



Supercharging Digital Banking with Generative AI For Speed, Agility, and Efficiency

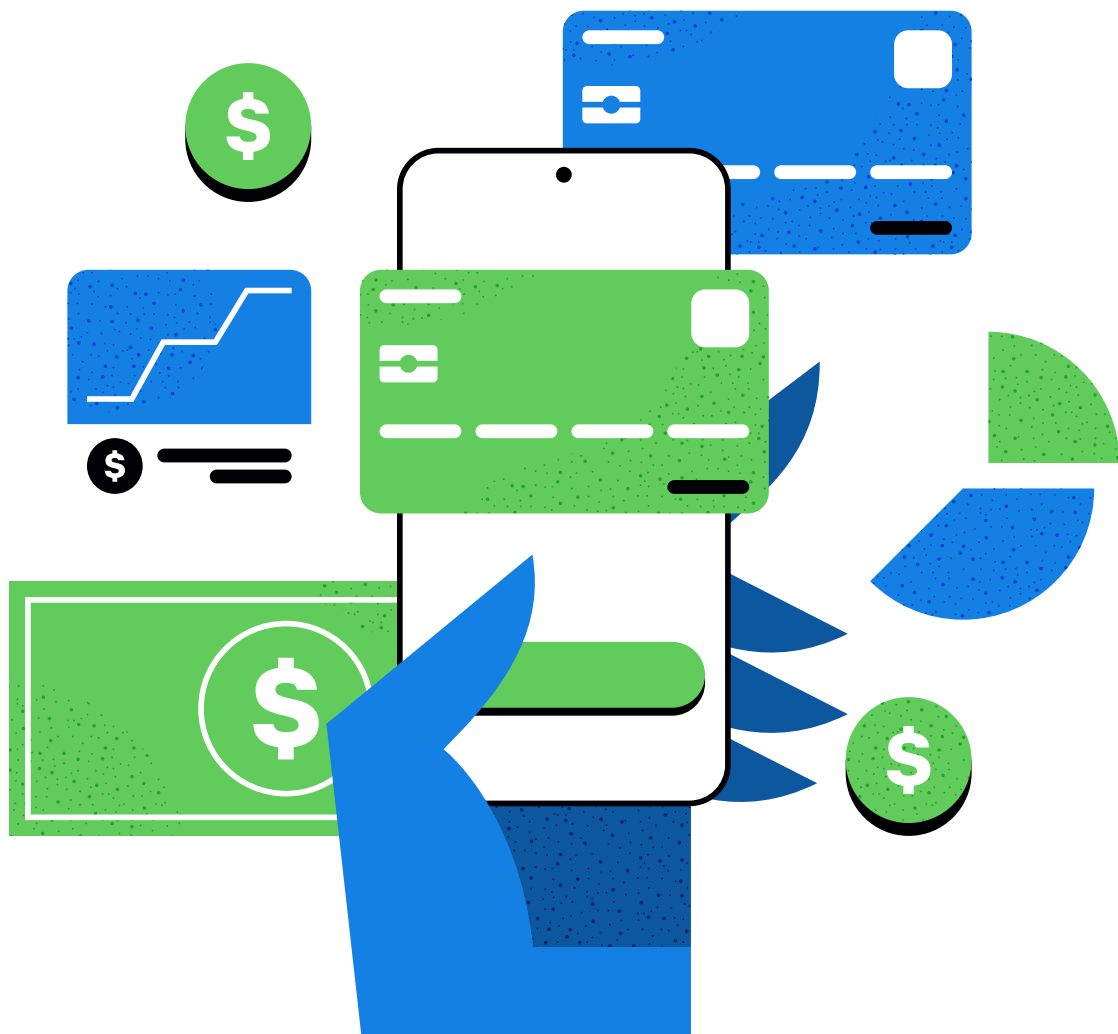


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Foreword

The Indian BFSI sector is undergoing rapid transformation, driven by digitization. As the industry continues this journey, there is a growing need for innovative digital solutions to meet the demands of a new-age banking landscape. AI, in particular, along with its subset of Generative AI (GenAI), has emerged as a powerful tool capable of revolutionizing banking operations and pushing them into a new age.

