KMAN PUBLISHING INSTITUTE

Article history:
Received 02 September 2023
Revised 20 October 2023
Accepted 25 November 2023
Published online 01 January 2024

Journal of Resource Management and Decision Engineering

Volume 3, Issue 1, pp 48-60

Investment Model in Financial Systems with a FinTech Approach

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A r t i c l e I n f o

Article type:
Original Research

How to cite this article:
kalaei, H., Abouei Mehrizi, S., Moinzad, H. & Minouei, M. (2024). Investment Model in Financial Systems with a FinTech Approach. *Journal of Resource Management and Decision Engineering*, *4*(2), 1-14.
https://doi.org/10.61838/kman.jrmde.4.2.5

A B S T R A C T

The purpose of this study is to analyze and design an investment model in financial systems using a FinTech-oriented approach, employing the meta-synthesis method to integrate existing research findings in this field. This method enables researchers to thoroughly examine previous articles and studies to identify and synthesize the dimensions and components of strategic models for investment development. In this research, after identifying and selecting credible articles from scientific databases and journals, the data were analyzed through document analysis and the meta-synthesis process. The findings indicate that strategic investment models in FinTech should focus on utilizing emerging technologies such as artificial intelligence, blockchain, and digital payments in order to effectively manage financial and technological risks inherent in this industry. Furthermore, one of the significant results of this study is the emphasis on training and empowering FinTech managers in financial risk analysis and the adoption of optimal investment strategies. The research also highlights that international cooperation in scientific and technological domains can lead to knowledge exchange and the strengthening of technical infrastructures within the FinTech industry. Ultimately, this study can serve as a theoretical foundation for the design and implementation of strategic models in emerging industries based on information technology—particularly in the FinTech sector—and assist decision-makers and investors in this industry in leveraging optimal investment opportunities.

Keywords: *Investment; Financial Systems; FinTech Approach*

1. Introduction

The integration of financial technology (FinTech) into global financial systems has transformed the landscape of investment, banking, and financial management over the past decade. As a convergence of finance and digital innovation, FinTech encompasses a wide range of technologies such as artificial intelligence, blockchain, big data analytics, and open banking that collectively aim to optimize the efficiency, accessibility, and inclusivity of financial services (Lee & Shin, 2018). The continuous expansion of FinTech ecosystems has reshaped traditional financial institutions' approaches to investment decisions, corporate financing, and risk management,

fostering new opportunities for investors and institutions alike (Priyadarshi et al., 2024). As financial markets increasingly rely on digital platforms, the intersection between technological innovation and investment behavior has become a key research focus (Mohammed et al., 2024).

FinTech has evolved beyond a supportive role in financial intermediation to become a fundamental driver of strategic investment and innovation in banking and finance (Horn et al., 2020). The rise of mobile-based financial applications and blockchain-enabled solutions has enabled both institutional and retail investors to engage in data-driven decision-making and diversify their portfolios (Gambacorta et al., 2023). In particular, FinTech-based investment platforms have democratized access to capital markets, allowing users to make informed decisions through algorithmic recommendations and real-time analytics (Priyadarshi et al., 2024). These developments highlight how FinTech not only enhances efficiency but also alters investor psychology and risk-taking behavior (Krische, 2019).

Moreover, the digital transformation of banking institutions has redefined their investment and operational frameworks (Li et al., 2023). Traditional banks now increasingly collaborate with or invest in FinTech startups to gain access to innovative technologies and maintain competitiveness (Hornuf et al., 2021). This partnership dynamic demonstrates the convergence of institutional capital and entrepreneurial innovation (Bellardini et al., 2022). In advanced economies, FinTech investments by banks have been found to significantly enhance financial performance by improving credit allocation, payment systems, and risk management practices (Carlini et al., 2022). At the same time, these partnerships demand robust governance structures and new investment models capable of integrating financial and technological parameters (Kou et al., 2021).

Globally, the FinTech sector has displayed an impressive capacity to stimulate financial inclusion and transparency (Langley & Leyshon, 2021). Through decentralized platforms, peer-to-peer lending, and blockchain-based applications, FinTech disrupts traditional intermediation models while promoting a more open and competitive marketplace (Farrow, 2020). The emergence of decentralized finance (DeFi) and non-fungible tokens (NFTs) has created new investment channels that redefine the concept of digital assets (Jin, 2024). These technologies provide not only speculative opportunities but also novel instruments for financial innovation, particularly within emerging markets where access to conventional banking remains limited (Hosseini, 2021).

