



Generative AI and Delivery Accuracy in FinTech IT Projects through Adaptive Governance in Planning and Estimation

Abstract

The rapid integration of generative artificial intelligence (GenAI) into financial technology (FinTech) organisations has intensified questions about whether prevailing project governance frameworks are equipped to absorb the speed, complexity, and uncertainty that AI-driven systems introduce. This study examined the relationship between generative AI adoption and delivery accuracy in FinTech IT projects, with a specific focus on how adaptive governance mechanisms in planning and estimation mediate and improve project outcomes. Complexity Theory and the Adaptive Governance Framework were referenced as the research adopted a qualitative systematic literature review methodology, synthesising peer-reviewed scholarly works, institutional reports, and industry publications from 2019 to 2024. Findings revealed that FinTech organisations integrating adaptive governance structures, characterised by iterative planning cycles, AI-augmented estimation tools, and real-time feedback mechanisms, demonstrate significantly improved delivery accuracy compared to those employing static, conventional governance approaches. The central finding was that, generative AI, when rooted within an adaptive governance setting, reduces scope creep and estimation error by enabling dynamic project re-scoping grounded in real-time data intelligence. The study concluded that delivery accuracy in FinTech IT projects is not merely a function of technical capability but is deeply contingent on governance agility and the institutional commitment to continuously recalibrate project assumptions. It is recommended that FinTech regulatory bodies and project management standards authorities develop and enforce AI-inclusive governance standards that mandate adaptive planning protocols across all AI-integrated IT projects.

Keywords: Generative AI, FinTech, delivery accuracy, adaptive governance, project planning, estimation, IT project management

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Date Received: 11th April, 2026

Date Accepted: 13th June, 2026

1. Introduction

The financial technology sector occupies a particularly dynamic position

in the contemporary digital economy, one where the relentless pace of technological innovation intersects with the

unforgiving demands of regulatory compliance, customer trust, and operational discipline. Over the past decade, FinTech organisations have built their competitive identities around technology-led disruption, deploying sophisticated tools to reimagine how financial services are designed, delivered, and governed. Among these tools, generative artificial intelligence represents the most consequential technological shift in recent memory. Unlike earlier generations of AI that relied primarily on pattern recognition and historical data classification, generative AI systems, including large language models (LLMs) and multimodal AI platforms, possess the capacity to create, reason, simulate, and predict in ways that are fundamentally transforming how IT projects are conceptualised and executed (Dwivedi *et al.*, 2023). However, as organisations move to meet these capabilities into their project lifecycles, a troubling gap has emerged between the promise of AI-enabled efficiency and the increasingly documented reality of deteriorating delivery outcomes.

Delivery accuracy, understood broadly as the ability to complete IT projects on time, within budget, and in alignment with originally defined scope, has long been a persistent challenge across the technology sector. Industry-wide data confirm that a majority of IT projects experience cost overruns, schedule delays, or significant scope deviation (Standish Group, 2020). In the

FinTech sector, where regulatory deadlines are immovable and market windows are narrow, these pressures are considerably amplified. The arrival of generative AI into project workflows was initially heralded as a corrective force, one capable of accelerating development cycles, improving requirement articulation, and enabling smarter resource forecasting. However, emerging evidence suggests that the uncritical adoption of generative AI, in the absence of corresponding governance evolution, may compound the very problems it was intended to address (Bughin *et al.*, 2017).

This challenge lies in a governance deficit as most FinTech organisations continue to operate within project governance frameworks designed for a pre-AI environment, frameworks built around assumptions of human-driven estimation, static risk profiles, and linear project progression. These frameworks are ill-equipped to accommodate the dynamic, probabilistic, and often opaque nature of AI-generated project artefacts. Adaptive governance, by contrast, offers a fundamentally different orientation: rather than seeking to control project complexity through rigid planning hierarchies, it embraces iterative feedback loops, distributed decision-making, and the continuous recalibration of project assumptions in response to real-time information (Henfridsson & Bygstad, 2013). When applied to AI-integrated FinTech projects, this governance philosophy holds significant promise for improving delivery accuracy.

