

Strategic Financial Management in the Digital Era: Framework and Empirical Evidence

Fadhil Ashari¹, Muhroji²

^{1,2}Postgraduate Prof. K.H. Saifuddin Zuhri State Islamic University, Purwokerto, Indonesia

ABSTRACT: Digital transformation has fundamentally reshaped how organizations manage their financial functions, shifting from historical, periodic reporting toward management that is increasingly real-time, data-driven, and technologically integrated. This article aims to develop an integrative conceptual framework of strategic financial management in the digital era and to synthesize the empirical evidence that supports it, using a qualitative library research method with a narrative-thematic approach analyzed through explicit stages of coding and thematic synthesis. Through an in-depth review of 29 international literature sources, this article identifies five core dimensions that constitute strategic financial management in the digital era: (1) digital financial technology infrastructure, (2) data-driven decision-making, (3) digital risk governance and cybersecurity, (4) dynamic capabilities and strategic agility, and (5) digital financial literacy and human capital. The critical-comparative synthesis reveals one strong point of convergence digitalization is consistently associated with financial management effectiveness accompanied by cross-country contextual variation, a recurring pattern of mediation by organizational capability, and a methodological tension between the processual claims of dynamic capabilities theory and the cross-sectional designs that dominate the available evidence. Digital financial literacy emerges as a cross-cutting enabler that moderates the effectiveness of the other four dimensions, while dynamic capabilities are positioned as the meta-capability foundation linking the resource-based view to the three technology dimensions. This article contributes an integrative framework visualized through a layered structural diagram that bridges what has largely been a fragmented body of financial-technology research, while outlining a concrete future research agenda for empirically testing the proposed framework.

KEYWORDS: strategic financial management; digital transformation; dynamic capabilities; fintech; digital financial literacy

I. INTRODUCTION

A. Background

Digital transformation is a process aimed at changing an entity by triggering significant changes in its properties through a combination of information technology, computing, communication, and connectivity (Vial, 2019). This definition emphasizes that digital transformation is not merely the adoption of new technological devices, but a structural change that permeates nearly every organizational function, including the financial function. For decades, classical financial theory was built on assumptions of relatively efficient markets and periodically available information (Fama, 1970), as well as agency relationships between owners and managers that were managed through formal oversight mechanisms (Jensen & Meckling, 1976). These assumptions are now confronted with a new reality: financial data flowing continuously, decisions that must be made within minutes, and risks that evolve alongside increasingly interconnected systems.

This shift is clearly visible in four technological currents that dominate contemporary financial discourse. First, financial technology (fintech) has redefined how organizations manage payments, financing, and financial reporting (Gomber, Koch, & Siering, 2017; Yang, 2024). Second, big data analytics and artificial intelligence (AI) expand organizations' capacity for forecasting, risk detection, and data-driven decision-making at a scale and speed previously difficult to achieve manually (Bahoo, Cucculelli, Goga, & Mondolo, 2024; Egwuonwu, Mendy, Smart-Oruh, & Egwuonwu, 2024). Third, blockchain technology offers a new mechanism for ownership transparency and corporate governance, although its implications for the distribution of power among stakeholders remain debated (Yermack, 2017). Fourth, the success of these three currents turns out not to stand alone, but depends on the organization's capacity to continuously sense, seize, and transform (reconfigure) its resource base (Teece, Pisano, & Shuen, 1997; Warner & Wäger, 2019; Ellström, Holtström, Berg, & Josefsson, 2022) a capacity that, as elaborated in section 3.1, is rooted in the resource-based view (Barney, 1991).

Several studies have begun to directly link strategic financial management with the digital context. Ahmad (2024), for instance, asserts that the success of strategic financial planning in the digital era requires a balance between technology adoption,

Strategic Financial Management in the Digital Era: Framework and Empirical Evidence

human expertise, and strong governance structures. Nevertheless, most studies on financial management in the digital era still develop partially: fintech studies develop relatively separately from big data and AI studies, while blockchain and cybersecurity studies are often discussed as separate technical issues rather than as part of a single, coherent strategic financial management framework. This condition underlies the need for an integrative framework that unites these various streams of study.

B. Problem Statement

An initial review of the literature reveals at least three gaps. First, studies on fintech, big data/AI, blockchain, and digital financial literacy generally develop as separate strands with little cross-strand dialogue, making it difficult to obtain a coherent picture of how these four currents interrelate in strategic financial management practice. Second, most empirical evidence is context-specific for example, on manufacturing and service firms in Nigeria (Egwuonwu et al., 2024), financial institutions in Nigeria (Eghe-Ikhrhe & Bonsu-Assibey, 2022), or the millennial generation in Yogyakarta (Kusumawardhani, Prihatin, Damanik, & Mubarakah, 2025) such that cross-context generalization remains limited. Third, the dynamic capabilities theoretical framework, widely used to explain digital transformation in general (Teece et al., 1997; Vial, 2019), has not been extensively and explicitly adapted to the context of the financial function, even though this function is one of the organizational functions most affected by digitalization. These three initial gaps are examined more specifically in section 4.8.5, following the critical-comparative synthesis of empirical evidence from 29 sources.

Based on these gaps, this article formulates three research questions as follows.

RQ1: What dimensions constitute strategic financial management in the digital era according to existing international literature? RQ2: How does empirical evidence describe the pattern of association between each of these dimensions and organizations' strategic financial effectiveness and performance? RQ3: How can an integrative conceptual framework be constructed to explain the interrelationships among these dimensions, along with the limitations and challenges of their implementation?

C. Research Objectives and Contributions

This article aims to (1) identify and define the core dimensions of strategic financial management in the digital era based on a synthesis of the literature; (2) critically and comparatively map current empirical evidence on each dimension highlighting convergence, variation, patterns, and contradictions, rather than merely summarizing descriptively; and (3) construct an integrative conceptual framework that explicitly links the five dimensions together with their theoretical foundations. The novelty of this article is elaborated in more detail in section 1.5.

D. Research Novelty

The novelty of this article lies in three interrelated aspects. First, this article explicitly integrates five streams of study that have hitherto developed relatively separately fintech, big data and artificial intelligence (AI), blockchain, dynamic capabilities, and digital financial literacy into a single coherent and layered strategic financial management framework, rather than merely a list of themes arranged side by side.

Second, the novelty lies in asserting the distinct theoretical positioning of D4 (dynamic capabilities and strategic agility) and D5 (digital financial literacy and human capital), which differ structurally from the other three dimensions. D4 is positioned as a *meta-capability* or foundational capability that enables organizations to effectively and sustainably leverage D1 (technology infrastructure), D2 (data analytics), and D3 (digital risk governance). D5 is positioned not as a fifth dimension standing alongside the other four, but as a *cross-cutting enabler* that moderates the effectiveness of D1 through D4. This assertion of structural positioning together with its theoretical justification in section 3.16 distinguishes this article from prior studies that generally treat these five streams as variables of equal standing.

Third, the methodological novelty lies in the critical-comparative synthesis approach rather than merely descriptive-narrative that explicitly maps convergence, contextual variation, recurring patterns, contradictions, and research gaps across dimensions (section 4.8), supported by a transparent literature table (section 4.1) that displays the entire source base analyzed, along with each source's country context, method, and findings.