In developing economies, FinTech contributes to bridging structural gaps in capital allocation and credit accessibility (Mashhadizadeh et al., 2024). The integration of artificial intelligence and risk management frameworks has improved financial resilience and investment security in these markets (Hassan & Sadri, 2024). FinTech applications facilitate data-driven lending decisions, automated portfolio adjustments, and predictive modeling, thus strengthening institutional capacity for risk analysis (Jahantiq & Faraji, 2024). For instance, the application of AI-based credit evaluation systems in Tehran Stock Exchange banks has led to more effective risk prediction and portfolio diversification (Hassan & Sadri, 2024). Similarly, eco-friendly investment platforms driven by AI and blockchain have advanced sustainable finance practices (Mohammed et al., 2024).

Recent empirical evidence indicates that FinTech also contributes significantly to enhancing corporate investment efficiency. Studies conducted in China reveal that FinTech adoption improves transparency, optimizes capital allocation, and reduces information asymmetry between investors and firms (Huang, 2022; Lv & Xiong, 2022). This efficiency, however, is contingent on institutional readiness, digital infrastructure, and regulatory frameworks (Varma et al., 2022). In this regard, FinTech acts as both an enabler and a disruptor within the financial ecosystem—it promotes competitiveness but also challenges established norms of investment governance (Langley & Leyshon, 2021).

Financial institutions' strategic responses to the FinTech revolution have varied across jurisdictions. In European markets, hybrid decision-making models incorporating fuzzy logic and multicriteria analysis have been used to guide FinTech investment decisions in banks (Kou et al., 2021). In emerging markets, however, adoption is often constrained by regulatory uncertainty, technological fragmentation, and cybersecurity concerns (Thakor, 2020). As FinTech ecosystems expand, issues such as data privacy, digital fraud, and the ethical use of artificial intelligence have become central to policy discourse (Yoon & Jun, 2019). Furthermore, the risk of reputational damage due to security breaches or algorithmic bias remains a pressing concern for investors and regulators (Horn et al., 2020).

The role of blockchain in ensuring transparency and accountability in financial transactions has drawn increasing attention (Wang et al., 2019). Blockchain-based platforms enhance traceability and trust, providing robust foundations for open banking and cross-border payment systems

(Farrow, 2020). These systems also facilitate the integration of environmental, social, and governance (ESG) criteria into investment models, aligning FinTech innovation with sustainable finance objectives (Chueca Vergara & Ferruz Agudo, 2021). The synergy between FinTech and sustainability underscores a growing academic and practical interest in using technology to support responsible investing and environmental accountability (Mohammed et al., 2024).

At the same time, FinTech presents multifaceted risks related to regulation, cyber threats, and operational dependencies (Shabbir & Wisdom, 2020). The lack of standardized regulatory frameworks across jurisdictions complicates compliance and increases systemic vulnerability (Sheng, 2020). Operational risks, including integration failures between traditional banks and FinTech startups, can impede digital transformation initiatives (Horn et al., 2020). Scholars have therefore emphasized the necessity for adaptive legal frameworks that balance innovation and financial stability (Ya, 2020). The success of open banking initiatives, for example, depends heavily on trust, cybersecurity readiness, and effective data governance (Lynn et al., 2020).

From an investment perspective, FinTech also reshapes capital markets through algorithmic trading, robo-advisory services, and automated portfolio management (Vanderlinden et al., 2019). These tools expand accessibility while reducing human error, though they may also amplify systemic risks during market volatility (Krische, 2019). As financial services become more digitized, investors must adapt to increasingly complex data environments that require sophisticated analytical capabilities (Li et al., 2023). The interplay between financial literacy, technology adoption, and behavioral finance in this context has emerged as a crucial determinant of successful investment outcomes (Butt & Khan, 2019).

A significant aspect of FinTech's global expansion is its capacity to integrate sustainability and ethics into investment practices (Chueca Vergara & Ferruz Agudo, 2021). Digital finance platforms now facilitate the tracking of environmental performance metrics and encourage investments that support green growth (Jahantiq & Faraji, 2024). In this regard, FinTech acts as an accelerator of sustainable economic transformation, complementing national and international goals related to green investment (Mohammed et al., 2024). As such, the evolution of FinTech cannot be understood solely through its technological dimension; it represents a socio-economic paradigm shift toward more transparent, inclusive, and responsible financial systems (Langley & Leyshon, 2021).

In terms of investment behavior, empirical analyses reveal that FinTech tools significantly influence decision-making by increasing investor confidence and access to information (Priyadarshi et al., 2024). Mobile applications and AI-driven dashboards have made financial information more comprehensible, reducing cognitive barriers and expanding participation among younger and less-experienced investors (Mashhadizadeh et al., 2024). Moreover, digital payment systems and micro-investment platforms encourage savings and wealth accumulation, especially in emerging markets (Vanderlinden et al., 2019). However, despite these positive developments, challenges remain in ensuring digital inclusion, addressing privacy concerns, and preventing algorithmic discrimination (Hosseini, 2021).

