

1. Record Nr.	UNINA9911020222603321
Autore	Sharma Renuka
Titolo	Deep Learning Tools for Predicting Stock Market Movements
Pubbl/distr/stampa	John Wiley & Sons, Inc, 2024 Newark : , : John Wiley & Sons, Incorporated, , 2024 ©2024
ISBN	9781394214327 1394214324 9781394214334 1394214332
Edizione	[1st ed.]
Descrizione fisica	1 online resource (489 pages)
Altri autori (Persone)	MehtaKiran
Disciplina	332.63222028563
Soggetti	Stock price forecasting Deep learning (Machine learning)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Cover -- Title Page -- Copyright Page -- Dedication Page -- Contents -- Preface -- Acknowledgments -- Chapter 1 Design and Development of an Ensemble Model for Stock Market Prediction Using LSTM, ARIMA, and Sentiment Analysis -- 1.1 Introduction -- 1.2 Significance of the Study -- 1.3 Problem Statement -- 1.4 Research Objectives -- 1.5 Expected Outcome -- 1.6 Chapter Summary -- 1.7 Theoretical Foundation -- 1.7.1 Sentiment Analysis -- 1.7.1.1 Subjectivity -- 1.7.1.2 Polarity -- 1.7.2 Stock Market -- 1.7.3 Sentiment Analysis of Twitter in Stock Market Prediction -- 1.7.4 Machine Learning Algorithms in Stock Market Prediction -- 1.8 Research Methodology -- 1.8.1 Stock Sentiment Data Fetching Through API -- 1.8.1.1 Stock Market Data Fetching -- 1.8.1.2 Sentiment Data Preprocessing -- 1.8.1.3 Stock Data Preprocessing -- 1.8.2 Project Plan -- 1.8.3 Use Case Diagram -- 1.8.4 Data Collection -- 1.8.5 Dataset Description -- 1.8.5.1 Tweets Precautions -- 1.8.5.2 Consolidation of Sentiment and Stock Price Data -- 1.8.6 Algorithm Description -- 1.8.6.1 ARIMA -- 1.8.6.2 LSTM -- 1.8.6.3 TextBlob -- 1.9 Analysis and Results -- 1.10 Conclusion -- 1.10.1 Limitation -- 1.10.2 Future Work -- References