E. Article Structure

This article is organized as follows: the second section explains the library research method used, including the explicit stages of searching, selection, and data analysis; the third section presents the theoretical foundations and the five-dimension conceptual framework along with its visualization; the fourth section presents a summary table of all the literature analyzed, the critical-comparative results and discussion for each dimension along with a synthesis table, as well as an in-depth discussion of the convergence, variation, patterns, contradictions, and research gaps; and the fifth section closes the article with conclusions, implications, limitations, and a concrete future research agenda.

II. RESEARCH METHOD

A. Research Design and Approach

This article employs a qualitative approach through the library research method. Snyder (2019) asserts that a literature review is a legitimate research methodology for synthesizing fragmented knowledge, identifying conceptual gaps, and building new theoretical foundations these three functions being precisely the aims of this article. The approach used is narrative-thematic, rather than a systematic review with a formal PRISMA protocol, because the aim of this article is to build an integrative conceptual framework, not to calculate a pooled effect size (meta-analysis) or map the entire study population on a single narrow topic. This design is retained in the revised version of this article; the improvements made focus on clarifying the stages of searching, selection, and data analysis, rather than changing the approach to quantitative research or a survey.

B. Literature Search Stage

The literature search was conducted on reputable academic databases and search engines, including Scopus, ScienceDirect, Emerald Insight, SpringerLink, Taylor & Francis Online, Wiley Online Library, IEEE Xplore, and Google Scholar, using combinations of keywords such as strategic financial management, digital transformation, financial technology/fintech, big data analytics in finance, artificial intelligence in corporate finance, blockchain governance, digital financial literacy, and dynamic capabilities. Inclusion criteria comprised: (1) articles from reputable indexed international journals or accessible scientific proceedings; (2) written in English or Indonesian; (3) thematically relevant to strategic financial management and digitalization; and (4) published primarily within the 2017–2026 range, with exceptions for classical theoretical references that form the foundation of the field, such as the works of Jensen and Meckling (1976), Fama (1970), Becker (1964), Barney (1991), and Tornatzky and Fleischer (1990). Exclusion criteria comprised non-academic sources without a peer-review process (corporate blogs, vendor marketing materials) and articles that merely mentioned key terms without substantive discussion.

The search process was conducted in two stages. The first stage, during the preparation of the initial draft of this article, yielded 21 primary sources that became the core references for the five-dimension framework. To respond to feedback that the synthesis should not rely too heavily on a single, limited group of sources, a second stage was conducted in the form of a supplementary search using the same keywords within the 2021–2026 publication range, specifically focused on the most recent international literature in each dimension whose representation remained thin particularly D2, D3, and D4. This second stage added eight new sources that passed the same inclusion-exclusion criteria, bringing the total number of sources analyzed in depth in this version of the article to 29 sources (see Table 2 in section 4.1), supported by more than 100 documents whose abstracts were traced and reviewed in their entirety across both search stages.

C. Literature Selection Stage

Literature selection followed a staged process as follows. Identification stage: an initial search across all databases and keyword combinations yielded more than 100 potentially relevant documents. Title and abstract screening stage: documents that were not thematically relevant or did not meet the inclusion-exclusion criteria were set aside, leaving approximately 45 documents for full-text review. Full-text assessment stage: documents that turned out to merely mention key terms without substantive discussion, or whose findings overlapped with other, more representative sources on the same theme, were eliminated. Final source determination stage: a total of 29 sources were retained as the primary references analyzed in depth and forming the basis for the thematic synthesis in this article. It should be emphasized that, as a narrative literature review rather than a systematic review with a formal PRISMA protocol this article does not claim full traceability for every document excluded during the screening stage, as further elaborated in the research limitations section (5.4).

D. Data Analysis Stage: Coding and Thematic Synthesis

Data analysis was conducted through three sequential steps following the logic of thematic synthesis as described by Snyder (2019).

The first step was open coding: each source was read in depth, and its findings, arguments, and key concepts were given brief descriptive codes for example, “SME_fintech_adoption,” “data_analytical_capability,” “blockchain_transparency,” “dynamic_capability_routines,” or “digital_literacy_moderation.”

The second step was axial coding: these descriptive codes were compared and grouped into broader categories based on conceptual proximity and interrelatedness, until five major thematic groups emerged that consistently appeared across sources. These five thematic groups subsequently became the five dimensions of the conceptual framework (D1–D5) presented in section 3.

The third step was thematic synthesis: within each thematic group, findings across sources were systematically compared to identify points of convergence, contextual variation, recurring patterns, contradictions, and research gaps, as presented in section 4.

The classification process across these three steps was conducted manually and iteratively the thematic categories in the second step were reviewed several times as sources were added during the supplementary search stage (section 2.2), to ensure that the five resulting dimensions genuinely represent patterns emerging from the data, rather than categories determined a priori before the literature search was conducted.

III.CONCEPTUAL FRAMEWORK: FIVE DIMENSIONS OF STRATEGIC FINANCIAL MANAGEMENT IN THE DIGITAL ERA

A. Theoretical Foundations and Their Links to the Five Dimensions

Before presenting the five dimensions in detail, this section first establishes the theoretical foundations that link each dimension to the relevant theoretical tradition, so that the relationship between theory and the empirical framework is not merely implicit.

The primary theoretical foundation of this article is dynamic capabilities theory, developed by Teece, Pisano, and Shuen (1997). This theory is an extension of the resource-based view (RBV) formulated by Barney (1991), which states that sustainable competitive advantage stems from organizational resources that are valuable, rare, difficult to imitate, and difficult to substitute (the VRIN criteria). RBV explains well why digital financial technology infrastructure (D1) can be a source of advantage namely, when that infrastructure is uniquely configured and difficult for competitors to imitate but RBV is less able to explain how organizations continuously renew their resource base amid rapidly changing environments, as occurs with financial digitalization. Dynamic capabilities fill this gap by asserting that sustained competitive advantage in a turbulent environment depends on an organization’s capacity to purposefully sense, seize, and reconfigure (transform) its resource base. On this basis, this article positions D4 (dynamic capabilities and strategic agility) as the foundation or meta-capability underlying the other three technology dimensions (D1–D3): without this sensing-seizing-transforming capacity, investment in fintech, big data/AI, or blockchain risks remaining a static asset that is not reconfigured as the organization’s strategic needs change an argument consistent with the empirical findings of Valdez-Juárez, Ramos-Escobar, Hernández-Ponce, and Ruiz-Zamora (2024) that digital transformation without supporting capabilities produces only a small direct effect on financial performance.

The three technology dimensions (D1–D3) each also rest on a different theoretical tradition. D1 (digital financial technology infrastructure) is explained through the technology-organization-environment (TOE) framework of Tornatzky and Fleischer (1990), which asserts that technology adoption decisions and outcomes are shaped by the interaction between the characteristics of the technology itself, internal organizational readiness, and external environmental pressures not by technology availability alone, consistent with evidence that fintech adoption alone does not guarantee outcomes without organizational readiness (Hughes, Seddon, & Dwivedi, 2024; Yang, 2024). D2 (data-driven decision-making) rests on the analytical-capability perspective on decision-making, which views big data and AI not as automatic sources of value, but as inputs whose value is only realized when the organization has the capability to interpret and act upon them (Bahoo et al., 2024). D3 (digital risk governance and cybersecurity) is linked to agency theory (Jensen & Meckling, 1976): governance mechanisms including technology-based ones such as blockchain are fundamentally designed to reduce information asymmetry and agency costs between managers, owners, and other stakeholders, a function directly addressed by Yermack (2017) in discussing blockchain’s potential to shift the balance of power in corporate governance.