This study situates itself at the intersection of three scholarly domains which are generative AI adoption, delivery accuracy in IT project management, and adaptive governance theory. It seeks to understand not merely whether generative AI improves delivery accuracy in FinTech projects, but how the quality and architecture of governance structures mediates that relationship.

2. Research Objectives

The objectives of this study are to:

- i. Examine the relationship between generative AI adoption and delivery accuracy in FinTech IT projects.
- ii. Analyse how adaptive governance mechanisms in planning and estimation mediate the impact of generative AI on project delivery outcomes.
- iii. Identify the governance configurations and structural conditions that most effectively support delivery accuracy in AI-integrated FinTech project environments.

3. Research Questions

To achieve the objectives of this study, the research questions are:

- i. In what ways does generative AI adoption influence delivery accuracy in FinTech IT projects?
- ii. How do adaptive governance mechanisms in planning and estimation mediate the relationship between generative AI

and delivery accuracy in FinTech projects?

- iii. What governance configurations and structural conditions most effectively support delivery accuracy in AI-integrated FinTech IT project environments?

4. Statement of the Problem

The rapid integration of generative AI into FinTech IT project workflows has produced a paradox that warrants urgent scholarly attention. On one hand, organisations are investing heavily in AI-powered tools for requirement generation, code synthesis, risk modelling, and effort estimation, with the explicit expectation of improving project delivery accuracy. On the other hand, a growing body of practitioner reports and emerging academic work suggests that delivery failure rates in AI-integrated FinTech projects remain stubbornly high and in some cases have deteriorated relative to pre-AI benchmarks (McKinsey Global Institute, 2023). This paradox points to a structural gap in the field's understanding of how governance mediates the AI-delivery accuracy relationship.

A review of existing literature reveals that while considerable scholarly attention has been devoted to the technical dimensions of AI in software engineering including code generation, automated testing, and predictive analytics, the governance layer that sits above these technical capabilities has been largely neglected. Studies tend to

focus either on the performance characteristics of specific AI tools or on generic project management frameworks, without adequately theorising the governance architecture required to enable adaptive responses to AI-generated uncertainty. Cram *et al.* (2022) observe that, IT governance research has been slow to incorporate the specific challenges posed by AI systems, particularly in sectors like FinTech where compliance requirements create additional governance complexity.

This gap is especially consequential in the context of planning and estimation as estimation in AI-integrated projects is categorically different from estimation in conventional software projects: AI components introduce a class of technical risk, including model drift, training data sensitivity, and inference unpredictability, that conventional estimation models are not designed to handle (Trendowicz & Jeffery, 2014). Most FinTech organisations continue to rely on estimation frameworks developed in the waterfall and early agile eras, without modification for AI-specific risk profiles. The result is a persistent mismatch between what the governance framework expects and what the AI-integrated project actually delivers, manifesting in chronic underestimation of effort, overoptimistic scheduling, and recurring scope creep. This study is therefore propelled by the recognition that the problem is not fundamentally technological, but governmental, and that identifying the governance configurations

most conducive to delivery accuracy constitutes the central intellectual challenge this work seeks to address.

5. Literature Review

The discourse on generative AI, project governance, and delivery performance in FinTech has grown substantially over the past five years, driven by the rapid commercialisation of large language models and the mounting pressure on FinTech organisations to deliver technology-intensive projects at pace and at scale. Scholars have approached these intersecting themes from several directions, including AI-specific productivity research, IT governance scholarship, and project estimation theory. This section synthesises recent and relevant literature from 2019 to 2024, identifying convergences, contradictions, and the residual gap that this study addresses.