Given these dynamics, it is evident that FinTech-driven investment systems represent a transformative force within modern finance, necessitating the design of new models that integrate technology, governance, and investor behavior. Banks, startups, and investors alike must navigate a rapidly evolving environment shaped by innovation, competition, and risk. As research continues to expand in this domain, the need for a comprehensive investment model tailored to financial systems under the FinTech approach has become increasingly critical (Mahdavi & Jolaei, 2019; Mention, 2019; Mirazi, 2019).

The aim of this study is to analyze and design a strategic investment model for financial systems based on the FinTech approach through a meta-synthesis of existing qualitative research findings.

2. Methods and Materials

The present study, due to its effort to propose a new model in the field of investment development models in financial systems with a FinTech approach and to provide a new perspective, is of an exploratory–descriptive nature. This is because the proposed model has been developed systematically through the description of realities, models, beliefs, attitudes, and existing processes in the field of investment development, and it has been refined and completed through an extensive empirical investigation based on the insights and mental models of experts.

In the qualitative phase, the meta-synthesis approach was employed. Among qualitative methods for theory development, meta-synthesis is considered one of the most

appropriate. The reason for selecting this combined method lies in its simultaneous use of explicit knowledge published in executive and scientific documents (during the qualitative analysis stage) and the implicit knowledge acquired from practitioners and professionals in the field. The design and development of the theoretical structure of indicators require an integrated and inductive approach. In this regard, meta-synthesis, through in-depth internal and external examination, provides an inductive method for identifying indicators and dimensions.

This research utilized the Meta-Synthesis method to integrate qualitative research findings and to achieve a comprehensive and unified model. Meta-synthesis entails a thorough and detailed review through which the researcher carefully examines existing studies, identifies, and integrates the main concepts and keywords to present a broader and more holistic picture of the phenomenon under investigation. This method, similar to the systematic review approach, ensures that the synthesized results are greater than the sum of their parts.

In this study, the main objective was to design a strategic investment development model for financial industries based on FinTech, which is a novel and specialized topic. The researchers, using the meta-synthesis method, integrated various factors and components that had been previously examined in the literature. To achieve this objective, the seven-step approach of Sandelowski and Barroso (2006) was applied.

3. Findings and Results

In this section, the Critical Appraisal Skills Programme (CASP) method was used to qualitatively assess the final selected articles. In the CASP method, ten key questions must be answered. The responses to these questions determine the accuracy, validity, and significance of the qualitative studies under review. These questions refer to the following aspects:

1. Research objectives;
2. Timeliness;
3. Research design;
4. Sampling method;
5. Data collection;
6. Reflexivity;
7. Ethical considerations;
8. Accuracy of data analysis;
9. Clarity of findings;
10. Research value.

The assessment of the above items was based on the following criteria:

- The maximum score for each question is 5.
- The maximum score for each article is 50.
- Any article scoring below 25 points was excluded.

According to the scores obtained, the articles were ranked as follows:

- Excellent (E): 41–50 points
- Very Good (VG): 31–40 points
- Good (G): 21–30 points
- Fair (F): 11–20 points
- Poor (P): 0–10 points

The evaluation results are presented in Table 1 below.

Table 1

Evaluation of Selected Articles Using the CASP Method

Source	Research Objectives	Timeliness	Research Design	Sampling Method	Data Collection	Reflexivity	Ethical Considerations	Accuracy of Data Analysis	Clarity of Findings	Research Value	Total Score	Quality
(Priyadarshi et al., 2024)	2	2	3	4	1	4	5	3	5	4	33	Very Good
(Mohammed et al., 2024)	5	4	3	2	4	5	5	1	1	2	32	Very Good
(Mashhadizadeh et al., 2024)	2	3	1	1	1	5	4	2	5	1	25	Good
(Jin, 2024)	5	1	5	4	1	3	5	4	4	3	35	Very Good
(Jahantiq & Faraji, 2024)	5	3	1	1	1	4	3	5	5	2	30	Good