D5 (digital financial literacy and human capital), meanwhile, is linked to human capital theory, rooted in the idea that individual knowledge and skills are a form of capital that enhances productivity and the quality of decision-making (Becker, 1964). In the context of strategic financial management in the digital era, it is precisely this digital-financial competence that becomes a prerequisite for realizing the potential of technology in D1–D3, as consistently shown by Lyons and Grable (2021), Kumar, Pillai, Kumar, and Tabash (2023), Kusumawardhani et al. (2025), Al-Afeef and Alsmadi (2025), and Andreou and Anyfantaki (2021) across different national contexts. Because of its recurring role as a prerequisite for the effectiveness of the other dimensions rather than as a standalone source of value D5 is positioned as a cross-cutting enabler, rather than as a fifth dimension on par with D1–D4. This theoretical linkage forms the basis for the argument that the five-dimension framework in this article is not merely a list of themes emerging from the literature, but a layered structure with theoretical justification at every level.

B. Five Dimensions of Strategic Financial Management in the Digital Era

Strategic financial management in the digital era can be understood as the process of planning, organizing, and controlling an organization’s financial resources that deliberately leverages digital technology and supporting organizational capabilities to achieve sustainable competitive advantage. Based on the thematic synthesis of 29 sources (section 2.4), five mutually reinforcing dimensions were identified, as summarized in Table 1.

Table 1. Conceptual Framework of the Five Dimensions of Strategic Financial Management in the Digital Era

Dimension	Main Construct	Example Technology/Practice	Key Theoretical Sources
D1. Digital Financial Technology Infrastructure	Digitalization of core financial processes	Fintech, cloud-based ERP systems, digital payment applications	Gomber et al. (2017); Yang (2024); Barney (1991)
D2. Data-Driven Decision-Making	Predictive and prescriptive analytics	Big data analytics, machine learning, artificial intelligence (AI)	Bahoo et al. (2024); Egwuonwu et al. (2024); Bayakhmetova et al. (2025)

Strategic Financial Management in the Digital Era: Framework and Empirical Evidence

Dimension	Main Construct	Example Technology/Practice	Key Theoretical Sources
D3. Digital Risk & Governance Cybersecurity	Transparency, data integrity, risk mitigation	Blockchain, smart contracts, cybersecurity frameworks	<i>Yermack (2017); Ogedengbe & Adelowotan (2025)</i>
D4. Dynamic Capabilities & Strategic Agility	Sensing – seizing – transforming	Routine work reorganization, digital strategy alignment	<i>Teece et al. (1997); Barney (1991); Warner & Wäger (2019); Ellström et al. (2022)</i>
D5. Digital Financial Literacy & Human Capital	Digital-financial competence of human resources	Digital literacy training, staff capability-building programs	<i>Lyons & Grable (2021); Kusumawardhani et al. (2025)</i>

The five dimensions in Table 1 are not intended as a flatly parallel list. As elaborated in section 3.1, D4 functions as the foundation underlying D1–D3, while D5 functions as the enabling factor that moderates the effectiveness of all four. This layered structure is visualized in section 3.3.

C. Layered Structure Among Dimensions and Visual Framework

To clarify the structural relationships among the five dimensions described above, Figure 1 presents the integrated conceptual framework visually. This framework depicts D4 as the foundational layer (meta-capability) underpinning the three technology dimensions (D1–D3); D5 as the cross-cutting enabling layer that spans D1–D3 and moderates their effectiveness (marked with a ♦ symbol in Figure 1); and all four together culminating in strategic financial performance outcomes at the top layer.

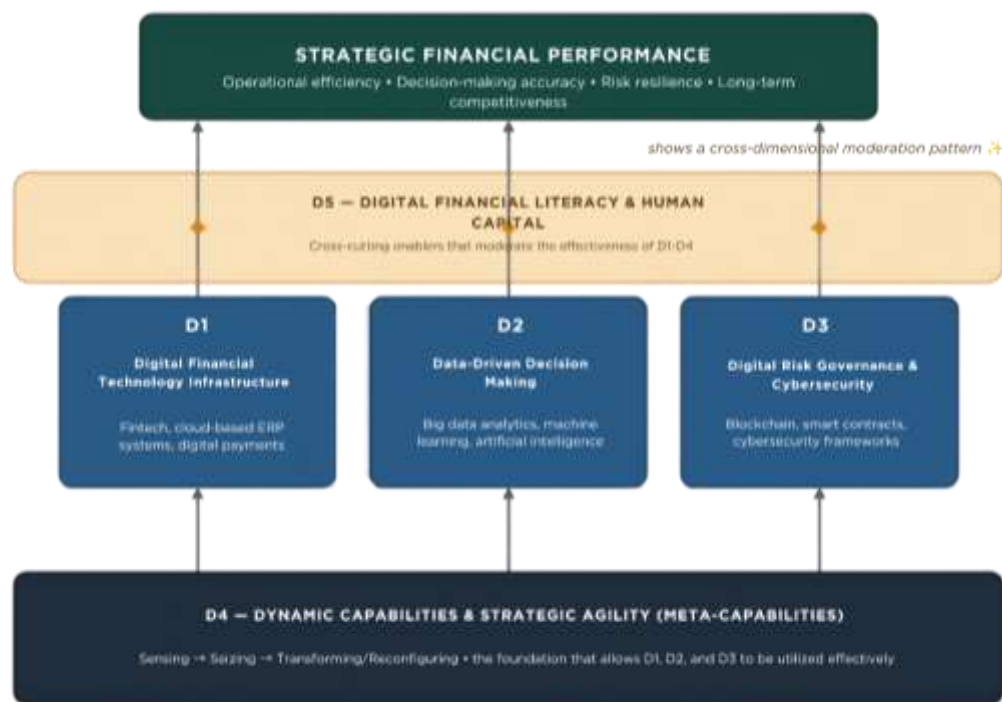


Figure 1. Integrated Conceptual Framework of Strategic Financial Management in the Digital Era

Source: synthesized by the authors from the 29 literature sources analyzed (see Table 2).

It should be emphasized that the framework in Figure 1 is the result of a qualitative synthesis of the literature reviewed, not a model that has been statistically tested (for example, through structural equation modeling or path analysis). The arrows in the figure represent the direction of conceptual relationships suggested by the pattern of evidence across sources, not path coefficients or effect sizes that have been empirically estimated. Empirical testing of this framework for example, through a large-scale survey with structural equation modeling is one of the future research agendas outlined in section 5.5.

IV. RESULTS AND DISCUSSION

A. Overview of Sources Analyzed: Transparency of the Literature Base

As explained in section 2.4, twenty-nine sources served as the primary references analyzed in depth in this article. To ensure that this selection and analysis process can be traced transparently by the reader rather than being referenced only narratively throughout the text Table 2 summarizes all these sources along with their authors and year of publication, country or context of study, research focus, method used, key findings, and the relevant theme/dimension of the conceptual framework. Sources that serve as general theoretical foundations (Fama, 1970; Jensen & Meckling, 1976; Barney, 1991; Becker, 1964; Tornatzky & Fleischer, 1990; Teece et al., 1997) are also included because their theoretical role has been elaborated in section 3.1, even though they are conceptual in nature and do not originate from country-specific contextual studies.

