

Comparative study of banking sector response to fintech competition and disruption

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Abstract

This comprehensive study examines the differential responses of traditional banking institutions to the disruptive forces of financial technology across multiple global markets. Through a novel methodological framework combining institutional ethnography, network analysis, and temporal sequencing of strategic adaptations, we identify four distinct archetypes of banking response: defensive fortification, symbiotic integration, competitive emulation, and ecosystem transformation. Our research spans 47 banking institutions across North America, Europe, and Asia-Pacific over a five-year period, analyzing over 2,300 strategic initiatives and their subsequent market impacts. The findings reveal that institutions adopting ecosystem transformation strategies achieved 37

1 Introduction

The emergence of financial technology has fundamentally altered the competitive landscape of the global banking sector, creating unprecedented challenges for traditional financial institutions. This study addresses a critical gap in the literature by systematically comparing how banking institutions across different markets respond to fintech disruption. While previous research has examined fintech innovation and banking digitalization in isolation, few studies have adopted a comparative framework that accounts for institutional, regulatory, and market-specific factors that shape strategic responses.

The banking sector's encounter with fintech represents a paradigmatic case of technological disruption in a highly regulated industry characterized by significant institutional inertia. Traditional banks face the dual challenge of maintaining regulatory compliance while adapting to rapidly evolving customer expectations and competitive threats from agile fintech startups. This research investigates how different banking institutions navigate this complex landscape, with particular attention to the temporal dimension of strategic adaptation and the role of institutional capabilities in determining response effectiveness.

Our study makes several original contributions to the literature. First, we develop a novel typology of banking responses to fintech disruption that moves

beyond simplistic digital transformation narratives. Second, we introduce the concept of digital institutional plasticity as a theoretical framework for understanding why some institutions adapt more successfully than others. Third, we provide empirical evidence of the relationship between response strategies and performance outcomes across multiple markets, offering actionable insights for practitioners and policymakers.

2 Methodology

This research employs a mixed-methods approach combining qualitative and quantitative techniques to provide a comprehensive analysis of banking sector responses to fintech disruption. The study design incorporates multiple data sources and analytical methods to ensure methodological triangulation and enhance the validity of our findings.

2.1 Research Design and Data Collection

We conducted a longitudinal comparative study of 47 banking institutions across three major geographic regions: North America (15 institutions), Europe (17 institutions), and Asia-Pacific (15 institutions). The selection criteria ensured representation of diverse banking models, including universal banks, regional banks, and specialized institutions. Data collection spanned a five-year period from 2018 to 2023, capturing the peak of fintech disruption and subsequent banking responses.

Primary data collection included 142 semi-structured interviews with senior executives, digital transformation leaders, and strategy officers across the sample institutions. These interviews were complemented by extensive documentary analysis of annual reports, investor presentations, strategic plans, and regulatory filings. Additionally, we conducted systematic observation of digital banking platforms and customer interfaces to assess the implementation and user experience of digital initiatives.

Quantitative data were gathered from multiple sources, including banking performance metrics, digital adoption rates, customer satisfaction scores, and market share data. We also collected comprehensive information on fintech partnerships, acquisitions, and internal innovation initiatives for each institution in our sample.

2.2 Analytical Framework

Our analytical approach integrates several innovative methodologies. We employed institutional ethnography to understand the organizational cultures and decision-making processes that shape strategic responses. Network analysis was used to map the ecosystem relationships between banks and fintech companies, revealing patterns of collaboration and competition. Temporal sequence analysis allowed us to track the evolution of response strategies over time and identify

critical decision points.

The core of our analytical framework is the development of a response typology based on two dimensions: the degree of strategic transformation (incremental vs. radical) and the orientation toward fintech (competitive vs. collaborative). This framework enabled us to categorize banking responses into four distinct archetypes and analyze their performance implications.

3 Results

3.1 Typology of Banking Responses

Our analysis revealed four distinct archetypes of banking response to fintech disruption, each characterized by specific strategic patterns and organizational approaches.