We are already observing a slew of banks turning to generative intelligence to radically change the way their services are offered. In fact, India's BFSI sector is one of the key beneficiaries of this GenAI-led revolution. Critical use cases include fraud detection and prevention, compliance and risk management, and cybersecurity.

A recent study by TechCircle, part of Mosaic Digital, a HT Media Group company, unearthed some interesting findings on the areas where GenAI is applied most and where it is likely to find prominent positioning with positive expectations of returns on investments.

While the BFSI sector still has a long way to go to implement and realize the true potential of its GenAI investments, the prime goals we see from business leaders mainly include enhancing efficiency, migrating from legacy to new-age applications, and improving overall operational resilience.

A recent think tank discussion presented by Persistent and Google Cloud in association with TechCircle aimed to identify the core areas in the banking value chain where GenAI will have the most significant impact, from everyday core operations to application building, while understanding the core challenges the banking world faces today.

This whitepaper will offer insights into the current trends, the footprint of GenAI in the banking world, solutions to leapfrog into new-age banking, expectations from the India banking community, and future directions.

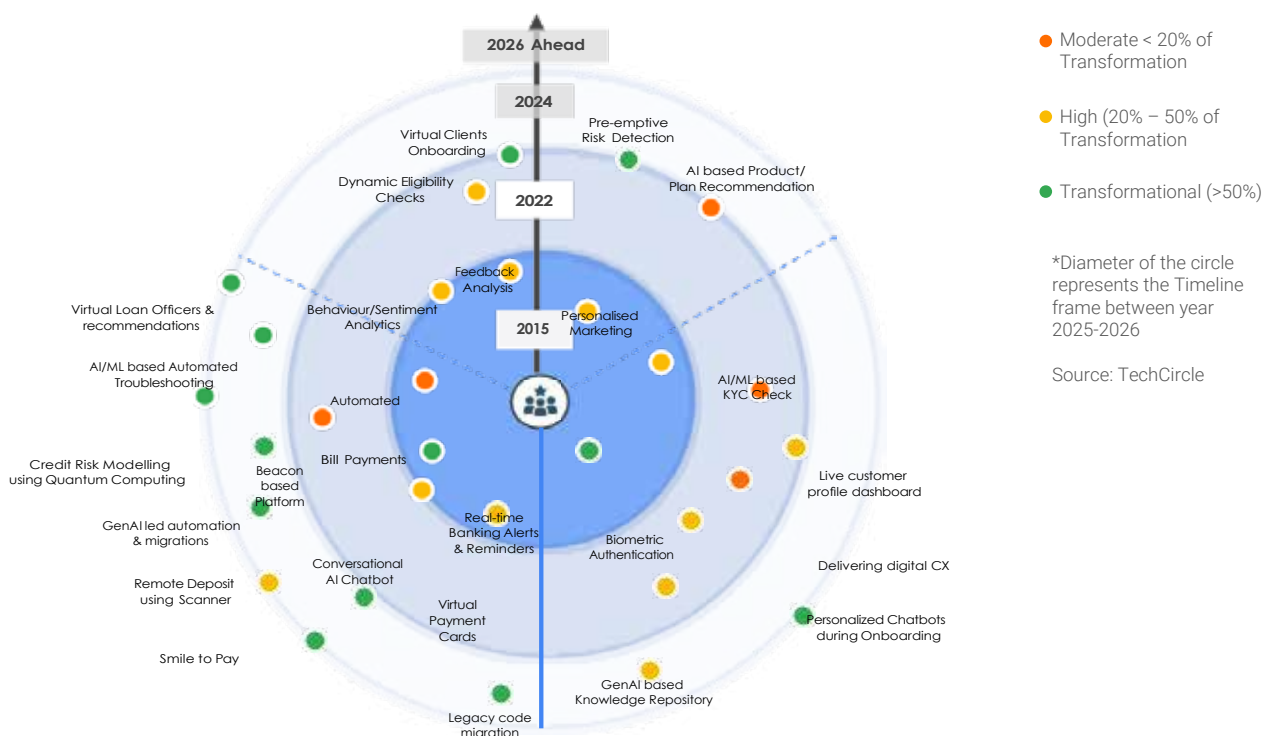
~50% of IT leaders from the banking community in India wished to invest in **fraud detection** as a top priority area, followed by **cybersecurity**

01

A typical life cycle of today's banking environment with technology impact areas

The figure below showcases the various touchpoints, and the likelihood of applying emerging technologies like GenAI, to address and streamline critical operations in a typical value chain of the banking world. It also depicts a future outlook and the emerging areas where high transformation possibilities are observed and the applicability of GenAI increases further.

