

Behavioral Insights in Banking: Managing Credit Risk and Enhancing Fraud Control Mechanisms

Naga Ramesh Palakurti

Solution Architect, TCS

pnr1975@yahoo.com

<https://orcid.org/0009-0009-9500-1869>

Abstract: *The banking sector has seen significant advancements in managing credit risk and controlling fraud, with behavioral insights playing a pivotal role in transforming risk management frameworks. This paper explores how behavioral economics and data-driven technologies, including artificial intelligence (AI) and machine learning (ML), can enhance credit risk assessment and fraud detection mechanisms. By combining traditional risk management practices with insights from human behavior and predictive analytics, financial institutions can improve their ability to identify potential fraud and manage risks more effectively. This article also discusses the integration of AI/ML in Business Rules Management Systems (BRMS) for automating decision-making processes and the importance of data visualization in financial crime detection. Through a comprehensive review of existing methodologies and frameworks, we examine their impact on improving banking operations, reducing financial losses, and enhancing compliance. The paper concludes with future research directions and the potential of behavioral insights in shaping the future of banking risk management.*

Keywords: Credit Risk, Fraud Detection, Behavioral Insights, AI, Machine Learning, Business Rules Management Systems (BRMS), Financial Crime Detection, Risk Management, Data Visualization