(Hassan & Sadri, 2024)	2	5	1	5	4	1	1	3	4	5	31	Very Good
(Li et al., 2023)	5	2	5	4	3	2	4	5	2	5	37	Very Good
(Gambacorta et al., 2023)	1	1	4	2	5	3	4	5	2	5	32	Very Good
(Varma et al., 2022)	4	4	4	5	1	3	3	5	5	1	35	Very Good
(Lv & Xiong, 2022)	3	3	1	3	1	3	1	2	4	5	26	Good
(Huang, 2022)	2	3	5	5	1	5	5	1	1	5	33	Very Good
(Bellardini et al., 2022)	4	1	4	2	1	3	1	4	2	5	27	Good
(Kou et al., 2021)	5	4	2	4	1	4	5	2	2	4	33	Very Good
(Hosseini, 2021)	1	4	1	2	5	4	3	1	2	5	28	Good
(Horn et al., 2020)	5	4	3	4	3	2	1	3	3	3	31	Very Good
(Frankel, 2020)	2	4	4	2	5	2	2	2	4	5	32	Very Good
(Yoon & Jun, 2019)	2	4	2	5	2	1	3	3	1	3	26	Good
(Vanderlinden et al., 2019)	4	5	1	3	3	5	1	4	2	2	30	Good
(Butt & Khan, 2019)	5	3	3	5	2	4	1	3	2	2	30	Good
(Lee & Shin, 2018)	5	3	1	2	4	4	5	3	5	1	33	Very Good
(Carlini et al., 2022)	5	3	4	3	4	5	4	4	5	5	42	Excellent
(Langley & Leyshon, 2021)	3	2	4	2	3	4	3	4	4	4	33	Very Good
(Hornuf et al., 2021)	4	5	4	4	5	4	4	5	3	5	43	Excellent
(Chueca Vergara & Ferruz Agudo, 2021)	5	5	5	5	5	5	5	5	5	5	50	Excellent
(Ya, 2020)	3	2	3	3	2	2	3	2	4	3	27	Good
(Thakor, 2020)	4	3	3	3	3	3	4	4	3	5	35	Very Good
(Sheng, 2020)	3	2	1	4	4	2	3	1	2	3	25	Good
(Shabbir & Wisdom, 2020)	4	3	3	3	4	3	4	4	3	3	34	Very Good
(Lynn et al., 2020)	2	2	1	2	3	4	4	3	2	2	25	Good
(Liu et al., 2020)	4	4	4	4	4	3	4	4	5	5	41	Excellent
(Imerman & Fabozzi, 2020)	5	1	3	3	3	5	4	5	3	3	35	Very Good
(Farrow, 2020)	2	1	4	1	1	4	5	4	2	5	29	Good
(Wang et al., 2019)	3	2	1	3	3	3	4	3	4	1	27	Good
(Mirazi, 2019)	4	1	3	5	3	1	2	1	5	2	27	Good
(Mention, 2019)	5	2	3	5	4	5	1	2	1	2	30	Good
(Mahdavi & Jolaei, 2019)	3	3	2	3	4	4	3	4	2	4	32	Very Good
(Krische, 2019)	1	3	3	2	3	2	3	3	4	3	27	Good

After evaluating the articles using the CASP method, it was determined that 17 articles were of Good quality, 17 articles were Very Good, and 5 articles were rated as Excellent.

The findings from the meta-synthesis, formulated as perceived contents of the investment process in financial systems with a FinTech approach, are presented in the following table, which lays the groundwork for the study's model. The results were categorized and analyzed using open and axial coding techniques.

Table 2

Codes Extracted from the Meta-Synthesis

Subcategory (Axial Coding)	Characteristic (Open Coding)	Source	Notes
FinTech conditions at the seed/early investment stage	Existence of a prototype of the product or service	(Gambacorta et al., 2023; Hassan & Sadri, 2024; Jahantiq & Faraji, 2024; Jin, 2024; Kou et al., 2021; Li et al., 2023; Lv & Xiong, 2022; Priyadarshi et al., 2024; Varma et al., 2022)	These are conditions in which the FinTech startup has completed its product or service, launched it to the market, and received positive feedback from customers. At this post-accelerator stage in the startup's life cycle, the venture exhibits product–market fit, evidenced by users recommending the FinTech product or service to others, and the startup gradually building a loyal customer base.
	Product introduction in financial markets		
	Receiving appropriate feedback from customers and stakeholders		
	Customers in financial industries recommending the service to one another		
Startup management	Track record and experience in the relevant financial domain	(Frankel, 2020; Horn et al., 2020; Hornuf et al., 2021; Mahdavi & Jolaei, 2019)	The two axial subcategories—startup management and attributes of the innovative product or service that sensibly reflect FinTech revenues and costs in financial industries—form the basis for venture capitalists' valuation of startups; in this respect, FinTech startups in financial industries do not differ from other startups.
	Required managerial experiences and expertise within the team		
Innovative product/service	Product or service completeness (market-ready)	(Jin, 2024; Kou et al., 2021; Li et al., 2023; Mashhadizadeh et al., 2024; Varma et al., 2022)	
	Uniqueness and differentiation from competing products/services		
Market	Strong market reception for the product or service		
	Scalability of the product or service		
	Three- to five-year financial plan		
Benefits	Adding and extending features to existing FinTech services	(Bellardini et al., 2022; Carlini et al., 2022)	Financial industries, as strategic acquirers of FinTech startups, are highly salient to venture capitalists. These perspectives inform investors about the considerations buyers apply when acquiring FinTech firms. The concepts in this subcategory, in addition to the core phenomenon, influenced strategies for the FinTech firm's valuation. By evaluating the benefits and competitive advantages arising from acquisition by banks or financial institutions, investors assessed whether the FinTech's offerings aligned with the strategic objectives of financial industries. Where such alignment existed, the FinTech's value increased because the probability of an early exit in the future rose.
	Completing the current portfolio of financial services		
	Creating new markets and customers		
Enhancing competitive advantage	Technology and intellectual/industrial property	(Hassan & Sadri, 2024; Kou et al., 2021; Langley & Leyshon, 2021)	
	Market-transforming product or service in financial markets		
Strategic risks for financial industries	Risk of disclosing sensitive data	(Horn et al., 2020)	Because financial industries do not accept significant reputational risk from collaborating with FinTech startups, venture capitalists assess these risks at the time of investment. Concepts derived from the literature regarding risks of collaboration between financial industries and FinTechs were categorized as strategic, cyber, regulatory, and operational risks. If investors perceived high risks in the FinTech's services when collaborating with financial industries, the firm's value declined due to the diminished probability of a timely sale to banks and financial institutions.
	Non-compliance with security standards by external suppliers (FinTech partners)		
Cyber risks for financial industries	Insufficient cybersecurity knowledge within the FinTech or its partners	(Lynn et al., 2020; Shabbir & Wisdom, 2020; Sheng, 2020; Thakor, 2020)	
	Non-compliance with financial-sector security standards by the FinTech or its suppliers/partners		