-- Chapter 2 Unraveling Quantum Complexity: A Fuzzy AHP Approach to Understanding Software Industry Challenges -- 2.1 Introduction -- 2.2 Introduction to Quantum Computing -- 2.3 Literature Review -- 2.4 Research Methodology -- 2.5 Research Questions -- 2.6 Designing Research Instrument/Questionnaire -- 2.7 Results and Analysis -- 2.8 Result of Fuzzy AHP -- 2.9 Findings, Conclusion, and Implication -- References -- Chapter 3 Analyzing Open Interest: A Vibrant Approach to Predict Stock Market Operator's Movement -- 3.1 Introduction -- 3.2 Methodology -- 3.3 Concept of OI -- 3.4 OI in Future Contracts -- 3.4.1 Interpreting OI & Price Movement. -- 3.4.2 Open Interest and Cumulative Open Interest -- 3.4.3 Validation -- 3.4.4 Case Study with Live Market Data -- 3.5 OI in Option Contracts -- 3.5.1 Decoding Buyer or Seller in Option Chain -- 3.5.2 Put-Call Ratio (PCR) -- 3.5.3 Detection of Anomaly in Stock Price -- 3.6 Conclusion -- References -- Chapter 4 Stock Market Predictions Using Deep Learning: Developments and Future Research Directions -- 4.1 Background and Introduction -- 4.1.1 Machine Learning -- 4.1.2 About Deep Learning -- 4.2 Studies Related to the Current Work, i.e., Literature Review -- 4.3 Objective of Research and Research Methodology -- 4.4 Results and Analysis of the Selected Papers -- 4.5 Overview of Data Used in the Earlier Studies Selected for the Current Research -- 4.6 Data Source -- 4.7 Technical Indicators -- 4.7.1 Other (Advanced Technical Indicators) -- 4.8 Stock Market Prediction: Need and Methods -- 4.9 Process of Stock Market Prediction -- 4.10 Reviewing Methods for Stock Market Predictions -- 4.11 Analysis and Prediction Techniques -- 4.12 Classification Techniques (Also Called Clustering Techniques) -- 4.13 Future Direction -- 4.13.1 Cross-Market Evaluation or Analysis -- 4.13.2 Various Data Inputs -- 4.13.3 Unexplored Frameworks -- 4.13.4 Trading Strategies Based on Algorithm -- 4.14 Conclusion -- References -- Chapter 5 Artificial Intelligence and Quantum Computing Techniques for Stock Market Predictions -- 5.1 Introduction -- 5.2 Literature Survey -- 5.3 Analysis of Popular Deep Learning Techniques for Stock Market Prediction -- 5.3.1 Blind Quantum Computing (BQC) in Stock Market Prediction -- 5.3.2 Quantum Neural Networks (QNNs) for Time Series Forecasting -- 5.3.3 Artificial Intelligence-Based Algorithms -- 5.3.3.1 Deep Learning Models -- 5.3.3.2 Support Vector Machines (SVM) -- 5.3.3.3 Reinforcement Learning (RL) -- 5.3.4 Quantum Computing-Based Algorithms. -- 5.3.4.1 Quantum Machine Learning (QML) -- 5.3.4.2 Quantum Optimization -- 5.4 Data Sources and Methodology -- 5.5 Result and Analysis -- 5.6 Challenges and Future Scope -- 5.6.1 Challenges -- 5.6.2 Future Scope -- 5.7 Conclusion -- References -- Chapter 6 Various Model Applications for Causality, Volatility, and Co-Integration in Stock Market -- 6.1 Introduction -- 6.2 Literature Review -- 6.3 Objectives of the Chapter -- 6.4 Methodology -- 6.5 Result and Discussion -- 6.6 Implications -- 6.7 Conclusion -- References -- Chapter 7 Stock Market Prediction Techniques and Artificial Intelligence -- 7.1 Introduction -- 7.2 Financial Market -- 7.3 Stock Market -- 7.4 Stock Market Prediction -- 7.4.1 Consideration of Analysis for Stock Prediction -- 7.4.2 The Necessity of Stock Prediction -- 7.5 Artificial Intelligence and Stock Prediction -- 7.5.1 Artificial Intelligence-Based Techniques for Predicting the Stock Market -- 7.6 Benefits of Using AI for Stock Prediction -- 7.7 Challenges of Using AI for Stock Prediction -- 7.8 Limitations of AI-Based Stock Prediction -- 7.9 Conclusion -- References -- Chapter 8 Prediction of Stock Market Using Artificial Intelligence Application -- 8.1 Introduction -- 8.1.1 Stock Market -- 8.1.2 Artificial Intelligence -- 8.2 Objectives -- 8.3 Literature Review --

8.4 Future Scope -- 8.5 Sources of Study and Importance -- 8.5.1 Data Collection -- 8.5.2 Feature Selection -- 8.5.3 Implementation of AI Techniques -- 8.6 Case Study: Comparison of AI Techniques for Stock Market Prediction -- 8.7 Discussion and Conclusion -- 8.7.1 Overall Results -- 8.7.2 Challenges and Limitations -- 8.7.3 Insights and Recommendations -- 8.7.4 Conclusion -- References -- Chapter 9 Stock Returns and Monetary Policy -- 9.1 Introduction -- 9.2 Literature -- 9.3 Data and Methodology -- 9.4 Index-Based Analysis -- 9.5 Firm-Level Analysis.

