

Generative AI and Financial Services: Opportunities, Challenges, and Implications for Banking Performance

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Abstract: Generative artificial intelligence (GenAI) and agentic AI are fundamentally transforming the global financial services industry by enhancing operational efficiency, decision - making, customer engagement, and risk management. This paper examines the opportunities, challenges, and performance implications of AI adoption in banking through an analysis of global and Indian banking practices, regulatory developments, and corporate case studies. It highlights the growing performance gap between institutions that have successfully scaled AI and those constrained by fragmented pilot initiatives. The study further emphasizes the importance of enterprise - wide AI governance, robust model risk management, workforce transformation, and adaptive regulatory compliance. The paper concludes that sustainable banking performance depends on integrating technological innovation with responsible governance, strategic investment, and human oversight to create resilient, future - ready financial institutions.

Keywords: Generative Artificial Intelligence (GenAI), Agentic AI, Banking Performance, Financial Services, Artificial Intelligence Governance, Model Risk Management, Digital Banking, Operational Efficiency, Risk Analytics, Financial Innovation