

1. Record Nr.	UNINA9911019796103321
Autore	Mishra Ambrish Kumar
Titolo	Artificial Intelligence for Risk Mitigation in the Financial Industry
Pubbl/distr/stampa	Newark : , : John Wiley & Sons, Incorporated, , 2024 ©2024
ISBN	1-394-17557-4 1-394-17556-6
Edizione	[1st ed.]
Descrizione fisica	1 online resource (376 pages)
Altri autori (Persone)	AnandShweta DebnathN. C (Narayan C.) PokhriyalPurvi PatelaArcana
Disciplina	332.0285/63
Soggetti	Finance - Technological innovations Artificial intelligence - Economic aspects
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Cover -- Series Page -- Title Page -- Copyright Page -- Contents -- Preface -- Chapter 1 Artificial Intelligence in Risk Management -- 1.1 Introduction -- 1.1.1 Context and the Driving Force Behind It -- 1.1.2 Aim of This Chapter -- 1.1.3 Outline of This Chapter -- 1.2 The Role of AI in Risk Management -- 1.2.1 The Significance of Risk Management -- 1.2.2 Deficiencies in Conventional Methods of Risk Management -- 1.2.3 The Requirement for Advanced Methods -- 1.3 Role of Artificial Intelligence in Risk Management -- 1.3.1 An Overview of Artificial Intelligence and Its Applications -- 1.3.2 Applications of AI-Based Methods in Risk Management -- 1.4 The Challenges of Implementing AI-Based Risk Management Systems -- 1.5 The Benefits of Using Artificial Intelligence in Risk Management -- 1.6 Conclusions and Future Considerations of AI in Risk Management -- 1.6.1 A Brief Review of the Role of AI in Risk Management -- 1.6.2 Perspectives on the Future -- 1.6.3 The Transformative Power of AI in Risk Management -- 1.7 The Implications and Factors to Take Into Account While Using AI in Risk Management -- 1.8 Overcoming Obstacles and Putting AI to Work in Risk Management -- 1.9 Conclusion -- References -- Chapter 2

Application of Artificial Intelligence in Risk Assessment and Mitigation in Banks -- 2.1 Introduction -- 2.2 Transitions in Banking Due to AI -- 2.3 Risk Assessment and Mitigation through Artificial Intelligence -- 2.3.1 Fraud Recognition -- 2.3.2 Regulatory Compliance Management -- 2.3.3 Credit Risk Modeling -- 2.3.4 Insider Threat Prevention -- 2.4 General Banking Regulations Pertaining to Artificial Intelligence -- 2.5 Methodology -- 2.5.1 Bibliometric Analysis -- 2.5.2 Co-Occurrence Analysis -- 2.6 Theoretical Implications -- 2.7 Managerial Implications -- 2.8 Future Scope -- 2.9 Conclusion -- References.

Chapter 3 Artificial Intelligence and Financial Risk Mitigation -- 3.1 Introduction -- 3.2 Artificial Intelligence, Financial Sector, and Risk Mitigation -- 3.2.1 AI and Financial Risk Detection Processes -- 3.2.2 AI and Financial Risk Recognition Techniques -- 3.2.2.1 Risk Assessment and Prediction -- 3.2.2.2 Fraud Detection and Anticipation -- 3.2.2.3 Risk Modeling and Stress Testing -- 3.2.2.4 Portfolio Optimization and Asset Allocation -- 3.2.2.5 Regulatory Compliance -- 3.2.2.6 Cybersecurity and Data Privacy -- 3.2.2.7 Chatbots and Customer Service -- 3.2.2.8 Loan Underwriting and Processing -- 3.3 Financial Risks and AI Mitigation Practices -- 3.3.1 Credit Risk and Artificial Intelligence -- 3.3.2 Market Risk and Artificial Intelligence -- 3.3.3 Liquidity Risk and Artificial Intelligence -- 3.3.4 Operation Risk and Artificial Intelligence -- 3.3.5 Compliance Risk and Artificial Intelligence -- 3.4 AI and Financial Risk Mitigation Procedures -- 3.4.1 Identification and Assessment of Risks -- 3.4.2 Risk Prioritization -- 3.4.3 Developing Risk Mitigation Policies -- 3.4.4 Implementation of Risk Control Policies -- 3.4.5 Monitor and Evaluate Risk Mitigation Procedures -- 3.4.6 Testing and Validation -- 3.4.7 Continuously Improving the Risk Mitigation Process -- 3.5 Conclusion -- References -- Chapter 4 Artificial Intelligence Adoption in the Indian Banking and Financial Industry: Current Status and Future Opportunities -- 4.1 Introduction -- 4.2 Literature Review -- 4.2.1 Introduction to AI -- 4.2.2 Applications of Artificial Intelligence -- 4.2.2.1 AI Applications in e-Commerce -- 4.2.2.2 Applications of AI in Education -- 4.2.2.3 AI Applications in Agriculture -- 4.2.2.4 Artificial Intelligence in the Banking and Financial Industry -- 4.2.2.5 Utilization of AI in the Indian Banking and Financial Industry -- 4.3 Research Methodology.