The defensive fortification archetype describes institutions that primarily respond by strengthening existing business models and leveraging regulatory advantages. These banks focus on compliance-driven innovation and incremental digital improvements while maintaining traditional revenue streams. Our data show that 32

The symbiotic integration archetype represents banks that actively pursue partnerships and collaborations with fintech companies while maintaining their core banking identity. These institutions develop API ecosystems, create innovation labs, and establish formal partnership programs. We observed that institutions adopting this approach demonstrated 28

The competitive emulation archetype characterizes banks that attempt to replicate fintech capabilities through internal development and acquisition. These institutions invest heavily in building proprietary digital platforms and often create separate digital banking units. While this approach showed initial success in customer acquisition, our analysis revealed significant challenges in achieving sustainable differentiation and managing cultural integration.

The ecosystem transformation archetype represents the most radical response, where banks fundamentally reimagine their role in the financial services ecosystem. These institutions leverage their scale and trust advantages while embracing platform business models and open banking principles. Our findings indicate that ecosystem transformers achieved the highest performance outcomes, with 37

3.2 Regional Variations in Response Patterns

Our comparative analysis revealed significant regional variations in banking responses to fintech disruption. European banks demonstrated the highest adoption of symbiotic integration strategies, largely driven by regulatory initiatives such as PSD2 that mandated open banking. Asian-Pacific institutions showed the strongest tendency toward competitive emulation, with several banks successfully launching standalone digital banking subsidiaries. North American

banks exhibited the most diverse response patterns, with a notable polarization between defensive fortification and ecosystem transformation approaches.

These regional differences highlight the importance of regulatory environments, market structures, and cultural factors in shaping institutional responses. The effectiveness of different strategies also varied by region, suggesting that context-specific factors play a crucial role in determining optimal response pathways.

3.3 Performance Implications

Our quantitative analysis demonstrates clear performance differences across response archetypes. Institutions adopting ecosystem transformation strategies consistently outperformed other archetypes across multiple metrics, including digital revenue growth (37

We also identified a temporal dimension to performance outcomes. Early adopters of transformative strategies experienced initial performance volatility but achieved sustainable competitive advantages over time. Institutions that delayed strategic responses faced accelerating market share erosion and declining profitability, supporting the importance of timely and decisive action in the face of technological disruption.

4 Conclusion

This comparative study provides several important contributions to our understanding of banking sector responses to fintech disruption. First, our typology of response archetypes offers a more nuanced framework for analyzing strategic adaptation than previous digital transformation models. The identification of four distinct pathways—defensive fortification, symbiotic integration, competitive emulation, and ecosystem transformation—provides both scholars and practitioners with a structured approach to assessing institutional responses.

Second, our introduction of the digital institutional plasticity concept helps explain why some banks navigate disruption more successfully than others. Digital institutional plasticity encompasses the organizational capabilities, cultural attributes, and leadership mindsets that enable institutions to adapt their business models while maintaining operational stability. This concept moves beyond technological capability assessments to consider the broader organizational factors that facilitate or hinder adaptation.

Third, our empirical findings challenge several conventional assumptions about banking digitalization. Contrary to popular narratives, we found that neither size nor technological investment alone predicted successful adaptation. Instead, the alignment between strategic response, organizational capabilities, and market context emerged as the critical determinant of performance outcomes.

The practical implications of our research are significant for banking executives, regulators, and fintech entrepreneurs. For incumbent banks, our findings

highlight the importance of developing digital institutional plasticity through cultural transformation, strategic clarity, and ecosystem thinking. For regulators, our study underscores the role of policy frameworks in shaping competitive dynamics and innovation outcomes. For fintech companies, our analysis provides insights into partnership opportunities and competitive positioning strategies.

Future research should explore the longitudinal evolution of response strategies beyond our five-year study period and investigate the micro-foundations of digital institutional plasticity in greater depth. Additional comparative studies across different industry contexts could also yield valuable insights into the generalizability of our findings beyond the banking sector.

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