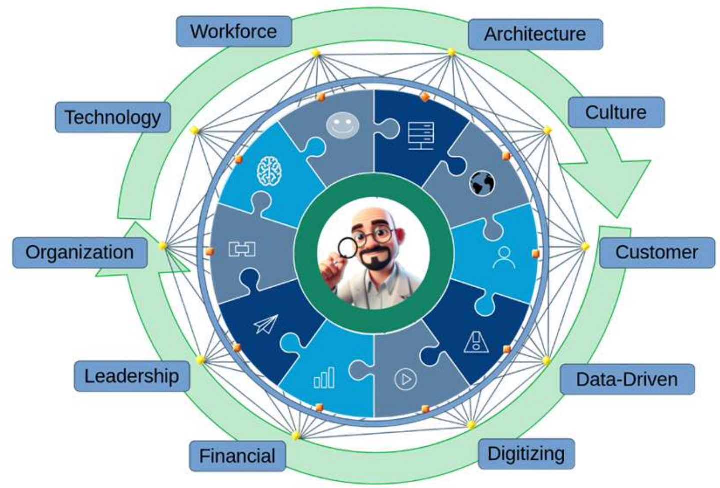
RESEARCH PRESENTATION

Digital Transformation in US Banking

The Critical Role of Full Digitization

Examining the state of digitization at US banks and the path to digital transformation. Insights from leading industry research and case studies.

FSI Digital Transformation Framework



Research supported by data from McKinsey, Deloitte, Forbes, PYMNTS, and other authoritative sources from 2021 to 2024.

Table of Contents

This research examines the current state of digitization at US banks and explores how complete digital transformation can enable competitive advantage in today's financial landscape.

Analytics Banking Digital Customers AI

Executive Summary

My research reveals that the banking sector is undergoing rapid but uneven digitization, with significant investments yielding mixed results and persistent structural challenges.

Key Findings

Rising Digital Investment
Digital banking investment nearly triples annually, reaching $780K per $1B assets in 2023, while global tech spending in banking hit $650B in 2023.

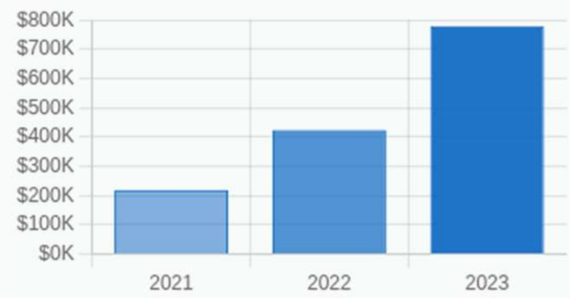
Legacy Systems Bottleneck
75% of banks struggle to implement new digital solutions due to legacy infrastructure, with 70% of IT budgets consumed by maintaining outdated systems.

Fintech Competitive Pressure
FinTechs captured 47% of new account openings in 2023, up from 36% in 2020, driven by superior digital experiences and innovative products.

ROI Challenges
Despite significant technology spending, many banks struggle to demonstrate clear returns, with declining productivity trends (falling 0.3% annually since 2010).

> *"Digitization is a cornerstone of digital transformation for financial services institutions, providing the agility and operational efficiency needed to thrive in today's digital-first market."*

Digital Spending Trend

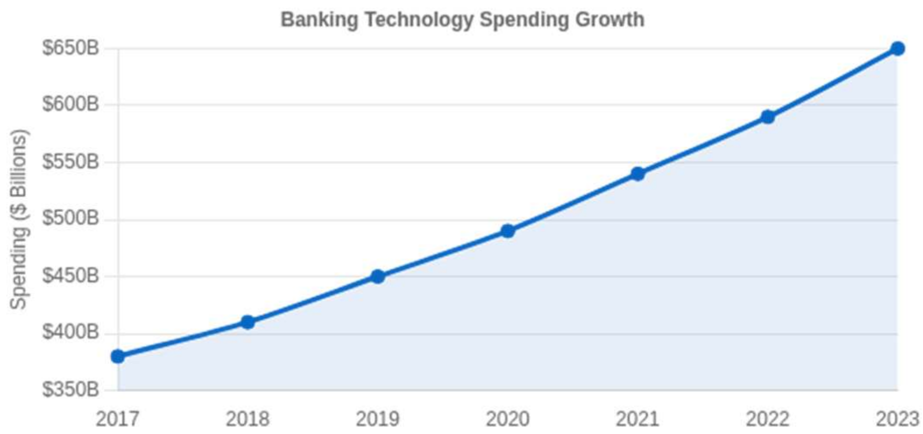


Critical Imperatives

- ✓ Complete digitization of all processes
- ✓ Legacy system modernization
- ✓ Customer experience enhancement
- ✓ Strategic value-focused tech investments

Industry Landscape: Digitization in US Banking

Digital investments are accelerating as banks seek competitive advantage (2021-2024)



Key Statistics

- Global technology spending in banking reached **$650 billion** in 2023
- Tech spending growing **9% annually**, outpacing revenue growth of 4%
- Banks spend approximately **10% of revenue** on technology

Investment vs. Value Paradox

Declining Productivity

Despite increasing tech investments, productivity at US banks has been falling 0.3% annually since 2010, while most other sectors experience gains.

