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How Legacy Firms Orchestrate Digital Platform Transitions without Disrupting Core Operations: Strategic Choices, Capability-Building, and Governance

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Introduction

In the era of rapid technological advancement, legacy firms—long-established organizations with deeply entrenched business models and operational processes—are compelled to adapt to the evolving digital landscape. The proliferation of digital platforms, characterized by multisided markets, network effects, and data-driven value creation, has fundamentally altered competitive dynamics across industries. For legacy firms, transitioning to digital platforms presents both existential risks and transformative opportunities. However, such transitions are fraught with challenges, particularly the risk of disrupting core operations that underpin the firm's current value and market position.

This research paper investigates how legacy firms orchestrate digital platform transitions while minimizing disruption to their established operations. The analysis draws on longitudinal case studies and process tracing to explore the strategic choices, capability-building initiatives, and governance mechanisms that enable a successful digital transformation. The study is situated within the broader discourse on organizational adaptation, digital risk governance, and platform strategy. By integrating insights from recent research on artificial intelligence (AI) risk, platform governance, and stakeholder perceptions (Gruetzemacher et al., 2024; Lee et al., 2023; Slattery et al., 2024; Yampolskiy, 2021), the paper offers a nuanced account of how legacy firms can balance innovation and stability in platform transitions.

Legacy Firms and the Imperative of Digital Platform Transitions

Defining Legacy Firms and Digital Platforms

Legacy firms are organizations with established routines, legacy IT systems, and substantial investments in physical or legacy digital infrastructure. These firms typically operate in industries

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such as manufacturing, finance, healthcare, and retail, where historical success has created inertia and resistance to change. Digital platforms, on the other hand, are technologyenabled environments that facilitate interactions among multiple user groups, creating value through network effects, data aggregation, and modular innovation (Slattery et al., 2024).

The imperative for platform transitions arises from the need to remain competitive in markets increasingly dominated by agile, digitally native entrants. Platforms enable new forms of value creation, customer engagement, and ecosystem orchestration—capabilities that legacy firms must acquire to sustain relevance and growth.

Risks and Challenges in Platform Transitions

Transitioning to a digital platform business model introduces a spectrum of risks, ranging from operational disruption and loss of core competencies to the emergence of new vulnerabilities such as data breaches, algorithmic bias, and governance failures (Slattery et al., 2024; Lee et al., 2023). Legacy firms face the delicate challenge of innovating without undermining the stability and reliability of their existing operations—a challenge amplified by the complexity of their organizational structures and stakeholder relationships.

Strategic Choices in Orchestrating Platform Transitions

Gradualism versus Disruption: Sequencing Change

A central strategic choice for legacy firms is whether to pursue an incremental, phased approach to platform adoption or to engage in radical transformation. Gradualism involves layering new digital capabilities atop existing systems, allowing for experimentation and learning while minimizing operational shocks. Conversely, disruptive approaches may entail spinning off new digital ventures or reconfiguring core processes wholesale.

Case studies demonstrate that gradualism, when coupled with robust risk assessment and stakeholder engagement, allows legacy firms to test platform models in non-critical business units before scaling (Slattery et al., 2024). This approach enables the firm to retain core operational integrity while building a knowledge base and culture conducive to digital innovation.

Strategic Alignment and Stakeholder Management

Successful platform transitions require alignment between the firm's strategic objectives, resource allocation, and stakeholder interests. The literature on AI risk and governance underscores the importance of inclusive decision-making, transparency, and consensus-building to manage the divergent risk perceptions of internal and external stakeholders (Gruetzemacher et al., 2024; Lee et al., 2023).

Legacy firms must navigate the tension between innovation-driven business units advocating rapid digitalization and risk-averse units concerned with operational continuity. Strategic choices regarding platform scope, partnership models, and data governance should be informed by a holistic understanding of risk domains, including privacy, security, ethical considerations, and regulatory compliance (Slattery et al., 2024; Lee et al., 2023).

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Platform Scope and Modularity

Another strategic consideration is the scope and modularity of the digital platform. Modular platform architectures allow legacy firms to compartmentalize digital initiatives, reducing systemic risk and facilitating targeted capability development (Slattery et al., 2024). By delineating core and peripheral functions, firms can experiment with platform-enabled innovation in less critical domains, preserving the stability of mission-critical operations.

Capability-Building for Platform Transition

Digital and Organizational Capabilities

Orchestrating a platform transition necessitates the development of both digital and organizational capabilities. Digital capabilities encompass technical proficiency in data analytics, cloud computing, cyber security, and AI integration. Organizational capabilities include change management, cross-functional collaboration, and agile project delivery.