While the real impact of GenAI is currently seen in enhancing customer experiences (CX), it also offers great potential in terms of enhancing core operations as well building knowledge repositories to migrate from legacy code, and automating Know Your Customer (KYC) processes.



If we go a little deeper, we can understand how in the current scenario GenAI will help transform some core areas banking operations, including:



Data Analysis and Insights

Analyzing vast amounts of data to identify trends, patterns, and anomalies, helping banks make more informed decisions and detect potential fraud.



Process Automation

Performing data entry, document processing, and customer service inquiries to free up human resources for more strategic activities.



Product Development

Building new products and services to meet the evolving needs of customers.



Regulatory Compliance

Ensuring compliance with complex regulatory requirements by automating compliance tasks and identifying potential violations.



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Why Persistent for BFSI

The challenges faced by India's manufacturing industry cited above are multifaceted. While technology alone may not resolve every challenge, its efficient deployment establishes a digital foundation. This foundation allows the industry to leverage existing ecosystems and capitalize on emerging opportunities from AI, Digitalization, Metaverse, Robotics, and more. By strategically incorporating technology, the manufacturing sector can navigate challenges, enhance productivity, and stay competitive in a rapidly evolving global landscape.

Strategic Convergence of Domain and Engineering Expertise:

With our long history with BFSI clients, Persistent is positioned as a transformation enabler rather than merely a technology partner. We have integrated domain-specific intelligence into the digital core of numerous national and international fintechs, banks, and insurance companies. Persistent is able to develop and implement AI solutions that are both technically sound and operationally relevant thanks to this contextual fluency.

End-to-End Digital Operations at Scale

Persistent successfully incorporates RPA, ML, and AI into BFSI organizations' daily operations. The ability to automate intricate procedures, such as loan servicing, claims adjudication, KYC onboarding, and underwriting, results in quantifiable gains in speed, accuracy, and cost-to-serve while maintaining regulatory compliance.

Ecosystem-Led Delivery Architecture

Ecosystem-Led Delivery Architecture: Persistent's strong partner ecosystem and engineering first philosophy are what make it unique. The company uses strategic partnerships with fintech platforms, core banking vendors, and hyperscalers to create modular, decomposable architectures that facilitate long term scalability as well as innovation velocity.