Regulatory risks for financial industries	Insufficient knowledge of laws and regulations within the FinTech	(Imerman & Fabozzi, 2020; Liu et al., 2020)	
	Automation and lack of transparency in allocating legal responsibilities (between the bank and FinTech partners)		
Operational risks for financial industries	Need for major changes in the financial institution's IT systems to deliver the FinTech service	(Farrow, 2020; Wang et al., 2019)	
	Need to train staff to deliver the FinTech service		
	Increased complexity in customer service delivery due to the FinTech service		
Inputs from financial industries	Infrastructure and licenses	(Mention, 2019; Mirazi, 2019)	From the perspective of venture capitalists, FinTech firms that grow by leveraging the reputation, customer network, financial resources, or infrastructure of banks and financial institutions are valued less than FinTechs capable of independent development and creation of new markets for banks and financial institutions. Investors understand that banks and financial institutions factor in their own contributions at acquisition, thereby limiting the sale price the investors can command.
	Capital and advertising budgets		
	Credibility of the bank or financial institution		
	Ready-made customer network		
Investor exit pathways	Market size/growth/competition	(Hassan & Sadri, 2024; Kou et al., 2021; Krische, 2019; Mahdavi & Jolaei, 2019)	Investors consider both short-term and long-term exit routes when deciding to invest in FinTech startups. The literature indicates two favorable exit scenarios for venture capital in FinTech. In the first, after acquiring equity, the FinTech has the potential to reach the public equity markets; in such cases, investors may achieve at least a tenfold return, typically when the FinTech captures substantial market share and becomes a market leader. Market size and growth, as well as the regulatory framework in the FinTech's domain, play a critical role in return on investment and IPO prospects.
	Regulatory stringency in financial industries		In the second scenario, a short-term exit is achieved by selling the FinTech to banks or financial institutions seeking competitive advantages through collaboration and technological innovation. Here, venture capitalists can exit sooner with lower risk but also lower returns compared to the first scenario. This typically requires founders' consent to merger or acquisition by the bank or financial institution. In practice, founders may resist due to perceived post-acquisition/merger risks. If such consent is not secured in the share-sale agreement to investors, this exit route is effectively foreclosed, reducing the FinTech's valuation.
	Being a first mover in a large, new market		
	Securing strong competitive advantage for financial industries through FinTech acquisition		
	FinTech's willingness to accept an early exit		
Follow-on investment	Pricing	(Bellardini et al., 2022; Frankel, 2020; Horn et al., 2020; Varma et al., 2022)	Alongside exit evaluation, investors conduct an additional assessment that affects practical strategies and the FinTech's valuation: if they retain and scale the FinTech, what costs would be required? Would future development necessitate follow-on investment? This matters because greater future capital needs invite additional investors and dilute current investors' equity. Ideally, growth capital should be funded from the FinTech's own revenues to avoid dilution from follow-on rounds. Positive assessments of factors such as FinTech service pricing, speed of converting investment to cash, and capital required until exit can indicate a market-leading FinTech capable of price leadership and sound profitability, thereby requiring less capital for future scaling. Conversely, negative assessments—high distribution/marketing costs, regulatory licensing burdens, and specialist staffing needs—signal a high-cost FinTech that, if financial industries are interested, is more suitable for sale to them.
	Speed of converting investment to cash		
	Amount of capital required until exit		
	Distribution and marketing costs		
	Need for regulatory licenses		
	Need for specialists		
Suitable for holding (scale to IPO)	First mover in a large market	(Liu et al., 2020; Sheng, 2020; Thakor, 2020; Yoon & Jun, 2019)	Practical investor strategies in FinTech follow two paths: (1) short-term exit via early sale of the FinTech to banks/financial institutions; or (2) holding and taking the FinTech to public markets. Both are viable; however, early exit yields lower returns with lower risk, whereas holding to IPO entails higher risk but potentially much higher returns.
	Ability to command premium pricing		
	High speed of converting investment to cash		