Table 2. Summary of the Literature Analyzed

No.	Author (Year)	Country/Context	Research Focus	Method	Key Findings	Theme/Dimension
1	Fama (1970)	General / cross-context	Capital market efficiency	Conceptual-theoretical	Market prices reflect available information rapidly	Theoretical foundation
2	Jensen & Meckling (1976)	General / cross-context	Agency theory	Conceptual-theoretical	Agency costs arise from the separation of ownership and control	Theoretical foundation (D3)
3	Barney (1991)	General / cross-context	Resource-based view (RBV)	Conceptual-theoretical	Sustainable competitive advantage stems from resources that are valuable, rare, difficult to imitate, and difficult to substitute (VRIN)	Theoretical foundation (D1, D4)
4	Becker (1964)	General / cross-context	Human capital theory	Conceptual-theoretical	Individual knowledge and skills are a form of capital that improves decision quality	Theoretical foundation (D5)
5	Tornatzky & Fleischer (1990)	General / cross-context	Organizational technology adoption	Conceptual-theoretical	Technology adoption is shaped by the interaction of technology–organization–environment (TOE framework)	Theoretical foundation (D1)
6	Teece, Pisano & Shuen (1997)	General / cross-context	Dynamic capabilities	Conceptual-theoretical	Sustainable competitive advantage stems from sensing–seizing–transforming capacity	Theoretical foundation (D4 – primary foundation)
7	Snyder (2019)	General methodological /	Literature review methodology	Methodological	A literature review is a legitimate methodology for	Methodological foundation (Section 2)

Strategic Financial Management in the Digital Era: Framework and Empirical Evidence

No.	Author (Year)	Country/Context	Research Focus	Method	Key Findings	Theme/Dimension
					synthesizing fragmented knowledge	
8	Gomber, Koch & Siering (2017)	General / cross-context	Digital finance and FinTech	Conceptual review	Fintech redefines how organizations manage payments, financing, and reporting	D1
9	Yang (2024)	China (firm-oriented)	Fintech and corporate digital transformation	Literature review	Fintech is a prerequisite for digital transformation; its effectiveness is associated with internal and external firm factors	D1
10	Hughes, Seddon & Dwivedi (2024)	Global FinTech industry (multi-country expert perspective)	Challenges of FinTech digital transformation	Mixed-methods (ISM, AHP, expert interviews)	Structural challenges in aligning strategy with legacy systems	D1
11	Dewi & Firdaus (2023)	Indonesia (e-commerce-based SMEs)	Digital accounting and SME financial performance	Quantitative	Use of digital accounting is associated with SME financial performance	D1
12	Asif, Khan, Tiwari, Wani & Alam (2023)	India	Fintech and financial inclusion	Regression (secondary data)	Fintech is associated with increased financial inclusion, especially the middle class	D1
13	Bahoo, Cucculelli, Goga & Mondolo (2024)	Global (bibliometric, 1992–2021 corpus)	Artificial intelligence in finance	Bibliometric and content analysis	AI-finance research is growing rapidly; many research directions remain unresolved	D2
14	Egwuonwu, Mendy, Smart-Oruh & Egwuonwu (2024)	Nigeria (manufacturing and services)	Big data analytics and firm performance	Quantitative survey	Big data analytics adoption is associated with financial and non-financial performance	D2
15	Bayakhmetova, Rudenko, Krylova, Suleimenova,	Global (bibliometric, Scopus database)	Artificial intelligence and financial behavior	Bibliometric (Bibliometrix)	Annual growth of AI-financial behavior research recorded at 13.34%	D2

Strategic Financial Management in the Digital Era: Framework and Empirical Evidence

No.	Author (Year)	Country/Context	Research Focus	Method	Key Findings	Theme/Dimension
	Niyazbekova & Nurpeisova (2025)					
16	Yermack (2017)	General / cross-context	Blockchain and corporate governance	Conceptual-analytical	Blockchain has the potential to shift the balance of power among stakeholders	D3
17	Eghe-Ikhrhe & Bonsu-Assibey (2022)	Nigeria (financial institutions)	Blockchain and corporate governance	Quantitative (regression, n=121)	Blockchain adoption is positively associated with corporate governance	D3
18	Ogedengbe & Adelowotan (2025)	Global (systematic review, 106 articles)	Blockchain and corporate governance	Systematic thematic review	Proposes a “Holistic Governance Synthesis” framework for integrating blockchain and governance	D3
19	Vial (2019)	Global (review of 282 scholarly works)	Digital transformation	Literature review	Digital transformation as both a disruption process and an organizational strategic response	D4
20	Warner & Wäger (2019)	Established firms (case study)	Dynamic capabilities for digital transformation	Qualitative case study	Digital transformation unfolds as an ongoing strategic renewal	D4
21	Ellström, Holtström, Berg & Josefsson (2022)	Sweden (established firms)	Dynamic capabilities for digital transformation	Qualitative case study	Six specific routines identified as supporting digital transformation	D4
22	Nadkarni & Prügl (2021)	Global (extensive literature review)	Digital transformation	Review synthesis and	Human and organizational factors are considered as important as technological factors	D4
23	Valdez-Juárez, Ramos-Escobar, Hernández-Ponce & Ruiz-Zamora (2024)	Mexico (4,121 SMEs)	Digital transformation, innovation, and dynamic capabilities	Quantitative (PLS-SEM)	Digital transformation has a small direct effect on financial performance; the	D4

Strategic Financial Management in the Digital Era: Framework and Empirical Evidence

No.	Author (Year)	Country/Context	Research Focus	Method	Key Findings	Theme/Dimension
					main effect is mediated by innovation	
24	Ahmad (2024)	General conceptual /	Strategic financial management in the digital era	Conceptual	Success in digital financial planning requires a balance of technology, people, and governance	D4 (cross-dimensional)
25	Lyons & Grable (2021)	General methodological /	Measuring digital financial literacy	Methodological-conceptual	Proposes a measurement framework for digital financial literacy that is not yet globally standardized	D5
26	Kumar, Pillai, Kumar & Tabash (2023)	Individual (questionnaire survey)	Digital financial literacy and financial well-being	Quantitative (survey)	Digital financial literacy plays both a direct and a mediating role in financial decision quality	D5
27	Kusumawardhani, Prihatin, Damanik & Mubarakah (2025)	Indonesia (millennial generation, Yogyakarta)	Digital financial literacy and consumer behavior	Quantitative (survey)	Higher literacy is associated with more strategic financial behavior	D5
28	Al-Afeef & Alsmadi (2025)	Jordan (232 respondents)	Digital literacy and financial mastery	Quantitative (survey)	Digital literacy is associated with financial inclusion and better financial decisions	D5
29	Andreou & Anyfantaki (2021)	Cyprus (national survey)	Financial literacy and internet banking behavior	Quantitative (survey)	Financial literacy is associated with the level of i-banking service usage	D5

As shown in Table 2, the distribution of methods is fairly diverse ranging from conceptual-theoretical studies, literature reviews, and bibliometric analyses, to quantitative studies (surveys and regressions) and qualitative case studies and the distribution of country contexts spans Indonesia, Nigeria, India, Jordan, Cyprus, Mexico, Sweden, and China, alongside a number of studies that are global or cross-context in nature. This diversity forms the basis for the critical-comparative discussion in subsections 4.2 through 4.8.