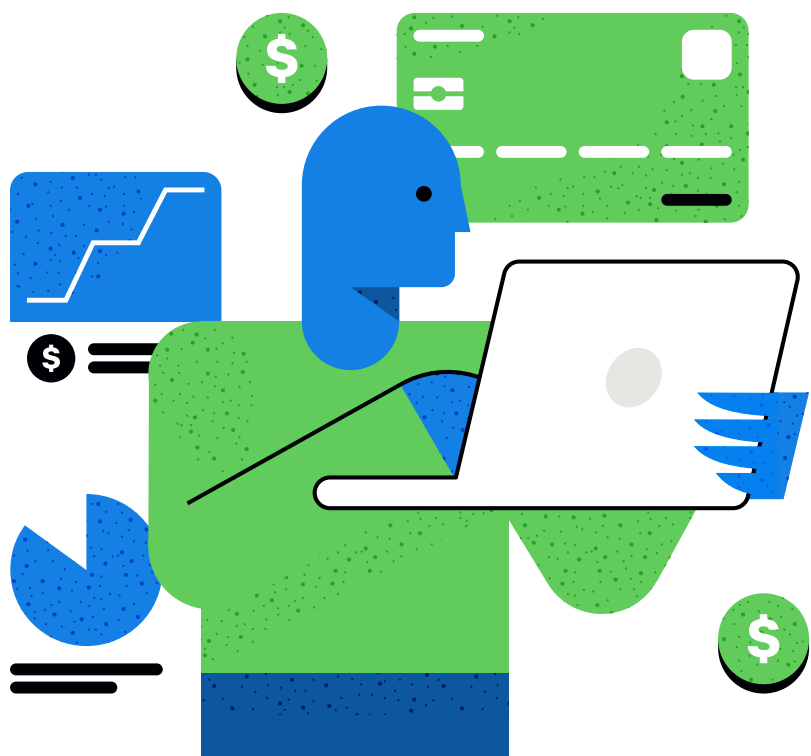
Commitment to Responsible AI Governance

Persistent's Responsible AI strategy, which incorporates explainability, security, and equity throughout the AI lifecycle, fits in nicely with the changing compliance environment. For BFSI executives managing the twin demands of digital transformation and regulatory risk reduction, this is especially pertinent.

Proprietary AI Accelerators with Use-Case Precision

Persistent has created a suite of proprietary AI accelerators, including Finsight, PiBOT, Content Assist, and WingMate, that tackle high impact BFSI use cases under our Re(AI)maging™ framework. These accelerators are designed to improve decision intelligence, optimize workflows that involve a lot of documents, and support internal and customer facing knowledge processes.

Importantly, their design takes into account practical limitations and financial institution-specific compliance requirements.



03

Use Case: GenAI-led intelligence warehouse

In this use case, we look at how a large BFSI enterprise in India used GenAI to develop a potent intelligence warehouse solution during its digital transformation journey.

The transformation began with identifying the bank's key business functions, followed by creating three impact areas in today's banking value-chain: from customer facing applications to employee experience for productivity, etc.

This led to leveraging GenAI led solutions for creating a faster and efficient process to train employees and agents with the right resources and capabilities.

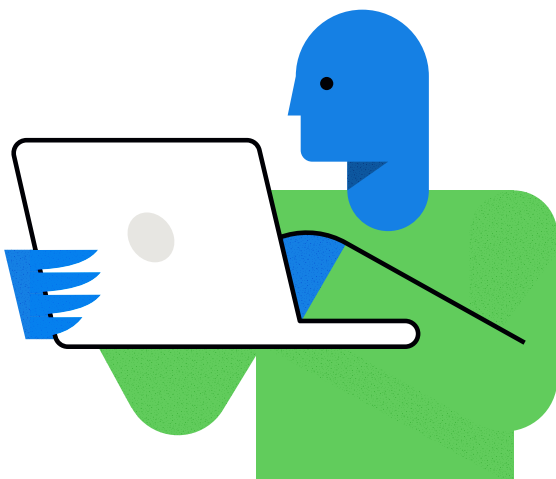
Areas for applicability

The bank introduced a platform driven by GenAI that gathers and examines all of the data it sends daily to external entities, such as government agencies and regulators.

GenAI intelligence was applied to the gathered data to extract meaningful outputs, train employees, and enhance their capabilities in product policies and bank processes.

The outcomes

The platform now provides employees with the right answers in the fastest possible manner, which has led to improved employee efficiency, and better responses to customer queries, and better access to critical operational documents.



04

The Leader's Voice: Expectations & Goals

There are multiple proofs of concept (PoCs) with GenAI which are in process at several banks within the country. Bank leaders have high expectations and goals in terms of extracting the maximum value out of their GenAI investments.

Banks are integrating GenAI into key workflows to enable rapid digital transformation and comply with the current regulatory environment. Let's examine key focus areas in banks' transformation journeys and explore how GenAI can effectively address them.

Key areas in core banking operations

Leaders' thoughts revolved mainly around transformations in current operating ways, and the possibilities in addressing redundant operations. However, continuous CX improvement is repeatedly cited as an area where GenAI can make enhancements and improvements.

The table below highlights how there are multiple areas and functions where leaders are now looking to transform through GenAI and are increasingly searching for digital transformation technology partners for effective implementations.

