

TURING

E-BOOK

Realizing AI Value in Financial Services: Beyond Implementation to Impact



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Introduction

As a banking, financial services, or insurance (BFSI) leader, you face a critical challenge: While implementing AI is a top priority, many institutions struggle to achieve meaningful returns on these investments. The question isn't whether you should deploy AI, but how and when to apply it for maximum business impact.

According to a recent survey by Turing, "Insights from Industry Leaders: A View from the Edge of Applied AI," your sector faces distinct AI implementation hurdles:

- 51% of financial institutions cite regulatory and compliance risks as their primary challenge, significantly higher than technology (29%) or retail companies (26%).
- You must navigate stricter data privacy requirements, legacy system integration, and demanding ROI expectations.

If you're in insurance, you face additional complexities. Manual underwriting and claims processing create costly bottlenecks, especially when cases require human review. These labor-intensive processes—from medical document reviews to risk assessments—make insurers particularly motivated to capture AI's efficiency gains.

Despite these challenges, the opportunity is substantial. When properly implemented, AI can deliver transformative benefits across banking, insurance, and investment services. McKinsey estimates that generative AI could add **\$200 to \$340 billion in annual value** to global banking.

This report provides a practical roadmap for navigating your industry's complexity and maximizing your AI investments. We examine not just what AI can do but how it should be deployed for financial services use cases, focusing on strategic applications that align with your business priorities while managing sector-specific risks.

The Current State of AI Adoption in BFSI

Industry-wide adoption without high impact

The BFSI sector shows strong AI adoption, with about 80% of firms actively using generative AI (genAI) and large language models (LLMs). However, implementation alone hasn't guaranteed success—Turing's industry survey reveals 43% of financial organizations report AI initiatives falling short of expectations as they struggle to transition from implementation to impact.

Top challenges facing BFSI



Data privacy and security are paramount concerns, with 79% of financial services firms and insurers citing them as critical compared to roughly half of organizations in other industries.



Regulatory and compliance risks remain top of mind. While 51% of BFSI organizations cite compliance as a key challenge, only 29% of technology companies and 26% of retail companies report similar considerations.



Legacy system integration creates additional complexity. Many banks and insurers find themselves locked into vendor relationships that control large portions of their infrastructure, blocking the integration of new technologies.

How financial services organizations are overcoming AI challenges

Despite higher regulatory barriers, greater security concerns, and more complex integration challenges, financial organizations are still committed to AI advancement. Ninety-one percent of BFSI firms actively invest in AI initiatives, while 88% of technology companies and 76% of retailers report taking the same stance. These findings demonstrate BFSI's determination to overcome obstacles in pursuit of a competitive advantage.

Financial services and insurance organizations recognize that AI can address multiple challenges specific to their industries. AI-powered fraud detection significantly improves security while enhancing operational efficiency. Mastercard reports that its generative AI-based technology [can reduce false positives during fraud detection](#) by up to 200% while increasing the speed of identifying at-risk merchants by 300%.

Similarly, AI automation improves data validation and compliance processes while enhancing real-time fraud detection capabilities. This multidimensional value proposition explains why BFSI organizations continue investing in AI despite implementation hurdles.

Financial services leaders also show more optimism about AI's impact on the workforce than their retail counterparts. They are more likely to believe genAI could expand the workforce, seeing technology as an opportunity enabler rather than merely a cost-reduction tool. This growth mindset helps explain BFSI's commitment to AI despite implementation barriers.

Ninety-one percent of
BFSI firms actively invest
in AI initiatives

91%



Finding the Right AI Use Cases for BFSI

Your key to successful AI adoption is identifying use cases that deliver measurable business value while addressing industry-specific challenges. To achieve the highest ROI, focus on AI applications that align with your business priorities rather than implementing technology for technology's sake.