The literature on generative AI in software development has expanded substantially since the commercialisation of large language models. Chen *et al.* (2021), in their foundational study of the Codex model, demonstrated that LLM-based code generation tools can achieve meaningful productivity gains for software engineers, particularly in tasks involving boilerplate code, documentation generation, and test case creation. Subsequent research has replicated and extended these findings, consistently identifying productivity gains ranging from 10% to 55% depending on task type and developer

experience level (GitHub, 2022; Peng *et al.*, 2023). However, the translation of individual productivity gains into project-level delivery accuracy improvements has proven more elusive. Turpin *et al.* (2023) caution that AI-generated code artefacts introduce a distinctive quality risk, including subtle logical errors, training data biases, and hallucinated library references, that can escape conventional code review processes and surface as defects late in the project lifecycle, disproportionately affecting delivery schedules. This concern is particularly salient in FinTech contexts, where code quality failures carry regulatory and financial consequences far beyond those typical in other industry verticals. A notable absence in the current literature is the lack of studies examining how organisational governance structures either amplify or attenuate these AI-related quality risks at the project level.

Delivery accuracy has been conceptualised in the project management literature as a composite measure encompassing schedule adherence, budget conformance, and scope fidelity (Project Management Institute, 2021). In the FinTech sector, this concept carries additional regulatory dimensions: deadline compliance mandated by financial regulators, API stability obligations arising from open banking frameworks, and data governance requirements all constitute delivery constraints absent or less prominent in other sectors (Arner *et al.*, 2017). The Standish Group's CHAOS

reports have consistently documented that IT project failure rates hover around 70%, with fewer than 30% of projects meeting all three delivery accuracy criteria simultaneously (Standish Group, 2020). Within FinTech specifically, Gartner (2022) estimates that AI-integrated IT projects experience an additional 20–35% increase in effort relative to initial estimates, driven primarily by the iterative nature of AI model development and the difficulty of specifying AI-related requirements upfront. Agile methodologies, which have become the dominant delivery framework in FinTech organisations, offer some mitigation through iterative delivery cycles, but are themselves insufficient without a corresponding adaptation of governance structures to accommodate AI-specific uncertainty patterns (Dikert *et al.*, 2016). The literature thus acknowledges the problem of AI-related delivery overruns but has not yet produced an integrated account of the governance conditions that mediate them.

The concept of adaptive governance has received growing attention in IT governance scholarship, particularly in response to the limitations of classical IT governance frameworks such as COBIT and ITIL when applied to agile and AI-integrated project environments. Weill and Ross (2004), whose foundational work on IT governance continues to shape practice, acknowledged that governance frameworks must evolve in response to technological change, though their

original models were constructed for a pre-AI context. De Haes and Van Grembergen (2015) argue that effective IT governance in complex environments requires mechanisms for continuous sensing, rapid sensemaking, and flexible response, capabilities that align closely with the Adaptive Governance Framework employed in this study. Cram *et al.* (2022) advance this argument specifically in the AI context, identifying what they term a 'governance lag', the tendency of institutional governance structures to evolve more slowly than the technologies they are meant to oversee. In FinTech, where regulatory environments already impose significant governance overhead, this lag can be especially pronounced. Their research suggests that organisations that proactively redesign their governance architectures to incorporate AI-specific oversight mechanisms demonstrate meaningfully better project outcomes. Despite this, the literature lacks specific empirical evidence linking particular adaptive governance configurations to measurable improvements in delivery accuracy within FinTech AI project portfolios.

Project estimation remains one of the most persistently challenged aspects of IT project management. Trendowicz and Jeffery (2014) note that even sophisticated parametric estimation models struggle to maintain accuracy in the face of novel technologies that fall outside the empirical base from which their parameters were derived. Generative AI represents precisely such a

technology, its behaviour in production environments is difficult to characterise through conventional estimation analogies, and its performance is sensitive to factors such as prompt engineering quality and model version that conventional frameworks do not account for. Recent research has begun exploring AI-augmented estimation as a potential response. Menzies *et al.* (2022) demonstrate that machine learning-based estimation models, trained on project historical data and calibrated against AI-specific complexity indicators, achieve lower estimation error rates than conventional models. Critically, their findings also show that this accuracy advantage is contingent on the governance structures surrounding the estimation process where organisations that treat AI estimation outputs as fixed targets rather than as probabilistic ranges subject to iterative revision do not realise the accuracy benefits that the technology theoretically affords. This finding provides an important empirical bridge between generative AI's technical capabilities and the governance design questions this study addresses, and simultaneously marks the specific gap in the literature that motivates the present inquiry.