Regulatory Matters	Infra Management	Data and Apps Management
Automation of regulatory submissions	Automation & Migration	Application modernization
Document Scanning	Legacy codes migration	Mobile App strategy
Operations	Elasticity in infra upgradation	Data-led insights for fraud detection
Building Knowledge Repository in adherence to frequent RBI guidelines and complying to the same Reporting	Cloud Migration Strategy	Smart Underwriting solution
	Solutions/Products to accelerate using modern tech for AWS platform	Centralised Data lakehouse
	ETL codes ?	MLOPs/Data fabric Data Governance

In reviewing the above areas of interest, there are several potential opportunities to apply GenAI:

Data Management

As with many enterprises, managing large volumes of data, extracting meaningful insights, and managing/building data lake houses are major pain points. GenAI can help by providing tools for data cleaning, integration, and analysis.

Legacy System Migration

Many banks still depend on outdated legacy systems that are difficult to integrate with new technologies and platforms. GenAI brings automation capabilities which helps in migration processes and in modernizing legacy systems.

Regulatory Compliance

The BFSI sector is subject to strict regulatory requirements and must adhere to dynamic RBI guidelines, which can make it challenging to adopt new technologies. By leveraging generative intelligence, banks can automate compliance tasks and identify potential changes in guidelines.

Security

The use of AI raises concerns about data security and privacy. Banks are tasked to implement robust and ethical AI security strategies to protect sensitive customer data.

Despite the challenges, the opportunities offered by Generative AI are substantial.

By adopting a deliberate and strategic approach, banks aim to enhance efficiency, drive cost optimization, and strengthen operational resilience.



05

The Persistent + Google Cloud Advantage

Key areas in core banking operations

Persistent, with its rich data legacy and strong banking client base, has embarked on the journey to transform Indian banking with innovative AI solutions. We focus on three primary offerings targeted towards our BFSI clients.

SASVA™ 3.0

From ideation to post deployment operations, the entire software development lifecycle is revolutionized by SASVA 3.0, a sophisticated, fully integrated AI platform. Building on the advantages of its predecessor, SASVA 3.0 automates complex tasks and delivers hyper personalized, context-aware insights by fusing GenAI creativity with deterministic precision. It speeds up delivery, enhances quality, and lowers costs with improved backlog and release management, AI-assisted coding, and real time customer support capabilities. SASVA 3.0, which is created for enterprise scale complexity, guarantees data security and privacy through continuous learning and lightweight deployment, enabling teams to innovate more quickly and produce quantifiable results across industries.

iAURA 2.0

With its Agentic AI-first approach to end-to-end enterprise data management, iAURA 2.0 is revolutionizing the way businesses scale, monitor, and manage their data ecosystems. It provides sophisticated AI automation for source reconciliation, anomaly detection, rule recommendations, and data profiling. iAURA 2.0 guarantees flexibility and scalability through seamless integration with leading hyperscaler platforms and LLM providers. Teams can use GenAI to quickly gain insights and engage with data using natural language. The platform manages services and simplifies report rationalization for robust governance and operational efficiency.

GenAI Hub

Persistent's GenAI Hub enables businesses to develop quicker, scalable, and secure GenAI solutions based on Responsible AI principles, accelerating GenAI driven enterprise transformation. With ready-to-use accelerators, the Hub ensures smooth integration with current systems and facilitates seamless interoperability across multiple LLMs and cloud environments, preventing vendor lock-in. With these updates, the new version of GenAI Hub provides businesses with a strategic roadmap and a comprehensive platform to accelerate the adoption of GenAI and quickly introduce innovative AI-powered services.



Rich Data Legacy of 30+ Years

- Extensive Enterprise Experience: more than 35 years in the industry.
- Ideal AI Partner: Expertise in building AI platforms and AI powered solutions.
- Scalable Solutions: Meeting security, privacy, and governance requirements

Digital Engineering Leadership

- Modern Delivery Framework: A holistic approach using the latest tech, processes, an OCM to ensure adoption
- Product Engineering DNA: Core approach to all software development, driving unmatched expertise.
- Turbocharge with GenAI: Accelerate software development, enhance services, streamline processes.

Deep Tech and Domain Knowledge

- Specialized domain knowledge of Banking Industry and sub-verticals (BFSI) helping us win domain heavy GenAI engagements.
- Top class Engineers driving new offerings in areas of Cloud, Data, Intelligent Automation and Generative AI.