B. Digital Financial Technology Infrastructure: Fintech and Cloud-Based Systems (D1)

Fintech is broadly defined as the application of technological innovation to financial services, encompassing digital payments, alternative financing, and automated reporting (Gomber et al., 2017). Yang (2024) indicates that fintech has become an important prerequisite for companies particularly those that do not yet possess substantial capital strength to accelerate digital transformation, with its effectiveness associated with internal firm characteristics (ownership, age, size) as well as external factors (regulation, level of marketization, and media scrutiny). At the SME level, Dewi and Firdaus (2023) show that the use of digital

Strategic Financial Management in the Digital Era: Framework and Empirical Evidence

accounting in the context of e-commerce in Indonesia is associated with better financial performance, although both authors emphasize that this relationship is not always direct and linear the quality of accounting information also plays a mediating role. At a more macro level, Asif, Khan, Tiwari, Wani, and Alam (2023) found, through secondary data analysis in India, that the growth of fintech businesses is associated with expanded financial inclusion, particularly for middle-class groups previously underserved by conventional banking.

Nevertheless, evidence regarding the benefits of this digital infrastructure is not always uniform. Hughes, Seddon, and Dwivedi (2024), through a mixed-methods approach combining Interpretive Structural Modelling, Analytical Hierarchy Process, and expert industry interviews, identify that financial institutions face structural challenges in aligning strategic direction with digital transformation initiatives while still maintaining essential legacy systems, particularly as customer expectations for digital services continue to rise. This finding indicates that the benefits of digital financial technology infrastructure depend on organizational readiness to manage the transition not merely on the availability of the technology itself. In other words, the adoption of fintech and digital systems opens up opportunities, but their realization is filtered by organizational readiness factors and institutional context, consistent with the technology-organization-environment framework, which emphasizes that technology adoption is always shaped by the interaction of these three factors, not by technology alone (Tornatzky & Fleischer, 1990).

Comparing the findings of Asif et al. (2023) in India with those of Dewi and Firdaus (2023) in Indonesia also reveals an interesting pattern: the benefits of fintech at the macro level (national financial inclusion) and at the micro level (individual SME performance) are both reported as positive, but their mechanisms and units of analysis differ a nuance that is easily lost if the two findings are simply generalized into a single claim that “fintech improves financial performance.”

C. Big Data and Artificial Intelligence in Financial Decision-Making (D2)

Big data analytics and AI expand the analytical capacity of the financial function, from cash-flow forecasting to fraud detection and credit risk assessment. Bahoo, Cucculelli, Goga, and Mondolo (2024), through a comprehensive bibliometric review and content analysis of the 1992–2021 literature, document the rapid growth of AI-in-finance research and highlight that many research questions remain unresolved regarding the impact of this disruptive technological development on financial practice. Bayakhmetova, Rudenko, Krylova, Suleimenova, Niyazbekova, and Nurpeisova (2025) reinforce this picture through a more recent bibliometric mapping of 1,019 Scopus documents from 1987–2024, recording an annual publication growth rate of 13.34 percent and a thematic shift from mere neural-network-based prediction toward broader studies of financial decision-making behavior. At the firm level, Egwuonwu, Mendy, Smart-Oruh, and Egwuonwu (2024) found that big data analytics adoption is associated with the financial and non-financial performance of manufacturing and service firms in Nigeria, although the strength of this association is also determined by how managerial decisions convert analytical results into concrete action.

A critical point that needs to be underscored is that the relationship between big data/AI and the quality of financial decisions is not direct or automatic. A number of studies emphasize that the positive association of big data analytics with performance depends heavily on the analytical capability built by the organization, not merely on the volume of data it possesses. Thus, investment in analytical technology without accompanying organizational capability to interpret and act on its results risks failing to produce meaningful improvements in decision quality an important implementation gap that is often missing from the optimistic narrative surrounding big data in finance. Interestingly, both the global bibliometric reviews (Bahoo et al., 2024; Bayakhmetova et al., 2025) and the firm-level study in a developing-country context (Egwuonwu et al., 2024) converge on a similar conclusion: the rapid growth of the literature is not necessarily accompanied by clarity of mechanism regarding how and under what conditions big data/AI actually produces better financial decisions a gap examined further in section 4.8.5.

D. Blockchain, Governance, and Digital Risk Management (D3)

Yermack (2017) is one of the early studies to systematically evaluate the implications of blockchain for corporate governance, emphasizing that the lower costs, higher liquidity, more accurate record-keeping, and ownership transparency offered by blockchain have the potential to significantly shift the balance of power among managers, institutional investors, minority shareholders, auditors, and other stakeholders in corporate governance. This argument is important because it shifts the way blockchain is viewed: not merely a transaction-recording technology, but an instrument with the potential to restructure power relations and accountability within organizations a function that, drawing on agency theory (Jensen & Meckling, 1976), is fundamentally aimed at reducing information asymmetry between principals and agents.

Research developments following Yermack (2017) present a more varied picture. Eghe-Ikhurhe and Bonsu-Assibey (2022), through a survey of 121 respondents at financial institutions in Nigeria, report that blockchain adoption is positively associated with strengthened corporate governance, partly through a reduced role for intermediaries in decision-making processes. At the level of broader literature synthesis, Ogedengbe and Adelowotan (2025), through a systematic thematic review of 106 articles, propose a “Holistic Governance Synthesis” framework that maps the features, factors, benefits, and risks of integrating blockchain into corporate governance, while also noting that research on this topic remains concentrated in a handful of contexts an observation relevant to the geographic gap also identified in section 4.8.5.

Strategic Financial Management in the Digital Era: Framework and Empirical Evidence

The critical discussion here needs to affirm that this potential is not necessarily realized automatically or uniformly. The power restructuring proposed by Yermack (2017) is two-sided: increased transparency can strengthen minority-shareholder oversight, but it also demands a thorough redesign of governance processes, internal control systems, and organizational information management a process that is not simple and risks generating internal resistance. In other words, blockchain offers the possibility of more transparent governance and digital risk management, but its effectiveness ultimately depends on the extent to which the organization redesigns its governance structure to leverage this technology's transparent nature, rather than merely layering it on top of existing structures a pattern also reflected in the study by Eghe-Ikhrhe and Bonsu-Assibey (2022), which emphasizes that the benefits of blockchain for governance in Nigerian financial institutions materialize alongside changes in the role and function of organizational intermediaries, rather than as a mere technological addition.

E. Dynamic Capabilities as a Strategic Foundation (D4)

Dynamic capabilities are defined as an organization's capacity to purposefully create, extend, and modify its resource base (Teece et al., 1997) a direct extension of the resource-based view (Barney, 1991) discussed in section 3.1 which is operationally realized through three capacities: sensing opportunities and threats, seizing those opportunities through resource mobilization, and transforming/reconfiguring organizational assets. Vial (2019), through a comprehensive review of 282 scholarly works, synthesizes digital transformation as a process that triggers disruption while also driving organizational strategic responses, and positions dynamic capabilities as one of the main research agendas for understanding how organizations manage this process. Warner and Wäger (2019) reinforce this idea by showing that digital transformation in established firms unfolds as an ongoing process of strategic renewal, rather than a project completed at a single point in time.