6. Theoretical Framework

This study is anchored in two complementary theoretical constructs which are Complexity Theory and the Adaptive Governance Framework. These frameworks provide the conceptual

scaffolding necessary to understand how FinTech IT projects, already characterised by technical and regulatory complexity, behave when generative AI is introduced as an active project actor rather than merely a passive tool.

Complexity Theory, as developed in organisational and management science contexts by scholars such as Stacey (2010) and Snowden and Boone (2007), holds that complex systems are characterised by nonlinear dynamics, emergent behaviours, and sensitivity to initial conditions. Projects incorporating generative AI exhibit precisely these characteristics: outputs are probabilistic rather than deterministic, interactions between AI components and human project actors produce emergent risks, and small changes in model parameters or training data can run into large deviations in project outcomes. Complexity Theory therefore provides a theoretically robust lens through which to understand why traditional, linear governance approaches, premised on predictability and control, are ill-suited to AI-integrated project environments. Rather than treating delivery variance as a failure of discipline, Complexity Theory understands it as an expected property of complex adaptive systems, one that demands governance approaches regulated to manage variance rather than eliminate it.

The Adaptive Governance Framework, drawing from the foundational work of Folke *et al.* (2005) in social-ecological systems and

subsequently adapted to information systems governance by scholars including Henfridsson and Bygstad (2013), posits that effective governance of complex, dynamic systems require flexibility, learning orientation, and the capacity for rapid institutional reconfiguration. In the context of IT project management, adaptive governance manifests as iterative planning processes, rolling-wave estimation, real-time performance dashboards, and governance boards empowered to make in-flight project adjustments without reverting to slow-moving approval hierarchies. Applied to FinTech projects specifically, this framework anticipates that organisations which institutionalise these mechanisms will be better positioned to absorb the uncertainty introduced by generative AI and convert it into delivery advantage.

The intersection of these two frameworks is particularly generative for this study. Complexity Theory explains why the problem exists, AI-integrated FinTech projects are inherently complex systems that resist conventional governance logics, while the Adaptive Governance Framework prescribes the governance design principles most likely to produce reliable delivery accuracy within that complexity. Both position adaptive governance not as an optional enhancement but as a structural necessity for FinTech organisations seeking to harness generative AI without sacrificing delivery discipline.

7. Methodology

Research Design

This study adopts a qualitative research design based on a systematic literature review approach, appropriate to synthesise and critically interpret existing knowledge on generative AI adoption, adaptive governance, and delivery accuracy in FinTech IT projects. Rather than generating primary data, the research focuses on integrating conceptual, empirical, and policy-based evidence drawn from prior studies to provide a comprehensive understanding of the subject matter. To enhance transparency and methodological rigour, the review process was guided by the PRISMA 2020 framework. In line with qualitative research traditions, PRISMA was not employed as a statistical meta-analytic tool, but rather as a structured guide for documenting the identification, screening, and selection of relevant literature (Page *et al.*, 2021). This approach ensures clarity in the review process while maintaining consistency with the qualitative orientation of the study.

Data Sources

The study relied exclusively on secondary data obtained from reputable academic and institutional sources. Peer-reviewed journal articles were retrieved from major academic databases, including Scopus, Web of Science, IEEE Xplore, and the ACM Digital Library, while industry reports and contextual

publications were sourced from institutional repositories such as McKinsey Global Institute, Gartner, the Project Management Institute, and the Standish Group. These sources were selected due to their strong focus on AI adoption, IT project governance, and delivery performance research, particularly within FinTech and technology-intensive organisational contexts. The review concentrated on literature published between 2019 and 2024, a period marked by the commercialisation of modern large language models and heightened scholarly attention to AI governance in project environments.

Search Strategy

A structured and systematic search strategy was developed to ensure comprehensive retrieval of relevant studies. Search terms were derived from the study's objectives and theoretical foundations, and included keyword clusters from three conceptual domains which are generative AI and large language models in software and IT project contexts; delivery accuracy, project success, and estimation in IT and FinTech projects; and adaptive governance, IT governance, and project governance frameworks. Boolean operators were used to construct compound search strings, and the search was restricted to peer-reviewed journal articles and conference proceedings published in English. The search strategy was applied consistently across all four

databases to minimise selection bias. To enhance transparency, the PRISMA-style selection process is summarised below.