Platform-driven Services Approach

- Integrated Service Delivery: Across SDLC and enterprise use cases.
- Next-gen GenAI Platforms: SASVA & GenAI Hub with a focus on continuous development and enrichment.
- GenAI Studio: Facilitating co-innovation with clients.

Ecosystem Orchestrator

- Partnership-Driven Approach: Collaboration with key ecosystem partners.
- Deep Collaborations: With AWS, Google, IBM, Microsoft, Salesforce, and startups.
- Priority Access and Benefits: Access to next-gen tech and advantages as preferred partners.

Diverse AI-Ready Talent

- Industry Recognition: Leader in talent readiness for next-gen IT services.
- Persistent University: Key role in developing GenAI expertise.
- 16,000+ AI-trained technical and sales professionals.

06

Why Google Cloud?

Innovation culture

Deliver 10x innovation goals focused on speed and scale of user experiences with new tools and access to industry-relevant subject matter experts.

Insight transformation

Unify and improve data management with highest quality AI/ML data solutions across the organization to increase agility, efficiency, and scalability, while reducing costs by up to 40%.

Application transformation

Achieve step change in value creation by transforming business applications to modern, highly resilient solutions on an open architecture and development ecosystem while reducing operating costs.

Infrastructure modernization

Move compute, storage, networks, and operations for core IT infrastructure (on-premises, data centers) to a scaled, secure, and automated next-generation cloud, giving choice and flexibility to customers.

Client References



Extracting insights from massive data sets

- Can analyze more than 100 petabytes of financial data
- Calculating a country's global liquidity takes minutes instead of hours
- Can run much more accurate and precise financial crime analytics 10x faster



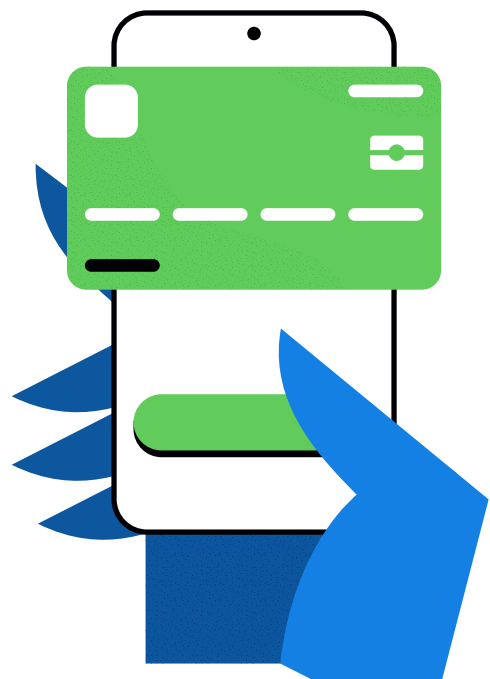
Enhancing data-driven decision making with BigQuery

- Analyzes many terabytes of data at speed and scale with a serverless data warehousing infrastructure
- Rapidly responds to customers' needs with features based on insights from BigQuery
- Helps customers keep track of what they spend and where



Improving banking experiences with modernized IT

- Supports digital transformation for 190-year-old financial institution
- Uses Anthos to deploy a modern infrastructure framework for hybrid connectivity and multi-cloud app deployment
- Can release new banking features to customers on a nearly daily basis



07

Conclusion

New era with Digital and AI offers a transformative opportunity for the Indian BFSI sector to enhance operational efficiency, reduce costs, and improve customer experiences. By addressing key challenges and seizing the opportunities presented by this technology, banks can stay ahead of the curve and remain competitive in a rapidly evolving market.

To fully realize the potential of GenAI, BFSI institutions must:

- Invest in talent and skills: Build a skilled workforce with expertise in AI and data science.
- Focus on data quality and governance: Ensure data is accurate, reliable, and compliant with regulatory requirements.
- Address security and privacy concerns: Implement robust security measures to protect sensitive data.
- Foster collaboration and partnerships: Collaborate with technology providers and industry peers to share knowledge and best practices.

As the BFSI sector continues to evolve, GenAI will play an increasingly important role in driving innovation and creating new business opportunities. By embracing it, banks can position themselves for long-term success in the digital age.