More operationally, Ellström, Holtström, Berg, and Josefsson (2022) identify six specific routines that support digital transformation in established Swedish firms, including cross-industry digital sensing, sensing digital infrastructure needs from within the organization, and breaking down digital transformation initiatives into more manageable projects. Nadkarni and Prügl (2021) add an important dimension through a broader literature synthesis, namely that digital transformation cannot be understood solely through a technological lens, but also requires attention to human and organizational factors.

Recent empirical evidence reinforces the argument that dynamic capabilities function as a prerequisite, not a complement, for converting digital transformation into financial performance. Valdez-Juárez, Ramos-Escobar, Hernández-Ponce, and Ruiz-Zamora (2024), through a large-scale survey of 4,121 SMEs in Mexico using PLS-SEM modeling, found that digital transformation alone has only a small direct association with financial performance; a stronger association instead emerges when digital transformation is first converted into technological or non-technological innovation, which then becomes significantly associated with financial performance. This pattern empirically illustrates the conceptual argument previously advanced by Teece et al. (1997) and Vial (2019): digital technology does not automatically generate value; that value is mediated by the organization's capability to convert it.

A critical contribution that can be drawn from this body of dynamic-capabilities research is that such capabilities are processual and layered in nature they are built gradually through concrete organizational routines, rather than being an asset that can be purchased or acquired instantly through technology investment alone. The implication for strategic financial management is that the success of digitalizing the financial function (dimensions D1–D3) is ultimately determined by the extent to which the organization has built these dynamic capabilities as an underlying foundation an argument that now receives direct empirical support from a Latin American context (Valdez-Juárez et al., 2024), complementing conceptual support that previously rested on European case studies (Warner & Wäger, 2019; Ellström et al., 2022).

F. Digital Financial Literacy and Human Capital (D5)

Digital financial literacy is understood as a blend of conventional financial literacy with digital competence that enables individuals to effectively utilize technology-based financial services (Lyons & Grable, 2021) a construct that, as elaborated in section 3.1, is rooted in human capital theory (Becker, 1964), which views knowledge and skills as a form of capital that enhances the quality of individual decision-making. Kumar, Pillai, Kumar, and Tabash (2023) found that digital financial literacy plays both a direct role and a mediating role in the relationship between individual skills and the quality of financial decision-making and perceived financial well-being. In the Indonesian context, Kusumawardhani et al. (2025) show that higher levels of digital financial literacy among the millennial generation in Yogyakarta are significantly associated with more strategic financial behavior, reflected in more responsible spending patterns and more consistent saving habits. Al-Afeef and Alsmadi (2025) reinforce this pattern, finding, through a survey of 232 respondents in Jordan, that digital literacy is associated with increased financial inclusion as well as improved financial decision-making quality at the individual level.

Evidence from the European context further enriches this picture. Andreou and Anyfantaki (2021), through a national survey in Cyprus a country that experienced a major financial crisis in 2013 found that a generally low level of financial literacy (only 37.3 percent of respondents demonstrated adequate financial competence) is associated with low utilization of internet banking services, even as the need for such services continued to rise post-crisis. This finding is important because it reveals the other side of the same pattern: when digital financial literacy is low, the potential benefits of even readily available digital financial technology

Strategic Financial Management in the Digital Era: Framework and Empirical Evidence

infrastructure (D1) are difficult to realize additional evidence for the argument that D5 functions as a prerequisite, not a complement, for the other dimensions.

What is particularly worth highlighting critically is the recurring pattern in which digital financial literacy appears not as a standalone dimension, but as a prerequisite or moderator for the effectiveness of the other dimensions. As noted in subsection 4.2, the success of fintech adoption among SMEs is associated with users' level of digital literacy and trust; in subsection 4.3, the benefits of big data analytics are only realized when the organization possesses adequate analytical capability, which in turn rests on the competence of its human resources; and in subsection 4.4, the effectiveness of blockchain-based governance depends on the readiness of organizational actors to redesign their work processes. This recurring pattern, now supported by evidence from four different national contexts Jordan (Al-Afeef & Alsmadi, 2025), Indonesia (Kusumawardhani et al., 2025), Cyprus (Andreou & Anyfantaki, 2021), and the cross-individual study by Kumar et al. (2023) forms the basis for this article's synthesis argument: digital financial literacy is more appropriately positioned as a cross-cutting enabler that moderates the effectiveness of dimensions D1 through D4, rather than merely as one dimension standing alongside them.

G. Synthesis of Empirical Evidence

Table 3 summarizes the synthesis of empirical evidence across the five dimensions, condensing the discussion in subsections 4.2 through 4.6 into a format that facilitates cross-dimensional comparison, including the boundary conditions or context that frame each finding.

Table 3. Synthesis of Empirical Evidence Across the Five Dimensions

Dimension	Representative Studies	Key Empirical Findings	Boundary Conditions/Context
D1	Gomber et al. (2017); Yang (2024); Hughes et al. (2024); Dewi & Firdaus (2023); Asif et al. (2023)	Adoption of fintech and digital systems is associated with improved transaction efficiency, financial reporting accuracy, and expanded financial inclusion	Benefits are more evident in organizations ready to manage the transition from legacy systems and in previously underserved community/SME segments
D2	Bahoo et al. (2024); Egwuonwu et al. (2024); Bayakhmetova et al. (2025)	Big data analytics and artificial intelligence are associated with improved forecasting, risk detection, and financial analysis capacity	The link to decision quality depends on organizational analytical capability, not merely the volume of data held
D3	Yermack (2017); Eghe-Ikhurhe & Bonsu-Assibey (2022); Ogedengbe & Adelowotan (2025)	Blockchain is associated with increased ownership transparency and strengthened governance mechanisms	Effectiveness depends on redesigning governance structures, not merely adding technology; empirical research on this dimension remains relatively limited and concentrated in a handful of countries
D4	Teece et al. (1997); Vial (2019); Warner & Wäger (2019); Ellström et al. (2022); Nadkarni & Prügl (2021); Valdez-Juárez et al. (2024)	Sensing–seizing–transforming capabilities are associated with sustained strategic renewal in digital transformation	Processual in nature and built gradually; digital transformation without this capability tends to have only a small direct effect on financial performance
D5	Lyons & Grable (2021); Kumar et al. (2023); Kusumawardhani et al. (2025); Al-Afeef & Alsmadi (2025); Andreou & Anyfantaki (2021)	Digital financial literacy is associated with more strategic financial behavior and decisions across various country contexts	Functions as a cross-dimensional enabler/moderator, not merely as a dimension standing separately and in parallel

H. Critical-Comparative Discussion: Convergence, Variation, Patterns, Contradictions, and Gaps

This subsection presents a critical-comparative synthesis that does not merely summarize findings by dimension as in the previous subsections, but explicitly compares findings across dimensions and contexts to identify five aspects: points of convergence, contextual variation, recurring patterns, contradictions/tensions, and research gaps.

1) Points of Convergence

Comparing the five dimensions simultaneously, one strong and consistent point of convergence emerges across all 29 sources analyzed: the entire body of literature agrees that digitalization expands organizations' capacity to manage finances more quickly, accurately, and on a data-driven basis, regardless of whether the source is a conceptual review (Gomber et al., 2017; Vial, 2019), bibliometric study (Bahoo et al., 2024; Bayakhmetova et al., 2025), or field study in highly diverse national contexts ranging from Nigeria (Egwuonwu et al., 2024; Eghe-Ikhrhe & Bonsu-Assibey, 2022) to Mexico (Valdez-Juárez et al., 2024) and Cyprus (Andreou & Anyfantaki, 2021). This convergence is consistent with the general picture that digital transformation drives a shift from intuition-based decision-making toward data-driven decision-making, which in turn is associated with improved financial efficiency and accuracy.