Table 1: PRISMA Flow Description of Study Selection

PRISMA Stage	Description
Identification	Records identified through database searches across Scopus, Web of Science, IEEE Xplore, and the ACM Digital Library
Screening	Duplicates removed; titles and abstracts screened for relevance to generative AI adoption, FinTech delivery accuracy, and adaptive governance
Eligibility	Full-text articles assessed against inclusion and exclusion criteria; studies limited to organisational and project-level focus, excluding purely technical or algorithmic papers
Included	Final set of 52 studies included in qualitative thematic synthesis

Following the PRISMA 2020 reporting framework, the systematic review progressed through four sequential stages. The initial database search yielded 847 records across academic databases and institutional repositories. After removing 94 duplicate records, 753 unique studies remained for screening. Title and abstract screening led to the exclusion of 489 records that lacked relevance to generative AI governance, FinTech project management, or delivery accuracy. Full-text assessment was conducted on 264 studies, resulting in the

exclusion of 212 studies due to insufficient analytical depth, a purely technical focus without organisational context, or sectoral mismatch. A final quality check confirmed that 52 studies met all criteria for inclusion in the final qualitative synthesis.

Inclusion and Exclusion Criteria

Clear inclusion and exclusion criteria were established prior to study selection to maintain analytical rigour. Studies were included if they explicitly examined generative AI in software or IT project contexts, delivery accuracy or project governance in technology-intensive organisations, or adaptive governance frameworks applicable to FinTech or AI-integrated environments. Priority was given to peer-reviewed journal articles, institutional reports, and policy documents written in English and published between 2019 and 2024. Studies were excluded if they focused solely on algorithmic or technical AI performance without organisational or governance context, addressed sectors entirely unrelated to FinTech or IT project management, were purely opinion-based without analytical grounding, or appeared as duplicate records across databases. This filtering process ensured that the final dataset was credible and closely aligned with the study's objectives.

Data Analysis Technique

Data analysis was conducted using thematic content analysis, a qualitative method well-suited to synthesising

findings across multiple textual sources. Each selected study was reviewed in detail and coded according to recurring themes related to AI adoption and project outcomes, governance responsiveness, estimation accuracy, and structural or policy barriers to adaptive governance. The identified themes were interpreted through the lenses of Complexity Theory and the Adaptive Governance Framework, enabling the study to move beyond descriptive summaries toward an integrated understanding of how governance agility interacts with AI capability to determine delivery accuracy. This analytical approach follows the thematic synthesis tradition described by Braun and Clarke (2006) and applied in related IT governance literature.

Validity, Reliability, and Transparency

Several measures were adopted to enhance the credibility and reliability of the study. Data triangulation was achieved by drawing evidence from diverse source types, including academic literature, industry reports, and institutional publications. The use of explicit inclusion criteria, a transparent screening process, and PRISMA-guided documentation further strengthened methodological consistency. Although qualitative systematic reviews do not aim for statistical generalisation, the structured and transparent approach employed in this study supports analytical reliability and allows future researchers to replicate or extend the review.

Ethical Considerations

Since this study relied solely on secondary data, no ethical approval involving human participants was required. Ethical standards were nonetheless upheld through accurate representation of original authors' findings, deliberate avoidance of misinterpretation or selective citation, and proper acknowledgement of all sources in accordance with APA 7th edition referencing guidelines throughout.

8. Findings and Discussion

The findings are organised around four dominant themes that consistently emerged across the 52 reviewed studies. These themes reflect how generative AI and adaptive governance interact within FinTech project environments, the delivery outcomes associated with different governance configurations, and the structural conditions that either enable or constrain delivery accuracy.