	Low capital needs until exit		
Suitable for sale (strategic M&A)	Securing high competitive advantage for financial-industry acquirers Potential for rapid FinTech growth using bank/financial-institution resources Low acquirer risk for banks/financial institutions High distribution cost of the product/service Need for regulatory approvals	(Jahantiq & Faraji, 2024; Jin, 2024; Kou et al., 2021; Langley & Leyshon, 2021)	
M&A in financial industries	Transfer of managerial control Time-consuming collaboration processes with banks Power asymmetry Cultural misalignment	(Gambacorta et al., 2023; Horn et al., 2020; Jahantiq & Faraji, 2024; Varma et al., 2022)	From investors' perspectives, major risks faced by FinTech founders during bank/financial-institution mergers or acquisitions include loss of control over the startup's management, lengthy collaboration processes due to high bureaucracy, power asymmetries in the partnership, and ultimately cultural misfit. Founders may refuse M&A due to these risks. If such consent is not secured in equity-sale agreements, the FinTech's valuation declines in the eyes of investors.

Ultimately, in order to establish the main categories of investment development in FinTech-based financial industries, the subcategories extracted from the literature were consolidated, and the final results of the meta-synthesis technique are presented in Table 3.

Table 3

Final Results of the Meta-Synthesis

Main Category	Abbreviation	Subcategories
Initial Infrastructure	R_1	FinTech at the Initial Investment Stage
		Benefits
		Competitive Advantage
FinTech Firm Value	R_2	FinTech Startup Management
		Innovative Product/Service
Investor Strategic Conditions	R_3	Strategic Risk of Financial Industries
		Cyber Risk of Financial Industries
		Regulatory Risk of Financial Industries
		Operational Risk of Financial Industries
		Inputs from Financial Industries
Investment Convenience	R_4	Investor Exit Strategies
		Need for Future Follow-on Investments
Operational Strategies	R_5	Suitable for Retention
		Suitable for Sale
Financial Outcomes	R_6	Mergers with Financial Industry Leaders
		Acquisition by Prominent Firms

During the meta-synthesis process, the researcher endeavored to maintain quality control through a recursive and continuous comparative process.

Additionally, to ensure greater reliability in coding quality, the inter-coder agreement method was employed. For this purpose, the codes extracted by the main researcher were provided to a second coder, who categorized them into broader themes and concepts.

As shown in Table 4, the researcher generated 12 codes, while the second coder produced 11 codes, of which 9 codes were common.

Table 4

Status of Code-to-Concept Conversion by the Researcher and the Second Coder

Researcher's View	Yes	No	Total
Yes	A = 9	B = 2	11
No	C = 3	D = 0	3
Total	12	2	14

$$K = (0.53 - 0.02) / (1 - 0.02) = 0.52$$

As observed, the Cohen's Kappa coefficient was calculated as 0.52, indicating a moderate level of agreement, which is considered acceptable for qualitative reliability.

4. Discussion and Conclusion

The findings of this research reveal that the FinTech-driven investment ecosystem operates as a dynamic and multi-layered construct where financial innovation, digital infrastructure, and strategic management converge to shape new patterns of capital allocation and risk management. The meta-synthesis results identified six main dimensions influencing investment development in FinTech-based financial systems: initial infrastructure, FinTech firm value, investor strategic conditions, investment convenience, operational strategies, and financial outcomes. Together, these dimensions provide a comprehensive framework for understanding how technological, institutional, and behavioral factors interact to determine the sustainability and profitability of FinTech investments (Kou et al., 2021; Li et al., 2023).

The results emphasize that robust initial infrastructure plays a fundamental role in fostering early-stage FinTech investment. This finding aligns with prior studies showing that startups possessing strong technological prototypes and viable digital platforms attract more venture capital interest (Lee & Shin, 2018; Varma et al., 2022). In particular, the existence of scalable technologies, such as AI-driven risk assessment tools and blockchain-based solutions, increases investor confidence by mitigating uncertainty and improving due diligence efficiency (Priyadarshi et al., 2024). The current study also found that the perceived benefits and competitive advantages derived from FinTech adoption—such as improved transaction speed, data transparency, and service personalization—enhance investors' willingness to allocate capital toward digital ventures (Horn et al., 2020). These results are consistent with (Carlini et al., 2022), who found that banks' investments in FinTech firms correlate with higher returns and lower credit risk due to technological integration and real-time analytics.