2) Contextual Variation and Differences

Behind this convergence, significant contextual variation is found that is not merely noise to be disregarded. First, in dimension D1, the benefits of fintech operate at different units of analysis across studies macro-national financial inclusion in India (Asif et al., 2023) compared with individual SME performance in Indonesia (Dewi & Firdaus, 2023) both of which are positive, but cannot simply be merged into a single generalized claim. Second, in dimension D4, the geographic context in which dynamic capabilities have been studied shifts from qualitative case studies of established firms in Europe (Warner & Wäger, 2019; Ellström et al., 2022) toward large-scale quantitative evidence from SMEs in Latin America (Valdez-Juárez et al., 2024) a shift that enriches cross-context generalization, but also leaves open the question of whether the dynamic-capability routine patterns identified in large European firms hold equally for SMEs in developing countries. Third, in dimension D5, the baseline level of digital financial literacy varies considerably across contexts from a level classified as low in post-crisis Cyprus (37.3 percent of respondents financially competent; Andreou & Anyfantaki, 2021) to one reported as relatively higher among the urban millennial generation in Yogyakarta (Kusumawardhani et al., 2025) indicating that a population's baseline level of digital literacy also shapes how much room for improvement is available for this dimension to function as an enabler.

3) Recurring Patterns Across Dimensions

Beyond convergence and variation, this synthesis also identifies a pattern that recurs consistently across the four technology dimensions. The first pattern is a layered mediation/moderation pattern: in D1 (organizational readiness filters the benefits of fintech; Hughes et al., 2024), D2 (analytical capability filters the benefits of big data; Bahoo et al., 2024), D3 (readiness to redesign governance filters the benefits of blockchain; Yermack, 2017), and D4 (innovation mediates the relationship between digital transformation and performance; Valdez-Juárez et al., 2024), the same pattern recurs: technology provides potential, but its realization is always filtered by organizational capability or readiness that is non-technological in nature. The second pattern is an uneven pattern of literature growth: dimensions D1 and D2 have a much thicker base of bibliometric and empirical studies compared with D3, reflected in the observation by Ogedengbe and Adelowotan (2025) that blockchain-governance research remains concentrated in a handful of developed countries.

4) Contradictions and Tensions

This synthesis also identifies tensions that are important not to overlook. First, there is a gap between the optimism about technology adoption that dominates early-generation fintech, big data, and blockchain studies (Gomber et al., 2017; Yermack, 2017), and the reality depicted by more recent studies showing that the benefits of these technologies are only fully realized when accompanied by adequate dynamic capabilities and human capital (Valdez-Juárez et al., 2024; Hughes et al., 2024). Literature focused on technological impact tends to treat organizational capability and digital literacy as control variables or secondary antecedents, whereas the synthesis in this article shows that both are, in fact, the primary determinants of whether that technological potential is realized. Second, a methodological tension is found: the majority of quantitative studies analyzed (Egwuonwu et al., 2024; Al-Afeef & Alsmadi, 2025; Kusumawardhani et al., 2025; Eghe-Ikhrhe & Bonsu-Assibey, 2022) use cross-sectional designs that report associations at a single point in time, while the conceptual argument that dynamic capabilities are "built gradually" (Teece et al., 1997; Ellström et al., 2022) is fundamentally a longitudinal/processual claim a mismatch between the nature of the hypothesized phenomenon and the research designs available to test it empirically.

5) Research Gaps

Based on the patterns of convergence, variation, and contradiction above, this article identifies three research gaps that are more specific than the initial problem statement in section 1.2. The first gap is thematic: the digital risk governance and cybersecurity dimension (D3) is relatively under-researched empirically compared with the other three technology dimensions of the 29 sources analyzed, only three directly address D3 (Yermack, 2017; Eghe-Ikhrhe & Bonsu-Assibey, 2022; Ogedengbe & Adelowotan, 2025), and all three likewise note similarly limited geographic coverage, such that understanding of how organizations manage digital risk strategically not merely technically still requires further research attention. The second gap is geographic: empirical evidence on D4 remains dominated by qualitative case studies in Europe and a single quantitative study in Mexico, while D1 and D5 have a broader distribution (Nigeria, India, Indonesia, Jordan, Cyprus) this unevenness makes cross-regional generalization about how dynamic capabilities form in Asian or African contexts still speculative. The third gap is methodological: as elaborated in section 4.8.4, the integrative five-dimension framework proposed in this article including the positioning of D4 as a foundation and D5 as

Strategic Financial Management in the Digital Era: Framework and Empirical Evidence

a cross-cutting enabler has never been tested empirically and simultaneously in a single model; all existing support is indirect, derived from a synthesis of studies that each test only a small portion of the framework.

V. CONCLUSION

A. Summary of Findings

This article develops an integrative conceptual framework of strategic financial management in the digital era based on a critical-comparative synthesis of 29 international literature sources. Five dimensions were identified: digital financial technology infrastructure (D1), data-driven decision-making (D2), digital risk governance and cybersecurity (D3), dynamic capabilities and strategic agility (D4), and digital financial literacy and human capital (D5). The synthesis shows that D4 functions as the meta-capability foundation underpinning D1–D3, while D5 functions as a cross-cutting enabling factor that moderates the effectiveness of all four rather than as a dimension standing on equal footing. Digitalization is consistently associated with financial management effectiveness across various national contexts, but the realization of these benefits is always filtered by organizational capability and the digital-financial competence of its human resources.

B. Theoretical Implications

Theoretically, this article contributes by explicitly linking the five dimensions of strategic financial management in the digital era to different theoretical traditions: the resource-based view and dynamic capabilities (Barney, 1991; Teece et al., 1997) for D1 and D4, the technology-organization-environment framework (Tornatzky & Fleischer, 1990) for D1, the analytical-capability perspective for D2, agency theory (Jensen & Meckling, 1976) for D3, and human capital theory (Becker, 1964) for D5 such that the resulting framework is not merely descriptive, but has a layered theoretical foundation at each of its dimensions. This contribution bridges financial-technology research that has tended to develop in fragmented strands (fintech, big data/AI, blockchain, dynamic capabilities, and digital financial literacy).

C. Practical Implications

For practitioners and policymakers, this synthesis indicates that investment in digital financial technology infrastructure (D1), data analytics (D2), or blockchain (D3) alone, without accompanying strengthening of organizational dynamic capabilities (D4) and the digital financial literacy of its human resources (D5), risks failing to produce optimal financial performance improvement as shown by the findings of Valdez-Juárez et al. (2024) that digital transformation without supporting capabilities produces only a small direct effect. The implication is that organizations including Islamic higher-education institutions currently undertaking the digitalization of their financial governance are advised to place the development of dynamic capabilities and digital financial literacy programs as a priority equal to technology investment itself, rather than as a secondary afterthought.