Implementation factor	Enterprise banking	Retail banking
Primary AI goals	Risk management, operational efficiency, regulatory compliance	Customer experience, personalization, digital engagement
Key challenges	Legacy system integration, regulatory complexity (51% cite regulatory concerns), data fragmentation	Customer adoption, proving ROI, technical talent gaps
Implementation approach	More centralized, enterprise-wide initiatives with longer development cycles	Targeted, focused use cases with faster deployment timelines
Success metrics	Cost reduction, risk mitigation, operational efficiency	Customer satisfaction, digital adoption, revenue growth
Budget allocation	Larger investments across broader initiatives	Smaller, iterative investments with focused outcomes



Aligning AI investments with business priorities

Once you've identified potential use cases, the next step is ensuring they align with your core business objectives. The most successful financial institutions connect their AI investments to core business objectives. For financial services organizations, this means enabling AI-powered insights (91%), driving operational efficiency and cost reduction (89%), and accelerating innovation and product development (85%).

McKinsey research confirms banks that extract maximum AI value focus on high-impact areas core to their strategy, avoiding scattered investments across peripheral applications. This targeted approach, combined with measurement of enterprise-wide impact, increases stakeholder support and implementation success.

Gartner advises financial organizations to “start with business problems, not use cases,” noting that pursuing AI without clear business objectives often results in “redundant technology in search of a problem.”

For financial institutions, AI's true value emerges when efficiencies scale across enterprise operations. Consider how one global banking institution transformed its KYC process: By implementing an AI-powered document analysis system, the bank reduced its average review time from 30 minutes to just 5 minutes per case. The impact across a million annual cases translates to over 415,000 hours saved. That's the equivalent of 200 full-time positions redirected toward higher-value activities. Beyond productivity metrics, the organization observed stronger audit trails, streamlined compliance verification, and reduced false positives. Compliance teams also experienced less burnout. Use cases with this enterprise-wide perspective transform AI investments into measurable business advantages while gaining essential stakeholder support.

High-ROI Use Cases in BFSI

Several use cases consistently deliver strong returns while addressing industry-specific challenges:

Using AI to streamline regulatory and audit processes

You can transform your intensive audit and regulatory preparation cycles through AI-powered support capabilities that help your teams scan for compliance gaps, summarize complex documentation, and generate inspection-ready reports. Whether you're preparing for regulatory examinations or internal audits, AI assistants reduce preparation time while improving outcomes through more comprehensive and consistent documentation.

Automating complex lending workflows

AI-powered workflows now allow you to streamline approval processes and cut cycle times. Whether for mortgages or other lending products, these systems guide borrowers through applications, autonomously verify documents, and trigger next steps while maintaining full compliance with lending regulations.

AI-augmented compliance management

AI assistants can augment compliance teams handling Know Your Customer (KYC), anti-money laundering (AML), and regulatory requirements. These systems flag anomalies for immediate human review, provide contextual regulatory guidance, and create detailed audit trails—enabling faster case resolution while strengthening your regulatory compliance.

Claims and insurance operations

When processing claims, your teams can deploy AI agents to triage incoming requests, summarize supporting documentation, and score case complexity for appropriate routing. This approach accelerates resolution times and improves consistency in claims handling, leading to improved customer satisfaction and operational efficiency.



Real-time data intelligence for trading and risk

By implementing machine learning (ML) models and real-time data analysis and processing, your organization can enhance trading decisions and manage risks more effectively. These capabilities reduce exposure to market volatility, improve efficiency, and reduce human error.

Strengthening regulatory compliance

Financial institutions face significantly higher regulatory scrutiny than other sectors. AI applications that strengthen compliance represent particularly fruitful use cases. These systems help you keep up with evolving regulations, automate reporting, and ensure consistent compliance across all operations.

AI-powered fraud detection

Advanced AI models monitor your transactions in real time to identify suspicious patterns, immediately alerting teams to potential security threats. This enables faster mitigation of fraud risks while reducing false positives that can frustrate legitimate customers.