Limited Scale Economies

High correlation between revenues and employee counts regardless of bank size suggests minimal scale benefits from technology spending.

Minimal Competitive Differentiation

Higher tech spending doesn't necessarily create competitive advantage. Vendor ecosystems quickly commoditize and distribute innovations.

Growing Cost of Complexity

Regulatory compliance, AI adoption, and legacy system renewals drive continued spending increases without clear ROI frameworks.

"The only thing I get from paying by time and materials is invoices for more time and more materials." — U.S. Banking Executive

Banking executives desire outcomes that can be achieved in shorter periods. This allows reinvestment and continued measurements of success.

Why Digitization is Crucial for Transformation

Complete digitization forms the essential foundation that enables banks to successfully undertake broader digital transformation initiatives.

The Foundational Elements

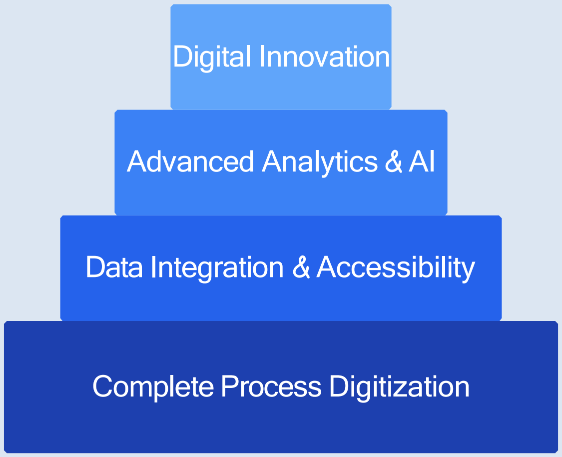
Enhanced Operational Efficiency
Digitizing core processes eliminates manual work, reduces errors, and lowers costs while increasing throughput and employee productivity.

Organizational Resilience
Fully digital operations enable remote work, business continuity, and rapid response to market disruptions or regulatory changes.

Customer Experience Excellence
End-to-end digitization creates seamless, personalized journeys that match customer expectations set by digital-native companies.

Innovation Acceleration
Digital processes and data enable experimentation, rapid deployment of new services, and the foundation for AI/ML implementation.

Digitization as a Foundation



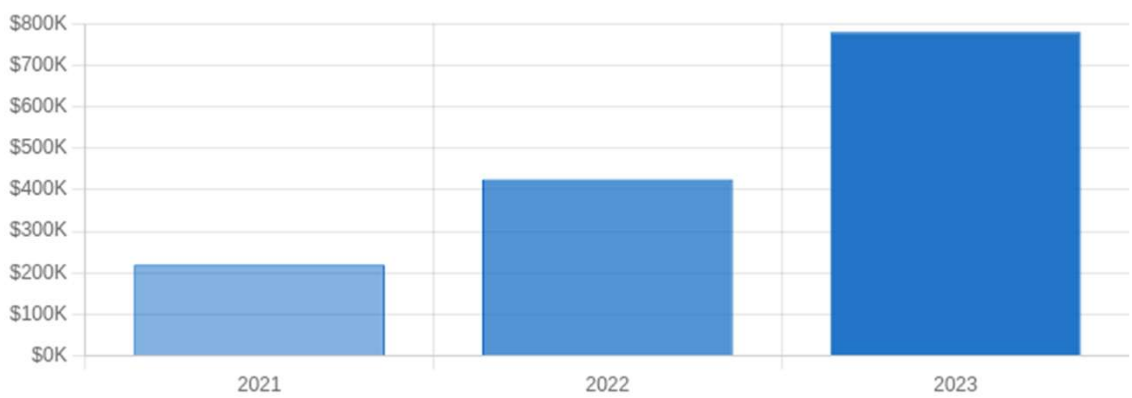
- Opens new revenue streams
- Enables rapid product development
- Future-proofs the organization

Current Progress: Digital Spending, Adoption, and Outcomes

Banks have dramatically increased digital investments, yet key performance metrics reveal a concerning disconnect between spending and results.