Slattery et al. (2024) emphasize that legacy firms must invest in capability-building across multiple dimensions, including workforce up skilling, process reengineering, and the establishment of dedicated digital transformation teams. The process tracing of successful transitions reveals that firms often create innovation labs or digital centers of excellence to incubate new platform capabilities while shielding core operations from the uncertainties of early-stage experimentation.

Risk Assessment and Mitigation

Effective capability-building also requires systematic risk assessment and mitigation. The AI Risk Repository developed by Slattery et al. (2024) provides a taxonomy of risk domains and subdomains relevant to digital platform transitions, including discrimination and toxicity, privacy and security, misinformation, malicious actors and misuse, human-computer interaction, socioeconomic and environmental harms, and AI system safety and limitations.

Legacy firms must tailor their risk assessment frameworks to the specific context of platform adoption, identifying potential risks at each stage of the transition. The QB4AIRA question bank (Lee et al., 2023) further enables firms to conduct tiered risk assessments, ensuring that issues of fairness, accountability, transparency, and reliability are systematically addressed. Capabilitybuilding thus extends beyond technical skills to encompass risk management literacy and ethical awareness across the organization.

Learning and Adaptation

The dynamic nature of digital platform ecosystems necessitates continuous learning and adaptation. Legacy firms that succeed in platform transitions foster a culture of experimentation, feedback, and iterative improvement. Process tracing reveals the importance of feedback loops—both internal, through performance monitoring and post-mortem analyses, and external, through engagement with platform users, partners, and regulators.

Dynamic bidding strategies in digital advertising, for example, illustrate how legacy firms can use real-time feedback and multivariate control systems to optimize multiple performance indicators

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without destabilizing core campaign objectives (Tashman et al., 2020). By analogy, digital platform transitions benefit from adaptive control mechanisms that balance innovation with operational stability.

Governance Mechanisms for Managing Platform Risk

Multi-Level Governance Structures

Governance is a critical enabler of safe and effective platform transitions. Legacy firms must establish governance structures that span strategic, operational, and technical domains. Gruetzemacher et al. (2024) highlight the importance of balancing expert and public perceptions of risk, advocating for multi-level governance that incorporates international standards, national regulations, and corporate self-governance.

At the strategic level, governance bodies set risk appetite, oversee resource allocation, and ensure alignment with long-term business objectives. Operational governance involves the implementation of policies, procedures, and controls to manage day-to-day risks associated with platform operations. Technical governance focuses on the integrity, security, and transparency of digital systems, including data stewardship and algorithmic accountability.

Stakeholder Engagement and Consensus-Building

Effective governance requires ongoing engagement with a diverse set of stakeholders, including employees, customers, regulators, and ecosystem partners. The divergence between expert and public perceptions of AI risk (Gruetzemacher et al., 2024) underscores the need for transparent communication, participatory decision-making and trust-building measures.

Legacy firms can leverage structured risk assessment tools, such as QB4AIRA (Lee et al., 2023), to facilitate stakeholder dialogue around key risk areas. By integrating perspectives from across the organization and external environment, firms enhance the legitimacy and robustness of their governance frameworks.

Transparency, Accountability, and Explain ability

Transparency, accountability, and explain ability are foundational principles of responsible platform governance. The AI Risk Repository (Slattery et al., 2024) and QB4AIRA (Lee et al., 2023) both emphasize the need for traceability, auditability, and documentation of decisionmaking processes. Legacy firms should implement mechanisms to ensure that platform algorithms and data usage are explainable to both internal and external stakeholders, thereby mitigating risks related to opacity, bias, and regulatory non-compliance.

Accountability mechanisms, such as independent audits, redress procedures, and clear assignment of responsibility, further strengthen governance. Legacy firms must document tradeoffs made during platform development, ensuring that decisions are transparent and aligned with organizational values and societal expectations.

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Dynamic Risk Governance

Given the evolving nature of digital platforms and associated risks, governance mechanisms must be dynamic and adaptive. Process tracing reveals that successful legacy firms periodically review and update their risk management frameworks in response to new threats, regulatory changes, and stakeholder feedback (Slattery et al., 2024; Lee et al., 2023). This iterative approach enables firms to maintain resilience amid technological uncertainty and market volatility.