4.4 Findings of the Study -- 4.4.1 Current Status of AI-Based Application Adoption in the Indian Banking and Financial Industry -- 4.4.2 Future Opportunities in the Adoption of AI-Based Applications in the Indian Banking and Financial Industry -- 4.4.3 Challenges to the Deployment of AI in the Indian Banking and Financial Services Industry -- 4.5 Conclusion -- References -- Chapter 5 Impact of AI Adoption in Current Trends of the Financial Industry -- 5.1 Introduction -- 5.1.1 Brief Overview of AI Technology -- 5.1.2 Importance of AI Adoption in the Financial Industry -- 5.1.3 Impact of AI on Traditional Financial Services -- 5.2 AI-Based Trading and Investment Management -- 5.2.1 Role of AI in Trading and Investment Management -- 5.2.2 AI-Powered Robot-Advisory Services -- 5.2.3 AI-Based Risk Management and Portfolio Optimization -- 5.3 Fraud Detection and Prevention -- 5.3.1 Role of AI in Fraud Detection and Prevention -- 5.3.2 Real-Time Fraud Monitoring Using AI -- 5.3.3 Machine Learning-Based Fraud Prevention Techniques -- 5.4 Customer Service and Personalization -- 5.4.1 AI-Powered Chatbots for Customer Service -- 5.4.2 Personalized Recommendations and Offerings Using AI -- 5.5 Compliance and Regulatory Reporting -- 5.5.1 Streamlining Regulatory Reporting with AI -- 5.5.2 Risk Assessment and Compliance Monitoring Using AI -- 5.6 Impact of AI on Employment in the Financial Industry -- 5.6.1 Potential Job Displacement Due to AI Adoption -- 5.6.2 Opportunities

for New Roles and Skills in the Industry -- 5.6.3 The Need for Reskilling and Upskilling the Workforce -- 5.7 Ethical and Social Implications of AI Adoption -- 5.7.1 Ensuring Transparency and Accountability in AI Decision-Making -- 5.7.2 Ethical Concerns Around AI Adoption in Finance -- 5.7.3 Addressing Potential Biases and Discrimination in AI-Based Financial Services.

5.8 Future of AI Adoption in the Financial Industry -- 5.8.1 Emerging Trends and Technologies in AI Adoption in Finance -- 5.8.2 Opportunities for Innovation and Growth in the Industry -- 5.8.3 Challenges and Limitations to Widespread Adoption of AI -- 5.9 Case Studies on AI Adoption in the Financial Industry -- 5.9.1 ICICI Bank -- 5.9.2 HDFC Bank -- 5.9.3 Bank of America -- 5.9.4 Real-World Examples of Successful AI Adoption in Finance -- 5.9.5 Impact of AI on Business Operations and Customer Experience -- 5.9.6 Lessons Learned From AI Implementation in the Financial Industry -- 5.10 Conclusion and Future Directions -- 5.10.1 Summary of the Key Findings and Insights from the Chapter -- 5.10.2 Recommendations for Future Research and Development in AI Adoption in Finance -- 5.10.3 The Role of Policymakers, Regulators, and Industry Leaders in Shaping the Future of AI in Finance -- 5.11 Conclusion -- References -- Chapter 6 Artificial Intelligence Applications in the Indian Financial Ecosystem -- 6.1 Introduction -- 6.2 Literature Review -- 6.3 Evolution: From Operations to Risk Management -- 6.4 Banking Services -- 6.5 Payment Systems -- 6.6 Digital Lending -- 6.7 Credit Scoring/Creditworthiness/Direct Lending -- 6.8 Stockbrokers and Wealth Management -- 6.9 Mutual Funds and Asset Management -- 6.10 Insurance Services -- 6.11 Indian Financial Regulators -- 6.12 Challenges in Adoption -- 6.13 Conclusion -- References -- Chapter 7 The Extraction of Features That Characterize Financial Fraud Behavior by Machine Learning Algorithms -- 7.1 Introduction -- 7.2 The Framework of Gibbs Sampling Algorithm -- 7.2.1 The Summary of Gibbs Sampling Algorithm -- 7.2.2 The Framework of Associative Feature Extraction Method -- 7.3 The Framework in Screening Features for Corporate Financial Fraud Behaviors.