Digital Investment Trend

$ spent per $1 billion in assets



Source: Cornerstone Advisors/Forbes, 2024

Key Insights

- Banks struggle to translate higher digital investments into improved operational efficiency and customer acquisition.
- Heavy spending often fails to address fundamental digital product and integration challenges.
- Successful areas (mobile deposit, chatbots) show the value of customer-centric product design and deployment.

Implementation Gaps

Digital Productivity ↓ -50%

Users supported per digital FTE dropped from 30,000 to 20,000 (2021-2023)

Digital Account Opening ↓ Declining

Percentage of new accounts opened digitally decreasing for second straight year

Bill Pay & P2P Usage ↓ Low

Only ~10% of digital users utilize bank P2P payments; bill pay adoption declining

Bright Spots ↑ Growing

Mobile deposit adoption +50%; Mobile payments +34%; Chatbot support +15%

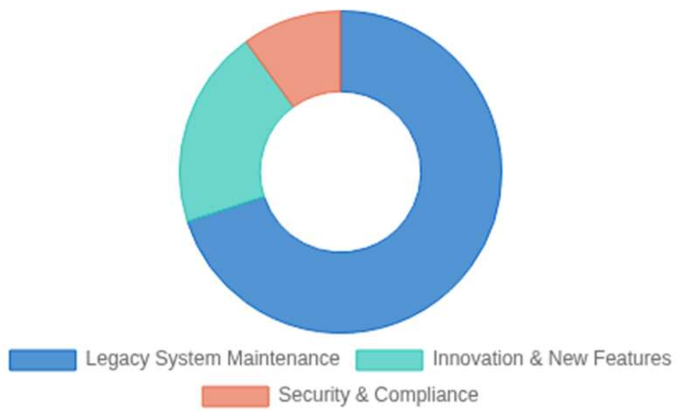
Major Barriers: Legacy Systems & Structural Challenges

Traditional banks face significant obstacles in their digital transformation journey due to outdated infrastructure and technical debt.

75%
of banks struggle to implement new digital solutions

70%
of IT budgets consumed by maintaining legacy systems

IT Budget Allocation



Source: Banking Industry Analysis 2023

Key Challenges

Fragmented Architecture
Described by 59% of bankers as a "spaghetti" of interconnected but antiquated technologies that are difficult to modernize.

Technical Debt
Developers at traditional banks spend only 32% of their time on coding, with most time consumed by maintenance and integration tasks.

High Replacement Risk
Upgrading core systems is costly and risky, with failed migrations potentially causing service disruptions and data loss.

Innovation Bottleneck
Legacy systems hinder real-time payment processing, AI integration, and the launch of innovative customer-facing services.

> *"Banks feel like hostages to their legacy technology." — Acting Comptroller of the Currency Michael J. Hsu*

Case Study: JPMorgan Chase's Digital Strategy

How America's largest bank implements a disciplined, enterprise-wide approach to digital transformation

Investment Scale

$10B+

Annual technology investment

166

New digital branches built in 2023

Technology Focus Areas:

- Core system modernization
- AI/ML strategic applications
- Cloud migration
- Customer-facing digital innovation

> "We're not going to be chasing shiny objects here in AI. We want to do this in an extremely disciplined way. It's very commercial and very linked to tangible outcomes.“ — Jeremy Barnum, CFO, JPMorgan Chase (Q4 2023 Earnings Call)

Strategic Approach to Digital Transformation

Enterprise-Wide Modernization

Coordinated technology initiatives across all business segments (consumer, asset management, commercial, investment banking) to create cross-segment leverage and consistent customer experience.

Disciplined AI Adoption

Appointed Operating Committee member (Teresa Heitsenrether) to direct global AI strategy. Focus on "extremely disciplined" implementation with "well-chosen list of high-impact use cases" and measurable productivity gains.

Digital & Physical Expansion

Complementary branch and digital growth strategy, with investments in digital onboarding, payments, card platforms, and omnichannel capabilities alongside physical branch expansion.