9.5.1 Sectoral Difference -- 9.6 The Impact of Financial Constraints -- 9.7 Discussion and Conclusion -- References -- Appendix 1 -- Appendix 2 -- Chapter 10 Revolutionizing Stock Market Predictions: Exploring the Role of Artificial Intelligence -- 10.1 Introduction -- 10.2 Review of Literature -- 10.3 Research Methods -- 10.4 Results and Discussion -- 10.4.1 Discussion on the Literature on Artificial Intelligence -- 10.4.2 Discussion on Artificial Intelligence and Stock Prediction -- 10.5 Conclusion -- 10.6 Significance of the Study -- 10.7 Scope of Further Research -- References -- Chapter 11 A Comparative Study of Stock Market Prediction Models: Deep Learning Approach and Machine Learning Approach -- 11.1 Introduction -- 11.1.1 Stock Market -- 11.2 Stock Market Prediction -- 11.2.1 Data Types -- 11.3 Models for Prediction in Stock Market -- 11.3.1 Traditional Methods -- 11.3.2 Modern Techniques -- 11.3.2.1 Artificial Intelligence -- 11.3.2.2 Machine Learning -- 11.3.2.3 Deep Learning Approach -- 11.4 Conclusion -- References -- Chapter 12 Machine Learning and its Role in Stock Market Prediction -- 12.1 Introduction -- 12.2 Literature Review -- 12.2.1 How ML is Applied to Stock Prediction -- 12.2.2 Best Machine Learning Methods for Predicting Stock Prices -- 12.2.3 Approaches to Stock Price Prediction -- 12.3 Standard ML -- 12.4 DL -- 12.5 Implementation Recommendations for ML Algorithms -- 12.5.1 Fundamental and Technical Analysis Data Types -- 12.5.2 Selection of Data Sources -- 12.5.3 Using ML to Sentiment Analyses -- 12.6 Overcoming Modeling and Training Challenges -- 12.6.1 The Benefit of Machine Learning for Stock Prediction -- 12.6.2 Challenges with ML-Based Stock Prediction -- 12.7 Problems with Current Mechanisms -- 12.8 Case Study -- 12.9 Research Objective -- 12.9.1 Justification for Sample Size and Sample Selection Criteria.

12.10 Conclusion -- 12.11 Future Scope -- References -- Chapter 13 Systematic Literature Review and Bibliometric Analysis on Fundamental Analysis and Stock Market Prediction -- 13.1 Introduction -- 13.2 Fundamental Analysis -- 13.3 Machine Learning and Stock Price Prediction/Machine Learning Algorithms -- 13.4 Related Work -- 13.5 Research Methodology -- 13.6 Analysis and Findings -- 13.6.1 Publication Activity of Fundamental Analysis and Stock Price Prediction -- 13.6.2 Top Authors, Countries, and Institutions of Fundamental Analysis and Stock Market Prediction -- 13.6.3 Top Journals for Fundamental Analysis and Stock Market Prediction Research -- 13.6.4 Top Articles in Fundamental Analysis and Stock Market Prediction -- 13.6.5 Keyword Occurrence Analysis in Stock Price Prediction Research -- 13.6.6 Thematic Clusters of Stock Market Prediction Through Bibliographic Coupling -- 13.6.7 List of Machine Learning Algorithms Used -- 13.6.8 List of Training and Testing Dataset Criteria Used -- 13.6.9 List of Evaluation Metrics Used -- 13.6.10 List of Factors Used in Fundamental Analysis -- 13.6.11 List of Technical Indicators Used -- 13.6.12 List of Feature Selection Criteria -- 13.7 Discussion and Conclusion -- References -- Chapter 14 Impact of Emotional Intelligence on Investment Decision -- 14.1 Introduction -- 14.2 Literature Review -- 14.3 Research Methodology -- 14.4 Data Analysis

-- 14.4.1 Reliability Analysis -- 14.4.2 Factors Naming -- 14.4.3 Multiple Regression Analysis -- 14.5 Discussion, Implications, and Future Scope -- 14.6 Conclusion -- References -- Chapter 15 Influence of Behavioral Biases on Investor Decision-Making in Delhi-NCR -- 15.1 Introduction -- 15.2 Literature Review -- 15.2.1 Overconfidence Bias -- 15.2.2 Illusion of Control Bias -- 15.2.3 Optimism Bias -- 15.3 Research Hypothesis -- 15.4 Methodology -- 15.4.1 Result. 15.5 Discussion.

Sommario/riassunto

This book, edited by Renuka Sharma and Kiran Mehta, explores the application of deep learning tools for predicting stock market movements. It provides a comprehensive overview of various methodologies and models, including LSTM, ARIMA, and sentiment analysis, used for stock market prediction. The book discusses the integration of artificial intelligence, quantum computing, and machine learning techniques to enhance predictive accuracy in stock market forecasting. It also addresses the challenges and future research directions in this field, making it a valuable resource for researchers, practitioners, and students in finance and technology.