Customer experience enhancement

While regulatory considerations remain paramount, 86% of BFSI firms say customer satisfaction and engagement are extremely or very important for measuring the success of their AI initiatives. Institutions that pursue AI-driven customer experiences gain multiple competitive advantages. AI-powered interfaces enable self-service for routine transactions, reducing call center volume and operational costs. Personalized recommendations boost product adoption rates while reducing acquisition costs. AI tools also deliver consistent, compliant customer interactions at scale—improving customer satisfaction while reducing regulatory risk.

Automating insurance underwriting through multimodal AI

An insurance provider struggled with time-consuming manual reviews of medical documents for underwriting, particularly for non-straight-through processing (non-STP) cases that require human intervention. This traditional process was error-prone and difficult to scale, resulting in bottlenecks when issuing policies.

The insurer developed a genAI-driven underwriting engine using multimodal LLMs to:

- Process proposal forms and medical documents
- Extract mandated information with high accuracy
- Assess risk through LLM-powered analysis
- Categorize proposals based on risk criteria
- Populate data into existing systems of record
- Generate comprehensive underwriting reports

The results included 24-hour case closure, which significantly improved efficiency, an automated underwriting process that enabled STP and reduced manual effort, and enhanced policy pricing accuracy, leading to better competition and improved loss ratios. This allowed the insurer to focus on complex cases that required human judgment, rather than routine processing tasks.

Accelerating AI implementation through strategic partnerships

A financial services organization needed to process vast amounts of real-time market data to optimize trading decisions and manage risk effectively. By partnering with Turing's AI specialists, they developed an AI-powered trading platform that:

- Utilized streaming platforms for real-time data ingestion from multiple market sources
- Implemented ML models to identify trading opportunities
- Integrated risk management frameworks, including value at risk (VaR)
- Deployed on a scalable cloud infrastructure to maintain performance during market volatility

With this AI-powered stock trading platform in place, the firm was able to optimize trading strategies while managing risks. By tapping real-time data ingestion capabilities, ML models, and automated trading engines, BFSI organizations like yours can similarly enhance decision-making, improve trading performance, and minimize losses during market fluctuations. You need partners who understand both the AI capabilities and your regulatory reality—that's what Turing brings to financial services.

Building Comprehensive Measurement Frameworks for AI Success

To demonstrate AI's value, you need an effective measurement framework. While ROI remains the leading metric for evaluating AI success among BFSI executives, top-performing firms take a more comprehensive approach, capturing AI's multifaceted impact across the organization. Integrate measurement planning from the start, ensuring your AI initiatives deliver concrete business outcomes rather than just showcasing technology.

Measurable KPIs:

Monitor specific process improvements, such as reduced processing time, lower error rates, and increased throughput. Financial institutions that have deployed genAI capabilities across the software development life cycle (SDLC) have accelerated SDLC phases by over 50%, with accuracy exceeding 95%, according to an Accenture report.

Customer satisfaction metrics:

AI-enhanced customer experiences have a direct impact on your financial performance. When you deliver superior AI-enhanced experiences, you'll outperform competitors in total shareholder return, increased growth, and cost efficiency. Financial institutions that implement AI-powered personalization and self-service capabilities report stronger customer retention rates and increased wallet share.

Risk reduction measurements:

Quantify AI's impact on your risk management through specific metrics: fewer false positive alerts, more accurate fraud detection, and reduced regulatory findings. Banks applying AI to compliance processes demonstrate significant improvements in risk identification and mitigation.

Revenue enhancement indicators:

Track AI's contribution to your top-line growth through metrics like faster time-to-market (TTM) for new financial products, expanded customer relationships, and improved lead conversion across digital channels.

Strategic implementation benefits:

- **Resource optimization:** Clear metrics enable you to direct resources toward initiatives with the highest business impact.
- **Stakeholder alignment:** Transparent measurement frameworks establish realistic expectations with your executive sponsors.
- **Continuous improvement:** Comprehensive measurement creates actionable feedback loops for ongoing enhancement of your AI capabilities.
- **Regulatory confidence:** Measurement frameworks that include compliance and risk controls strengthen relationships with both your internal stakeholders and regulators.