D. Research Limitations

This article has a number of limitations. First, as a narrative-thematic literature review, this article does not formally apply a systematic review (PRISMA) protocol, such that full traceability of documents excluded during the screening stage cannot be claimed, as noted in section 2.3. Second, the sources analyzed are dominated by English-language literature published in international journals, such that literature in other languages or published through non-academic channels may not yet be covered. Third, the proposed integrative framework (Figure 1) is the result of a qualitative synthesis and has not been tested empirically and simultaneously, such that it remains propositional in nature and requires further testing, as elaborated in section 5.5.

E. Future Research Agenda

Based on the gaps identified in section 4.8.5, future research is advised to pursue four directions that are more concrete than the general suggestions in the previous version of this article.

First, cross-country studies that specifically compare patterns of dynamic-capability formation (D4) among SMEs in Southeast Asia and Sub-Saharan Africa with the patterns more extensively documented in Europe and Latin America, given the geographic distribution gap identified in this dimension.

Second, longitudinal research tracing how dynamic capabilities and digital financial literacy co-evolve over time for example, by following the same cohort of organizations over three to five years to test the processual claim that dynamic capabilities are “built gradually,” a claim so far supported only by cross-sectional evidence.

Third, multiple case studies focusing specifically on the digital risk governance and cybersecurity dimension (D3) in the financial services sector across three to four countries with differing levels of regulatory maturity, to fill the most prominent thematic gap identified in this synthesis.

Fourth, and most importantly, simultaneous empirical testing of the integrative five-dimension framework proposed in Figure 1 for example, through a large-scale cross-country survey using structural equation modeling (SEM or PLS-SEM) that explicitly tests the role of D4 as an antecedent/foundation and D5 as a cross-dimensional moderator of the relationship between D1–D3 and strategic financial performance — so that the conceptual propositions that have so far been supported only indirectly through qualitative synthesis can be tested directly and simultaneously.

REFERENCES

- 1) Ahmad, I. (2024). The role of strategic financial management in enhancing corporate value and competitiveness in the digital economy. *Economía Chilena*, 27, 1–8.
- 2) Al-Afeef, M. A., & Alsmadi, A. A. (2025). Digital empowerment: Unraveling the impact of digital literacy on financial mastery. *Discover Sustainability*, 6(1), 1–11. <https://doi.org/10.1007/s43621-025-01137-5>
- 3) Andreou, P. C., & Anyfantaki, S. (2021). Financial literacy and its influence on internet banking behavior. *European Management Journal*, 39(5), 658–674.
- 4) Asif, M., Khan, M. N., Tiwari, S., Wani, S. K., & Alam, F. (2023). The impact of fintech and digital financial services on financial inclusion in India. *Journal of Risk and Financial Management*, 16(2), 122.
- 5) Bahoo, S., Cucculelli, M., Goga, X., & Mondolo, J. (2024). Artificial intelligence in finance: A comprehensive review through bibliometric and content analysis. *SN Business & Economics*, 4(2), Article 23. <https://doi.org/10.1007/s43546-023-00618-x>
- 6) Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
- 7) Bayakhmetova, A., Rudenko, L., Krylova, L., Suleimenova, B., Niyazbekova, S., & Nurpeisova, A. (2025). Artificial intelligence in financial behavior: Bibliometric ideas and new opportunities. *Journal of Risk and Financial Management*, 18(3), 159. <https://doi.org/10.3390/jrfm18030159>
- 8) Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. Columbia University Press.
- 9) Dewi, N. P. S., & Firdaus, M. R. (2023). Digital accounting in e-commerce: Does it really improve SME financial performance? *Asian Journal of Business and Accounting*, 16(1), 167–190.
- 10) Egwuonwu, A., Mendy, J., Smart-Oruh, E., & Egwuonwu, A. (2024). Drivers of big data analytics' adoption and implications of management decision-making on big data adoption and firms' financial and nonfinancial performance: Evidence from Nigeria's manufacturing and service industries. *IEEE Transactions on Engineering Management*. Advance online publication.
- 11) Eghe-Ikhurhe, G. O., & Bonsu-Assibey, M. O. (2022). The effects of blockchain technology on corporate governance: Evidence from emerging economy. *Management Dynamics in the Knowledge Economy*, 10(3).
- 12) Ellström, D., Holtström, J., Berg, E., & Josefsson, C. (2022). Dynamic capabilities for digital transformation. *Journal of Strategy and Management*, 15(2), 272–286. <https://doi.org/10.1108/JSMA-04-2021-0089>
- 13) Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. *The Journal of Finance*, 25(2), 383–417.
- 14) 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.
- 15) Hughes, L., Seddon, J. J. M., & Dwivedi, Y. K. (2024). Disruptive change within financial technology: A methodological analysis of digital transformation challenges. *Journal of Information Technology*, 39(4), 756–783. <https://doi.org/10.1177/02683962231219512>
- 16) Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360.
- 17) Kumar, P., Pillai, R., Kumar, N., & Tabash, M. I. (2023). The interplay of skills, digital financial literacy, capability, and autonomy in financial decision making and well-being. *Borsa Istanbul Review*, 23(1), 169–183.
- 18) Kusumawardhani, R., Prihatin, W., Damanik, J. M., & Mubarakah, S. (2025). Digital financial literacy and consumer financial behavior in emerging markets: Evidence from Indonesia. *Jurnal Ekonomi dan Bisnis*, 28(2), 491–512. <https://doi.org/10.24914/jeb.v28i2.15565>
- 19) Lyons, A. C., & Grable, J. E. (2021). A methodological overview to defining and measuring “digital” financial literacy. *Financial Planning Review*, 4(2), e1113.
- 20) Nadkarni, S., & Prügl, R. (2021). Digital transformation: A review, synthesis, and opportunities for future research. *Management Review Quarterly*, 71, 233–341. <https://doi.org/10.1007/s11301-020-00185-7>
- 21) Ogedengbe, F. A., & Adelowotan, M. O. (2025). Revolutionising corporate governance: Blockchain's transformative impact and potential. *Frontiers in Blockchain*, 8, Article 1654633. <https://doi.org/10.3389/fbloc.2025.1654633>
- 22) Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.039>
- 23) Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533.
- 24) Tornatzky, L. G., & Fleischer, M. (1990). *The processes of technological innovation*. Lexington Books.

Strategic Financial Management in the Digital Era: Framework and Empirical Evidence

- 25) Valdez-Juárez, L. E., Ramos-Escobar, E. A., Hernández-Ponce, O. E., & Ruiz-Zamora, J. A. (2024). Digital transformation and innovation, dynamic capabilities to strengthen the financial performance of Mexican SMEs: A sustainable approach. *Cogent Business & Management*, 11(1), Article 2318635. <https://doi.org/10.1080/23311975.2024.2318635>
- 26) Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *The Journal of Strategic Information Systems*, 28(2), 118–144. <https://doi.org/10.1016/j.jsis.2019.01.003>
- 27) Warner, K. S. R., & Wäger, M. (2019). Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal. *Long Range Planning*, 52(3), 326–349.
- 28) Yang, Y. (2024). A review of the literature on fintech and enterprise digital transformation. *Highlights in Business, Economics and Management*, 45, 913–918. <https://doi.org/10.54097/dd2e7602>
- 29) Yermack, D. (2017). Corporate governance and blockchains. *Review of Finance*, 21(1), 7–31. <https://doi.org/10.1093/rof/rfw074>



There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non-Commercial 4.0 International (CC BY-NC 4.0) (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.