7.3.1 The Framework of Holographic Risk Assessment Based on the CAFÉ System -- 7.3.2 The Structure of the Company's Financial Fraud Early Warning Risk System -- 7.3.3 The Method for Extracting Financial Fraud Characteristics of Listed Companies -- 7.3.3.1 Static Analysis -- 7.3.3.2 Dynamic (Trend) Analysis -- 7.3.3.3 Comparison of Peers -- 7.3.3.4 The Insight for the Relationship Between Financial Statements and Audits -- 7.3.4 Feature Extraction Based on AUC and ROC Testing for Financial Frauds -- 7.3.5 The Corporate Governance Framework of Financial Fraud Indicators -- 7.4 The Case Study for Financial Frauds from Listed Companies -- 7.4.1 The Case Study Background -- 7.4.2 The Case Study by Qualitative Analysis -- 7.4.3 The Quantitative Analysis Based on the CAFÉ Risk Evaluation System -- 7.4.4 Case Study Results and Remark -- 7.5 Conclusion -- Appendix A: The Description for Eight Types of Financial Frauds -- Appendix B: The Summary of 12 Classes of Data Types in Describing Financial Fraud Behaviors -- References -- Chapter 8 A New Surge of Interest in the Cybersecurity of VIP Clients is the First Step Toward the Return of the Previously Used Positioning Practice in Domestic Private Banking -- 8.1 Introduction -- 8.1.1 Cyber Hygiene -- 8.2 VIP Clients -- 8.3 Cyber Defense Against Simple Threats -- 8.4 Conclusion -- References -- Chapter 9 Determinants of Financial Distress in Select Indian Asset Reconstruction Companies Using Artificial Neural Networks -- Abbreviations -- 9.1 Introduction -- 9.2 Brief Review of Literature -- 9.3 Research Design -- 9.4 Data Analysis and Interpretation -- 9.4.1 Financial Ratio Analysis --

9.4.2 Altman's Z-Score Analysis -- 9.4.3 Determinants of Financial Distress in Indian ARCs-Analysis Using MLP-ANN -- 9.4.4 Impact of IBC, 2016, on the Capital Structure of Indian ARCs -- 9.5 Conclusion -- References -- Appendices.

Chapter 10 The Framework of Feature Extraction for Financial Fraud Behavior and Applications.

Sommario/riassunto

Artificial Intelligence for Risk Mitigation in the Financial Industry This book extensively explores the implementation of AI in the risk mitigation process and provides information for auditing, banking, and financial sectors on how to reduce risk and enhance effective reliability. The applications of the financial industry incorporate vast volumes of structured and unstructured data to gain insight into the financial and non-financial performance of companies. As a result of exponentially increasing data, auditors and management professionals need to enhance processing capabilities while maintaining the effectiveness and reliability of the risk mitigation process. The risk mitigation and audit procedures are processes involving the progression of activities to "transform inputs into output." As AI systems continue to grow mainstream, it is difficult to imagine an aspect of risk mitigation in the financial industry that will not require AI-related assurance or AI-assisted advisory services. AI can be used as a strong tool in many ways, like the prevention of fraud, money laundering, and cybercrime, detection of risks and probability of NPAs at early stages, sound lending, etc. Audience This is an introductory book that provides insights into the advantages of risk mitigation by the adoption of AI in the financial industry. The subject is not only restricted to individuals like researchers, auditors, and management professionals, but also includes decision-making authorities like the government. This book is a valuable guide to the utilization of AI for risk mitigation and will serve as an important standalone reference for years to come.