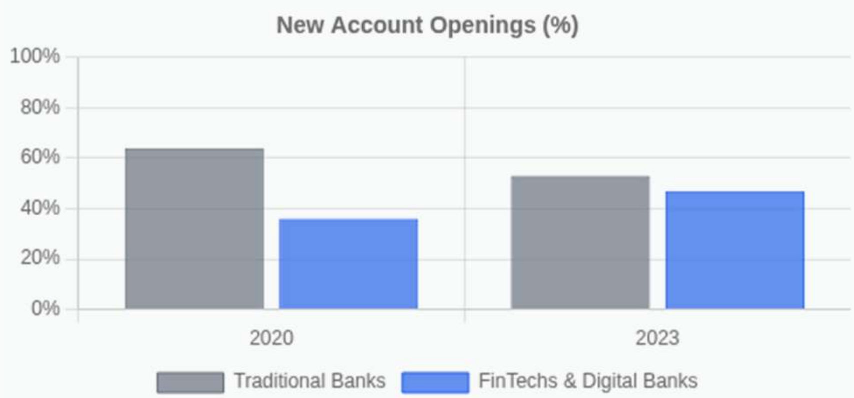
Talent & Pragmatic Execution

"Granular, data-driven upgrade of teams" to maintain technology leadership. Commercial focus with strong emphasis on tangible outcomes and accountability for results rather than "chasing shiny objects."

The Rise of FinTechs

Competitive pressure is reshaping the banking landscape, demanding urgent digital transformation from traditional institutions.

Market Share Growth



Source: Forbes/Cornerstone Advisors, 2023

Primary Banking Relationship

41% of FinTech customers use them as primary banking provider

Success Drivers

Superior Digital Products
FinTechs excel at creating purpose-built digital offerings with streamlined features that solve specific customer pain points.

Seamless User Experience
Intuitive interfaces, minimal friction, and quick onboarding processes create customer experiences that traditional banks struggle to match.

Technology-First Approach
Built on modern tech stacks without legacy constraints, FinTechs iterate quickly, responding to market opportunities and customer needs faster.

"Banks need to reinvent—or at least redesign—their core checking and payment accounts to meet consumers' changing needs and expectations." — Cornerstone Advisors, 2024

Digital Customer Experience: Progress and Gaps

Banks are making progress in select digital experiences while lagging in others, creating an uneven customer journey landscape.

Areas of Progress

Mobile Deposit
+50% adoption since 2021 with 3x more checks deposited

Chatbot Support
4,000+ monthly sessions; bank adoption up from 8% to 23%

Mobile Payments
Adoption grew from 22% to 34% YoY with 5 payments/month

Areas Needing Improvement

Digital Account Opening
Declining rates for second consecutive year

Bill Pay
Decreasing usage and poor adoption among younger consumers

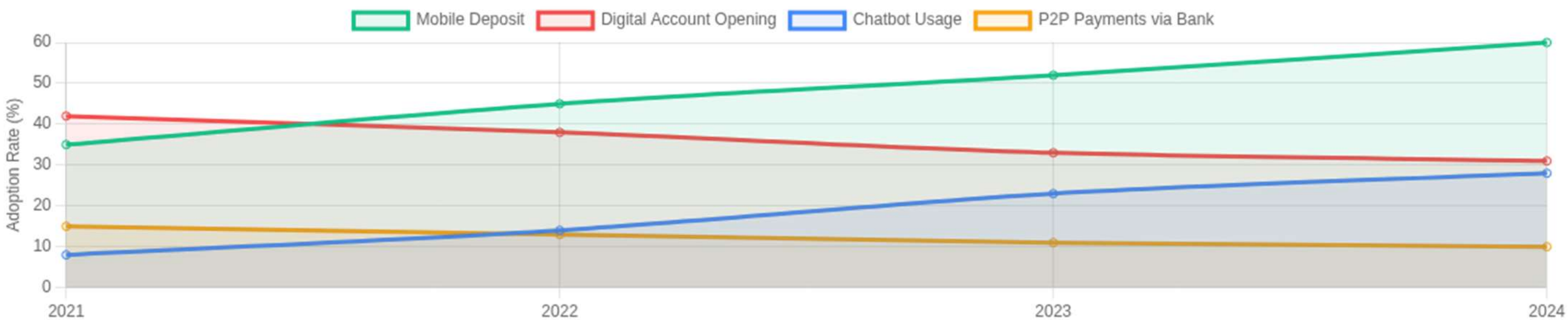
P2P Payments
Only 10% of digital users make P2P payments via banks

Key Recommendations

- Gamify the digital account opening journey with interactive elements and rewards to reverse declining completion rates.
- Launch a targeted marketing campaign focused on younger demographics to drive adoption of the bank's seamless P2P payment services.
- Boost bill pay engagement by incorporating AI-powered insights that help users track spending and identify potential savings.
- Program the successful chatbot to proactively introduce and guide users toward underutilized features like P2P payments and bill pay.

Digital Customer Experience: Progress and Gaps

Trends in customer adoption rates demonstrate areas that banks should focus on to address customer behavior patterns.