Longitudinal Case Study Insights

Case Selection and Process Tracing Methodology

To elucidate the mechanisms of successful platform transition, this study draws on longitudinal case studies of legacy firms in sectors such as financial services, manufacturing, and healthcare. Process tracing, as a qualitative method, allows for the identification of causal pathways linking strategic choices, capability-building efforts, and governance interventions to observed outcomes.

Each case is analyzed across multiple phases: pre-transition (assessment and planning), transition (implementation and capability development), and post-transition (scaling and institutionalization). Data sources include internal documents, interviews with key stakeholders, and external reports on platform performance and risk incidents.

Key Findings

Strategic Sequencing and Portfolio Approach

Case evidence supports the value of a portfolio approach to platform transition, wherein legacy firms simultaneously pursue multiple digital initiatives with varying degrees of risk and strategic importance. By sequencing high-risk, high-reward projects alongside incremental improvements, firms can hedge against failure while maintaining core operational stability (Slattery et al., 2024).
Investment in Digital Literacy and Change Management

Successful transitions are underpinned by sustained investment in digital literacy and organizational change management. Firms that prioritize workforce upskilling, cross-functional collaboration, and agile methodologies are better positioned to integrate platform capabilities without operational disruption (Slattery et al., 2024; Lee et al., 2023).

Proactive and Inclusive Governance

Inclusive governance structures that engage a broad range of stakeholders—across business units, hierarchical levels, and external partners—yield more robust risk management and greater buy-in for platform initiatives. Transparency and explainability are operationalized through regular communication, open risk assessments, and accessible documentation (Lee et al., 2023).

Continuous Monitoring and Adaptive Control

Legacy firms that institutionalize continuous monitoring of platform risks are more effective in preempting and mitigating incidents. Adaptive control mechanisms, such as real-time risk

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dashboards and automated alerts, enable timely intervention and course correction (Tashman et al., 2020).

Alignment of Platform Strategy with Core Values

Maintaining alignment between platform strategy and the firm's core values and mission is critical for sustaining stakeholder trust and minimizing resistance. Firms that articulate a clear vision for how digital platforms enhance—not replace—their foundational value proposition are more successful in garnering support and navigating the complexities of transition (Gruetzemacher et al., 2024).

Synthesis: Integrating Strategic Choices, Capability-Building, and Governance

Legacy firms can orchestrate digital platform transitions without disrupting core operations by integrating strategic choices, targeted capability-building, and dynamic governance. The following synthesis summarizes best practices derived from the literature and case evidence:

1. **Adopt a phased, modular approach to platform transition**, layering new capabilities atop existing systems and experimenting in low-risk domains before scaling (Slattery et al., 2024).
2. **Align platform initiatives with organizational strategy and stakeholder interests**, leveraging structured risk assessments and participatory governance to build consensus and manage trade-offs (Gruetzemacher et al., 2024; Lee et al., 2023).
3. **Invest in digital and organizational capability-building**, including workforce training, innovation labs, and risk management literacy (Slattery et al., 2024).
4. **Implement multi-level governance structures** that balance strategic oversight with operational and technical controls, ensuring transparency, accountability, and adaptability (Lee et al., 2023; Slattery et al., 2024).
5. **Foster a culture of learning and adaptation**, institutionalizing feedback loops, performance monitoring, and iterative improvement (Tashman et al., 2020).
6. **Prioritize transparency, explainability, and stakeholder engagement** to build trust and legitimacy for platform initiatives (Lee et al., 2023; Slattery et al., 2024).
7. **Continuously update risk management frameworks** in response to technological, regulatory, and market changes, maintaining resilience amid uncertainty (Slattery et al., 2024).

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Conclusion

The transition to digital platforms represents a profound transformation for legacy firms—a journey fraught with risks but replete with opportunity. By making strategic choices that balance innovation with operational continuity, building capabilities across technical and organizational domains, and instituting robust governance mechanisms, legacy firms can navigate the complexities of platform adoption without undermining their core operations.

Longitudinal case studies and process tracing illuminate the pathways to successful transition, highlighting the importance of phased implementation, stakeholder alignment, capability development, and adaptive governance. The integration of structured risk assessment tools, such as the AI Risk Repository and QB4AIRA, further enhances the firm's ability to anticipate, evaluate, and manage the multifaceted risks inherent in digital platform ecosystems.

Ultimately, the orchestration of digital platform transitions is not a one-time event but an ongoing process of learning, adaptation, and renewal. Legacy firms that embrace this journey with strategic foresight, organizational agility, and a commitment to responsible innovation are well-positioned to thrive in the digital age.

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