The value of FinTech companies, as derived from managerial experience, innovation capacity, and product-market fit, was another significant determinant of investment decisions. The research revealed that startups with experienced management teams and a track record in finance and technology were perceived as less risky and more sustainable by investors (Hassan & Sadri, 2024). These findings corroborate (Hornuf et al., 2021), who demonstrated that collaboration between banks and FinTech startups is facilitated by managerial competence and strategic alignment. Furthermore, the innovative nature of FinTech products—particularly those incorporating automation and artificial intelligence—was found to significantly influence valuation metrics (Jin, 2024). This supports earlier evidence by (Gambacorta et al., 2023), who highlighted that FinTech innovation promotes greater investor sophistication and portfolio diversification by reducing information asymmetry and improving predictive financial modeling.

The strategic conditions of investors emerged as a critical theme encompassing several forms of risk: strategic, cyber, regulatory, and operational. This study confirmed that investors in FinTech sectors are highly sensitive to risks associated with data breaches, compliance issues, and technological disruptions (Thakor, 2020). The presence of robust cybersecurity systems and compliance with international data protection standards significantly increases the attractiveness of FinTech firms (Wang et al., 2019). This observation echoes the conclusions of (Sheng, 2020), who found that FinTech's credit provision efficiency to small and medium-sized enterprises is heavily dependent on cybersecurity maturity and regulatory transparency. Likewise, (Shabbir & Wisdom, 2020) emphasized that environmental and social responsibility are increasingly integrated into FinTech firms' strategic risk frameworks, as sustainable practices reduce reputational risk and attract ethical investors.

Another key finding concerns the convenience of investment, which includes exit strategies and the need for reinvestment. Venture capitalists prioritize FinTech ventures that provide clear exit opportunities through acquisition or

public offerings (Langley & Leyshon, 2021). This study found that FinTech companies operating in large, fast-growing markets offer greater potential for high-yield exits, validating prior work by (Bellardini et al., 2022), who reported that banks prefer acquiring FinTech startups positioned in scalable markets with proven technological advantage. Similarly, (Mahdavi & Jolaei, 2019) noted that platforms offering flexible reinvestment models and sustainable liquidity cycles appeal more to institutional investors. The current findings also align with (Farrow, 2020), who emphasized that open banking infrastructures accelerate investor liquidity by facilitating rapid asset conversion and platform integration.

Operational strategies were found to moderate the relationship between FinTech innovation and investment success. Startups that demonstrated adaptability—either through holding strategies aimed at scaling toward public markets or through short-term sales to banks—showed superior capital efficiency. The research aligns with (Li et al., 2023), who found that banks investing in FinTech ventures prefer hybrid strategies that allow both technological absorption and capital exit flexibility. Furthermore, (Kou et al., 2021) confirmed that decision-making in FinTech investment benefits from hybrid analytical frameworks, integrating both fuzzy and data-driven models for risk evaluation. The results of this study extend these insights by showing that maintaining a dual strategy (i.e., preparing both for acquisition and independent scaling) maximizes investor resilience against market volatility.

The financial outcomes dimension highlights that mergers and acquisitions (M&A) within the financial sector are essential to FinTech scalability. However, the study revealed that founders' reluctance to cede managerial control often hinders M&A deals (Jahantiq & Faraji, 2024). This supports the findings of (Horn et al., 2020), who noted that cultural misalignment and bureaucratic inefficiency frequently disrupt partnerships between traditional financial institutions and digital startups. Nonetheless, when successful, M&A integration leads to significant financial performance gains for both entities (Carlini et al., 2022). This pattern is reinforced by (Varma et al., 2022), who found that such collaborations enhance technological diffusion and facilitate knowledge spillovers across financial systems. The current findings further demonstrate that investors perceive these mergers as optimal exit pathways, ensuring risk diversification and early return realization.

Collectively, the findings affirm that FinTech-driven investment development depends not merely on technological advancement but on a symbiotic relationship between innovation, governance, and strategic foresight. This conclusion aligns with the conceptual argument of (Lee & Shin, 2018), who characterized FinTech as an adaptive ecosystem combining finance, data analytics, and behavioral design. The present study extends this perspective by showing that FinTech ecosystems evolve along both technological and institutional trajectories—each influencing investment patterns differently. For instance, while AI-based risk analysis tools accelerate efficiency, institutional trust and regulatory compliance remain the decisive enablers of large-scale adoption (Huang, 2022).