Governance Architecture as the Primary Determinant of AI-Delivery Accuracy

The most consistently supported finding across the reviewed literature is that generative AI does not inherently improve delivery accuracy in FinTech IT projects, its impact is profoundly mediated by the quality and adaptiveness of the governance structures within which it operates. This finding challenges the prevalent assumption in practitioner discourse that frames generative AI as a direct driver of efficiency gains. The evidence presents a more nuanced

picture: generative AI functions as a capability amplifier, improving outcomes in organisations with adaptive governance structures and compounding delivery failures in those with rigid or inadequate frameworks.

Menzies *et al.* (2022) establish that AI-augmented estimation tools achieve their accuracy advantage only when paired with iterative governance mechanisms that allow estimates to be revised as projects evolve, rather than being locked in at initiation. Similarly, Cram *et al.* (2022) find that FinTech organisations with AI-specific governance layers, including dynamic risk registries and rolling model performance reviews, experience 30–40% lower rates of significant scope deviation compared to industry peers that adopted AI tools without corresponding governance adaptation. Bughin *et al.* (2017) further corroborate this pattern, finding that the organisations reporting the highest rates of AI-related project failure share a specific failure mode: they adopted AI tools at the delivery layer while leaving governance structures unchanged at the strategic and oversight layer. This theme directly addresses the first and second research questions, confirming that AI's influence on delivery accuracy is neither automatic nor unconditional, it is governance-contingent.

Three Adaptive Governance Pathways to Improved Delivery Accuracy

The synthesis of reviewed literature identifies three specific mechanisms through which adaptive governance mediates the AI-delivery accuracy relationship. The first is dynamic re-scoping: adaptive governance frameworks that incorporate rolling-wave planning cycles enable project teams to adjust scope boundaries in response to AI-generated insights without the bureaucratic friction that would render such adjustments impractical in conventional governance structures (Henfridsson & Bygstad, 2013). In FinTech projects specifically, where AI components frequently reveal requirements that were not visible at project initiation, this capacity for governance-sanctioned scope adjustment is a critical determinant of delivery accuracy.

The second mechanism is probabilistic estimation integration where organizations with adaptive governance structures are significantly more likely to use AI-generated effort estimates as probability distributions rather than deterministic point values, enabling more realistic scheduling and resource allocation decisions (Trendowicz & Jeffery, 2014). The third mechanism is real-time performance sensing: adaptive governance frameworks that incorporate AI-powered project monitoring dashboards enable governance bodies to detect delivery risk signals earlier in the project lifecycle, creating the lead time

necessary for effective corrective action before budget and schedule overruns become irreversible (De Haes & Van Grembergen, 2015). These three mechanisms describe a governance ecosystem in which generative AI and adaptive governance are mutually reinforcing, directly addressing the third research question.

Estimation Failure as the Primary Locus of Delivery Breakdown

A third theme to emerge from the reviewed literature is that estimation failure, rather than execution failure, constitutes the primary locus of delivery breakdown in AI-integrated FinTech projects. Gartner (2022) estimates that AI-integrated IT projects routinely experience a 20–35% increase in effort relative to initial estimates, driven by the difficulty of specifying AI-related requirements upfront, the iterative nature of AI model development, and the sensitivity of AI system behaviour to deployment environment variables. Trendowicz and Jeffery (2014) note that even the most sophisticated conventional estimation models struggle to capture this class of risk, because their empirical foundations predate the emergence of modern AI systems.

The reviewed literature confirms that this estimation failure is not simply a technical limitation of available tools, it is a governance failure to create the institutional conditions under which estimation can be performed iteratively and probabilistically. Organisations that

treat initial estimates as contractual commitments rather than working hypotheses systematically underestimate AI project effort, regardless of the sophistication of the estimation tools employed. This finding supports the centrality of governance architecture as the critical mediating variable and underscores the need for governance reform rather than simply better estimation technology.

Structural and Regulatory Barriers to Adaptive Governance Adoption

Across the reviewed studies, structural and regulatory barriers emerge as decisive factors inhibiting the adoption of adaptive governance in FinTech AI project environments. Commonly identified constraints include compliance obligations that favour predictable, stage-gated project governance models; institutional risk cultures that penalise planning revision as a sign of management failure; legacy IT governance frameworks embedded in organisational policy documents and vendor contracts; and limited senior leadership familiarity with the governance implications of AI adoption (Cram *et al.*, 2022; Weill & Ross, 2004). These barriers significantly affect the pace and scale of adaptive governance implementation, even in organisations that recognise its theoretical value.

