessary to note that adoption is a functional and relational process (Amnas et al., 2023). In the case under consideration, not only is trust directly related to adoption intention, but it also mediates between ease of use and perceived usefulness. The users may also simply be aware that fintech services have a functional value, but they are unable to embrace them due to lack of confidence in the provider or the system. Adoption is further complicated by the notions of risk. An example of digital payment technology that may slow or prevent risk perception acceptance include contactless and mobile payment system. The attitude to adopt is lower in instances where the users perceive a high financial, privacy or performance risk. Conversely, the high trust perceptions facilitate in easing the risk concerns, and they enhance trust in online transactions (Alrawad et al., 2023). The trust and risk two-fold interaction during adoption of fintech is the dynamic of the relationship. Risk is not an independent running barrier, which exists in relation with machineries of trust. As digital financial ecosystems increase, institutions, thus, must prioritize the use of cybersecurity activities, regulatory disclosure and consumer education to address the perceived vulnerability. Further than adoption, further utilization of fintech will depend on customer engagement in digital platform. Engagement shows how much the customers and the fintech service

providers are interacting cognitively, emotionally, and behaviorally. The long-term customer loyalty and commitment to platform is strengthened through brand engagement in online financial services (Barbu et al., 2025). The activity is not merely transactional effectiveness, but also entails the quality of user experience, interactive communication, personalization, and the perceived value co-creation. Effective digital engagements between fintech companies privilege them to retain the customers in low switching costs competitive markets. The concept of customer engagement in digital landscapes is more of a generalized concept that contextualizes fintech transformation. The communication in the digital age is defined by the immersive technologies, interactive interfaces, and constant communication via different digital touchpoints. No longer are customers mere consumers of financial services in the digital ecosystems (Rasool et al., 2020). The latter may include app-based financial management tools, AI-based advisory tools, gamified savings tools, and social interactions in its fintech environment. These are complementary engagement strategies to trust and usability determinants because it builds emotional attachment and develops a habit of use.

The system of trust, perception of risk, technology acceptance, and involvement mechanisms suggests that the fintech use process may be regarded as a stratified one. At the fundamental level, trust and security perception may enable users to address the uncertainty issues. At the functional level, the first trial and use is provoked by ease of use and perceived usefulness. Engagement mechanisms will provide the possibility to maintain the interaction and loyalty at the relational level. This trend implies that the transformation of fintech is not an adoption process but a relationship process in the digital financial systems.

Theoretically speaking, the observations given then leave no doubt that there is need to transcend the explanatory frameworks that exist independently. Behavioral acceptance model and relational trust theories and digital engagement lenses are a positive addition to the field of fintech adoption studies. Such a combination is characteristic of the multidimensionality of financial technology where there are economic, technological, psychological, and social forces in action. The interaction of trust/engagement also suggests that the fintech platforms can be used as technological systems and relationship brands.

The managers should adopt a holistic approach between the fintech providers that would balance between trust-building and engagement programs and technological innovation. They ought to invest more on cybersecurity, openness, and regulation to improve the perceived safety. Meanwhile, individualization, two-way digital marketing strategy, and customer-focused design may be used to enhance activity and retention of the customer in the long-term. The financial institutions

that align security assurance with significant digital experiences are in a better chance to be capable of achieving sustainable competitive advantage. Interactional and correlational behavioural patterns have an effect on the use and interaction of fintech in modern financial systems. The less risk is through trust, the first use is through technology acceptance and continued use is through engagement. The knowledge of such an integrated order will provide a complete understanding of the fintech change and assist in developing a more efficient theoretical and practical solution in terms of the digital financial change.

## 5. Conclusion

FinTech has turned out to be rather a disruptive event altering the existing financial frameworks using technological innovation, competitive restructuring, and digitalization. The fintech services are embraced not only based on the views of usefulness and convenience, but also based on trust and security and perceived risk. Trust is a fundamental operational mechanism that is useful in reducing uncertainty levels and improving the interaction between the users of digital financial systems where the sensitivity of information and financial transactions is centralized. There is no high trust and guaranteed security, which only render the technological functionality unhelpful to maintain adoption. However, the performance does not always manifest in the case of using technologies. Good governance, systems integration, and customer-based design are the required attributes of institutions in order to realise fintech capabilities into quantifiable competitive advantage. On the systemic level, fintech concentrates and accelerates financial inclusion process itself, modernizes payment systems, and enhances competition in the market. The open banking ecosystems and digital platforms increase the access to the industry encouraging innovation and simultaneously making traditional institutions more competitive. It is a two sided dynamic that offers the possibility of growth and has regulatory and stability concerns. Overall, the transformation of fintech is a complicated process that consists of behavioral adoption, the capability within an organization, and modernization of its structural aspects. The alignment of the technological advances, the willingness of organizations, the mechanisms of trust, and the regulatory regulations are necessary to create balanced financial development and inclusive one to develop sustainable digital financial ecosystems.

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