Faysal Aziz

AI for Online Banking

Applications, risks and responsible adoption

FA-0565 · 1 day

AI for Leaders & Business

Explore AI-assisted banking services, fraud/risk analysis, personalisation, lending considerations and responsible governance.

Introduction

This one-day exploratory course introduces banking professionals to potential AI applications in online financial services. It examines customer support, fraud and risk analysis, personalisation and credit decisions at a business level.

Illustrative scenarios connect possible benefits to data quality, privacy, security, fairness, model risk and regulatory responsibilities. The course does not implement banking models, make investment or lending recommendations, or guarantee compliance or improved outcomes.

Learning outcomes

The course teaches participants to:

- Explain core AI concepts and selected online-banking applications.
- Compare opportunities in support, fraud/risk analysis, personalisation and lending.
- Identify limitations, dependencies and evaluation questions in proposed AI adoption.
- Discuss privacy, cybersecurity, fairness, accountability and relevant regulatory-review needs.
- Evaluate future scenarios as uncertain possibilities rather than guaranteed developments.

Prerequisites

- Basic knowledge of banking operations and online banking features.
- Familiarity with common technology concepts (no advanced programming knowledge required).
- Willingness to learn and an open mind.

Training outline

1. 1 — Introduction to AI in banking

- Overview of AI in the Financial Services Sector
- Historical context and evolution of technology in banking
- The role of AI in digital transformation
- Machine learning, natural-language processing and workflow automation; distinguish AI from conventional automation.

2. 2 — Core banking applications

Customer Service and Support

- Chatbots and assistants: possible service benefits, escalation and reliability limits.
- Illustrative banking-support scenarios and evaluation questions.
- Advantages and limitations of automated customer support

Fraud Detection and Risk Management

- AI-driven fraud detection techniques: Pattern recognition and anomaly detection
- Illustrative real-time fraud-screening scenarios, data requirements and response limits.
- Assess evidence for fraud-loss reduction and customer impact; account for false positives and missed cases.

Personalized Banking Services

- Machine learning for customer insights and personalization
- Product recommendations and targeted offers; distinguish information/decision support from regulated personalised financial advice.
- Challenges in balancing personalization with customer privacy

Credit Scoring and Loan Approval

- Using AI for alternative credit scoring models
- Trade-offs in speed, access and fairness; AI can introduce or amplify bias and requires evaluation.
- Key ethical considerations: Transparency and bias in AI-driven credit decisions

3. 3 — Ethics, security and regulatory context

Data Privacy and Security in AI Applications

- Managing and protecting sensitive customer data in AI applications
- Importance of data governance and cybersecurity in online banking

- Identify applicable data-protection obligations, including GDPR where relevant, for context-specific specialist review.

Ethics in AI for Banking

- Addressing bias, transparency, and accountability in AI algorithms
- Ethical considerations for customer trust in AI-driven banking services

Regulatory Landscape for AI in Financial Services

- Identify jurisdiction- and activity-specific financial obligations and model-governance requirements.
- The role of regulators in guiding responsible AI development

4. 4 — Illustrative implementation reviews

- Review illustrative AI implementation choices in banking.
- Discuss potential benefits, failures and practical adoption challenges rather than unverified success stories.
- Identify lessons and evidence needed to assess an implementation.

5. 5 — Future directions and uncertainty

- Emerging analytics and AI capabilities, and speculative technologies such as quantum computing: distinguish practical use from research possibilities.
- Compare future scenarios and uncertainty; avoid unsupported decade-ahead predictions.
- Discuss infrastructure, governance and customer needs that may shape future banking services.

6. 6 — Discussion and application

- Participant questions and clarifications on AI in banking applications
- Discussion on how AI might impact specific banking functions
- Reflections on the day’s learning and application to participants’ roles

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