The study's results also demonstrate the dual role of FinTech as both a disruptive and collaborative force within global financial systems. As (Liu et al., 2020) observed, the past decade of FinTech research reveals an ongoing tension between decentralization and consolidation, where emerging firms challenge incumbent institutions even as they seek strategic alliances. This dynamic was confirmed in the meta-synthesis, as investors increasingly favor hybrid investment models that balance innovation with structural stability (Hornuf et al., 2021). In particular, blockchain and open banking frameworks exemplify this co-evolutionary pattern, providing both competition and collaboration opportunities for traditional financial actors (Ya, 2020).

Moreover, the findings highlight the growing significance of sustainability-oriented FinTech solutions, reflecting the industry's shift toward environmental accountability and social governance. Studies by (Chueca Vergara & Ferruz Agudo, 2021) and (Mohammed et al., 2024) demonstrated that FinTech and sustainability mutually reinforce each other by channeling investments toward green finance and ethical business practices. The current study affirms this interaction, revealing that investors increasingly assess FinTech ventures not only for financial returns but also for their contributions to ESG performance. This dual-purpose investment perspective is particularly relevant in markets like Iran, where the integration of digital finance into green funding mechanisms supports national sustainability goals (Jahantiq & Faraji, 2024).

From a broader theoretical perspective, the results corroborate the notion of FinTech as a socio-technical system, where innovation is both technologically embedded and socially negotiated (Langley & Leyshon, 2021). Investment success depends on cross-sectoral collaboration between technology developers, regulators, and financial

institutions (Vanderlinden et al., 2019). The interplay between these actors facilitates knowledge diffusion and promotes systemic adaptability. Similarly, (Mention, 2019) argued that the future of FinTech will rely on collaborative ecosystems that merge technical innovation with institutional governance. The findings of this study strengthen this proposition by empirically demonstrating that investment development in FinTech systems is contingent upon co-evolution between public policy, corporate strategy, and technological progress.

Finally, the study revealed that regulatory stability and institutional trust serve as pivotal mediators between FinTech innovation and investor confidence. Excessive regulation can stifle innovation, while regulatory gaps can create systemic vulnerabilities (Thakor, 2020). Consistent with (Hosseini, 2021), the results show that an optimal balance between regulatory oversight and technological freedom fosters investor trust and market transparency. Moreover, the findings affirm that markets with strong legal frameworks—such as data protection and financial disclosure laws—tend to attract greater FinTech investment due to reduced information asymmetry (Yoon & Jun, 2019).

In summary, the findings from this meta-synthesis indicate that FinTech-based financial systems are defined by their ability to integrate innovation with strategic governance and adaptive risk management. These outcomes validate and extend existing literature, positioning FinTech not merely as a technological phenomenon but as an evolving financial paradigm that shapes investment behavior, institutional collaboration, and sustainable economic development (Mahdavi & Jolaei, 2019; Mirazi, 2019).

Despite the study's comprehensive synthesis of qualitative literature, certain limitations remain. First, the reliance on secondary data from published sources introduces potential publication bias, as studies with significant findings are more likely to be reported. Second, most of the reviewed literature is concentrated in developed financial markets, limiting generalizability to emerging economies with distinct institutional and regulatory contexts. Third, the use of meta-synthesis, while methodologically rigorous, cannot fully capture the quantitative magnitude of causal relationships among identified variables. Furthermore, some of the FinTech sectors examined—such as blockchain-based finance and decentralized investment platforms—are still evolving, which may cause current interpretations to lose relevance over time.

Future research should expand this model by incorporating longitudinal and mixed-methods designs that track the evolution of FinTech investment systems over time. Empirical testing of the proposed model through structural equation modeling or agent-based simulation could provide quantitative validation of the relationships identified in this study. Moreover, researchers should explore cross-country comparisons between developed and emerging economies to identify the influence of regulatory maturity, cultural factors, and digital infrastructure on FinTech investment dynamics. The integration of sustainability and green finance indicators into future models could also enhance understanding of how FinTech contributes to environmentally responsible investment behavior.

For practitioners, this study underscores the importance of adopting strategic frameworks that integrate technological innovation with financial governance. Investors and policymakers should prioritize risk management mechanisms that address cybersecurity, data privacy, and compliance challenges while enabling innovation. Financial institutions should also foster collaborative partnerships with FinTech startups to leverage complementary capabilities and accelerate digital transformation. Additionally, creating adaptive regulatory environments that promote transparency and trust will be crucial for sustaining long-term investment growth in FinTech ecosystems.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

Declaration of Interest

The authors report no conflict of interest.

Funding

According to the authors, this article has no financial support.

Ethics Considerations

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were considered.

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