Organizations that harness AI's potential combine these metrics into integrated systems, delivering high-level executive insights alongside in-depth analytics to drive ongoing improvements.

Practical Next Steps for BFSI Leaders

The future of AI in banking, financial services, and insurance lies in strategic implementation that delivers measurable business value while tackling regulatory and security constraints. Despite implementation challenges, BFSI organizations remain committed to advancing AI, with over 90% anticipating increased investments in the coming years.

The distinction between successful and lackluster AI initiatives often lies in the approach to implementation. Organizations achieving the most impactful results share several practices:



Begin with clearly defined business problems rather than technology capabilities.



Build comprehensive measurement frameworks that capture AI's multifaceted impact.



Address compliance and security requirements throughout the implementation journey.



Combine internal domain expertise with specialized AI capabilities.



Establish realistic timelines and expectations that align with organizational realities.

If you're looking to advance your AI initiatives but unsure where to begin, these steps can help you get started:



Identify two to three high-value use cases that align with your business priorities.

Instead of pursuing broad AI initiatives, focus on specific use cases where AI can solve clearly defined business problems.



Prioritize your data foundation for your chosen use cases.

Once you've identified your target applications, assess the data quality, accessibility, and integration capabilities required to support them. Successful AI implementation requires clean, well-structured data with clear lineage and strong governance. Financial institutions often discover that addressing fundamental data issues—like siloed information, inconsistent formats, or incomplete records—must precede sophisticated AI deployments. Start by identifying high-value datasets that align with your priority use cases and ensure they meet the quality standards.



Evaluate potential partners with BFSI and AI expertise.

Strategic partnerships can accelerate implementation and fulfill specialized requirements. When considering partnering with AI experts, prioritize those with deep knowledge of the financial industry and proven technical expertise. Turing brings both—helping financial institutions achieve measurable ROI through AI solutions tailored to your regulatory requirements and legacy systems. Over 80% of organizations surveyed by Turing use outside resources to support their AI initiatives, with BFSI and retail companies being especially likely to do so. Eighty-six percent of BFSI organizations say that industry expertise is a very important or extremely important factor when evaluating potential partners.



Develop an implementation roadmap with clear success metrics.

Create a staged implementation plan with defined milestones and corresponding metrics. This approach demonstrates tangible wins while maintaining momentum toward longer-term objectives. Consider structuring your AI initiatives across these three strategic phases:

- **Foundation phase (3–6 months):**
Focus on data preparation, infrastructure setup, and initial model development. Set expectations for minimal business impact during this period while tracking technical milestones.
- **Validation phase (6–9 months):**
Deploy early versions in controlled environments alongside existing processes, measuring accuracy improvements and gathering feedback for refinement.
- **Scale phase (9–18 months):**
Transition to handling actual transactions, measuring comprehensive business impact, tracking user adoption, and addressing unexpected outcomes.

You now face increasingly targeted competition, as newer fintech entrants strategically focus on high-margin financial services segments rather than competing across the full banking spectrum. By developing a strategic, business-focused approach to AI, you can strengthen your position across the value chain.

For your institution, the question is no longer whether to invest in AI but how to do it effectively. By focusing on applications that deliver ROI while addressing industry-specific constraints, you can transform AI into a strategic capability that delivers a sustainable competitive advantage.

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Realize real-world, sustainable value

Forward-thinking financial institutions aren't just experimenting with AI—they're capturing competitive advantages. Pioneers are turning AI capabilities into measurable revenue gains, enhanced customer experiences, and reduced operating costs. The market isn't waiting. The window for establishing meaningful differentiation is closing, as AI transitions from an emerging technology to a core capability. AI implementation isn't just a technology initiative—it's a business imperative for your organization.

Ready to achieve sustainable AI impact in financial services? Partner with Turing to move beyond implementation challenges and deliver lasting business value. Our experts combine deep BFSI knowledge with AI expertise to help you create enduring competitive advantages.

[Learn more at turing.com](https://www.turing.com)

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