



CENTRAL BANK OF EGYPT
Egyptian Banking Institute

Leveraging AI in Banking Risk Management

Risk Management



10650



In-Class



6 hours

Introduction

The integration of artificial intelligence (AI) and data analytics in finance is transforming risk management practices within financial institutions, enabling them to navigate the complexities of an ever-evolving regulatory landscape. This workshop explores how AI-driven models and advanced data analytics techniques can enhance the identification, assessment, and mitigation of banking risks.

It begins with a comprehensive overview of the types of risks faced by financial institutions, including credit risk, market risk, operational risk, and regulatory compliance. The discussion highlights the role of machine learning algorithms in improving risk prediction accuracy and optimizing decision-making processes. Furthermore, the workshop examines the application of big data analytics in gathering insights from diverse data sources, enhancing risk modelling capabilities, and ensuring a proactive approach to risk management. Real-world case studies demonstrate how financial institutions are leveraging AI technologies to strengthen their risk management frameworks, reduce losses, and comply with regulatory requirements.

The workshop also addresses challenges related to data privacy, ethical considerations, and the need for robust governance frameworks when implementing AI in risk management.

Course Description:

This course provides a comprehensive and practical review of the application of artificial intelligence in banking risk management. It focuses on how AI and advanced analytics are reshaping traditional risk management approaches, improving predictive accuracy, and supporting informed decision-making across banking functions.

Target Audience:

Heads and General Managers of: Risk Management, Corporate Banking, SMEs, Retail Banking, Sustainability, Audit, Compliance, Strategy, and Digital transformation.

Course Objectives:

- Discuss the importance of risk management in the banking sector and its strategic role in financial stability.

Course Outline:

- Introduction
- Importance of risk management in banking
- Artificial intelligence in banking risk management
- Types of risks faced by financial institutions and AI-driven techniques:
 - Credit risk
 - Market risk
 - Operational risk
 - Regulatory compliance risk.
- AI models in risk prediction
 - Machine learning algorithms in risk prediction
 - Neural networks for credit risk assessment
 - Big data and risk modelling
- Applications of AI in risk management:
 - Fraud detection and prevention
 - Portfolio optimization and risk mitigation
 - Real-time market monitoring
 - Implementation of ESG risk assessment.
- Benefits of AI in risk management
- Challenges in implementing AI for risk management
- Case studies of AI in risk management
- Best practices for AI-driven risk management



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Assessment Strategy:

Participants will be informally assessed on their interaction during sessions and their participation in group exercises.

Course Language:

English

Prerequisites:

Basic understanding of operational risk management concepts

Instructor:

Dr. Ahmed Fouad Khalil is a distinguished banking professional with 28 years of experience in retail, risk, and SME banking, currently serving as General Manager and Head of SME Business Development at Banque Misr. He holds a Ph.D. in Business Administration specializing in Bank Risk Modeling and a master's degree in Non-Performing Loans Management and Remediation. Dr. Ahmed has been a certified instructor at the Egyptian Banking Institute for 15 years, delivering courses on banking risk management, Basel II and III, SME banking, credit risk, operational risk, and financial inclusion. He serves as a member of the Technical Committee for Training and Financial Inclusion Committee at the Federation of Egyptian Banks and has held the position of Head of SME Group at the World Union of Arab Bankers. He is also a part-time lecturer at Ain Shams University and an expert instructor for the Union of Arab Banks, Saudi Arabian Monetary Authority, AUC, and ESCWA. He has authored numerous articles on risk management, fintech, and digital transformation.