Key Recommendations

- Redesign digital account opening journey to increase completion rates
- Integrate seamless P2P functionality to compete with dedicated solutions
- Modernize bill pay with recurring payment management and insights
- Focus on end-to-end customer experience across channels

Incremental Modernization: APIs & Cloud

Banks are increasingly choosing targeted upgrades over risky complete system replacements

Core System Modernization Approaches

Source: PYMNTS Intelligence Report, 2024

API-Led Incremental Modernization

Nearly half (47%) of financial institutions are pursuing incremental core upgrades using APIs, which enable gradual improvements without the risk of full system replacement.

Lower Risk
Reduces disruption to business operations

Faster Time-to-Market
Enables iterative capability deployment

Cloud Migration Benefits

Agility
Rapid scaling of resources to match demand

AI Integration
Access to advanced machine learning capabilities

Resilience
Enhanced security and disaster recovery

Key insight: Deutsche Bank's implementation of an API-accessible payments orchestration layer demonstrates how such incremental upgrades can streamline operations and enhance digital service offerings without disrupting core systems.

Measuring ROI & Value from Digital Investments

Despite significant technology spending, many banks struggle to demonstrate clear returns on their digital investments. Leading institutions have developed specific approaches to maximize and measure value.

Value-Focused Approaches

Strategic Investment Allocation

Top banks concentrate technology investments in select business domains aligned with key value drivers rather than fragmenting across too many initiatives.

Outcome-Based Execution

Successful institutions use OKRs to link technology work to business outcomes and financial impact, hardwiring tech objectives to budget expectations.

Transparent Value Communication

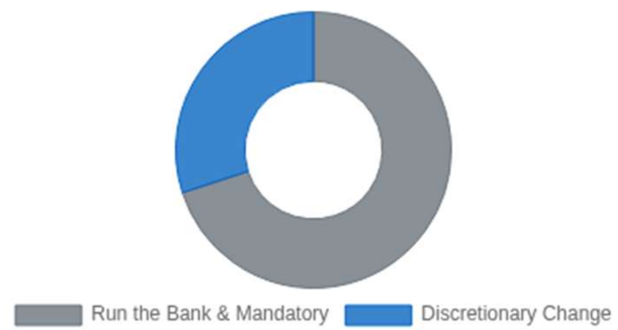
Leading banks develop clear narratives for stakeholders about technology's impact on revenue growth, fee income, asset yields, and cost efficiencies.

Increased Tech Capacity

By transforming technology functions to optimize run costs, banks can increase discretionary investment capacity by 50% or more.

> *"If you want to tell investors a powerful value creation narrative, then work backward from that and allocate investments accordingly."*
>
> *— Banking Executive, McKinsey Research (2024)*

Tech Investment Allocation Challenge



Key Industry Findings

- Banks spend ~10% of revenue on technology without clear competitive differentiation
- Revenue growth (34%) and return on tangible equity (55%) drive most of the difference in total shareholder returns
- Banking productivity has declined by 0.3% annually since 2010 despite tech investments

Key Imperatives & Future Outlook

Banks must take decisive action to complete their digital transformation journey and remain competitive in the evolving landscape.

Complete Process Digitization

Banks must digitize all processes end-to-end, eliminating paper and manual workflows to enable agility, enhance customer experience, and create a foundation for automation and AI adoption.

Core System Modernization

Replace or upgrade legacy systems with modern, integrated platforms using APIs and cloud technologies to reduce technical debt and enable faster product innovation.

Data-Driven Transformation

Build robust data infrastructure to extract actionable insights, support AI initiatives, improve decision-making, and deliver personalized customer experiences at scale.

Customer-Centric Innovation

Design digital experiences around customer journeys rather than internal processes, continuously innovate to meet evolving expectations, and deliver seamless omnichannel interactions.

Key Imperatives & Future Outlook

Banks must take decisive action to complete their digital transformation journey and remain competitive in the evolving landscape.

Future Banking Landscape (2025-2030)

- AI-powered operations becoming standard, with significant productivity gains
- Embedded banking experiences proliferating across digital ecosystems
- Continuous evolution toward hybrid financial institutions with fintech-like agility
- Value-focused technology investments replacing cost-centered approach

Success Factors

Comprehensive digital process coverage

Modern technology infrastructure

Customer-centric design

AI and automation adoption

"Digitization is not just about technology adoption—it's the foundation upon which meaningful digital transformation is built, enabling banks to thrive in an increasingly competitive marketplace."

Thank You

Questions? How can I help guide your organization's cloud transformation journey?

Q&A

Need more information?
matt@doctorofdt.com

Access the complete research report
https://doctorofdt.com/the-critical-role-of-full-digitization/

Research supported by data from McKinsey, Deloitte, Forbes, PYMNTS, and other authoritative sources from 2021 to 2024.