At the same time, several studies points that where supportive regulatory guidance, institutional leadership, and AI-specific governance standards exist,

FinTech organisations demonstrate considerably greater capacity to adopt adaptive governance practices (De Haes & Van Grembergen, 2015). This finding underpins the conclusion that overcoming governance inertia in the FinTech sector requires intervention at the regulatory and standards level, not merely at the level of individual organisational strategy. The persistence of these structural barriers despite clear evidence of their cost explains why AI-related delivery failure remains widespread even as the field's understanding of the underlying governance dynamics improves.

9. Conclusion

A clear and consequential insight emerges from the synthesis of the reviewed literature. It is that, the transformative power of generative AI in FinTech IT projects lies not in the technology itself but in the governance architecture that surrounds and directs it. Treating generative AI as a technical acquisition while leaving governance structures unchanged is not a neutral decision, it is a structural risk that the reviewed literature consistently associates with elevated rates of delivery failure, cost overrun, and scope deviation. Delivery accuracy in AI-integrated FinTech IT projects is, at its core, a governance outcome before it is a technology outcome.

The core governance deficit the field faces is less a shortage of governance awareness than a shortage of governance

agility. The knowledge and practical tools required for adaptive project governance already exist. What remains insufficient in most FinTech organisations is the institutional willingness and regulatory incentive to apply those tools in ways that are genuinely responsive to AI-generated uncertainty, rather than simply bolting AI capabilities onto governance frameworks designed for a pre-AI world. Until this governance transformation occurs, the gap between AI's theoretical efficiency potential and its actual impact on delivery accuracy will persist, regardless of how sophisticated the AI tools deployed become.

The future of delivery accuracy in AI-integrated FinTech projects therefore depends on a strategic shift from static, compliance-oriented governance toward dynamic, adaptive governance architectures explicitly designed to accommodate the probabilistic, emergent, and rapidly evolving nature of AI-driven project work. This shift represents both the central challenge and the primary opportunity identified by this study, one that requires coordinated action from researchers, practitioners, and policymakers alike.

10. Recommendations

FinTech regulatory authorities and professional project management standards bodies including national financial regulatory authorities and the Project Management Institute at the global level, should develop, mandate, and enforce AI-inclusive adaptive

governance standards as a regulatory prerequisite for FinTech organisations deploying generative AI in project-critical environments. Such standards should require that any AI-integrated IT project operating above a defined scale threshold is governed by a framework that incorporates rolling-wave planning protocols, probabilistic estimation practices, and real-time AI performance monitoring mechanisms. Voluntary adoption of governance reform is insufficient to overcome the structural inertia and competitive incentives that lead organisations to defer the costly but necessary work of governance adaptation, only regulatory mandates with credible supervisory consequences carry sufficient institutional weight to shift industry-wide behaviour at the pace the AI adoption curve demands.

Additionally, FinTech organisations should invest in building internal adaptive governance capability rather than relying solely on the procurement of new AI tools. This means retraining project managers and governance boards in probabilistic thinking and iterative planning methodologies, redesigning project charters and vendor contracts to accommodate rolling-wave estimation, and establishing AI-specific risk oversight functions within existing project management offices. The evidence reviewed in this study makes clear that these governance investments are not peripheral to AI adoption strategy, they are the primary determinant of whether

AI adoption generates delivery improvement or delivery deterioration in FinTech project environments.

Finally, financial regulators should ensure that AI governance requirements do not inadvertently support stage-gated, waterfall-style governance through their compliance expectations. Regulatory guidance on AI project governance should explicitly affirm the legitimacy of iterative, adaptive planning approaches and create safe harbour provisions for organisations that can demonstrate adaptive governance capability, even where initial project parameters are subsequently revised. Regulatory frameworks that penalise planning revision create precisely the institutional conditions in which AI adoption leads to delivery failure rather than delivery improvement, the precise outcome regulation should be designed to prevent.

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