Coca cola stock Analysis

Coca Cola Stock Analysis Project

by

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Introduction

- This project focuses on analyzing and predicting Coca-Cola (KO) stock prices using historical market data.
- The aim is to identify trends, perform technical analysis, and build machine learning models to forecast stock prices.
- Stock market analysis plays a very important role in understanding how companies perform financially over time.
- Investors and analysts use stock price data to study trends, risks, and future growth opportunities.
- In this project, historical stock data such as Open, High, Low, Close prices, Volume, Dividends, and Stock Splits are collected and analyzed.

Tools & Technologies Used

- **Python** – Main programming language
- **Pandas & NumPy** – Data cleaning and calculations
- **Matplotlib & Seaborn** – Data visualization
- **Yahoo Finance API** – Stock data collection
- **Machine Learning (Random Forest)** – Price prediction
- **Excel & SQL** – Data handling and analysis

Methodology

- Collected Coca-Cola stock data from Yahoo Finance
- Cleaned missing and incorrect values
- Performed Exploratory Data Analysis (EDA)
- Created new features like Moving Averages and Volatility
- Trained a Machine Learning model
- Evaluated model performance
- Predicted future stock prices and Live Prediction System

Results

- Stock trends clearly show long-term growth with stable volatility.
- Moving averages help identify bullish and bearish trends.
- Random Forest model achieved low MAE and MSE.
- Backtesting shows strong long-term returns for Coca-Cola stock.
- Machine learning model predicted prices with **low error.**

Conclusion

- Coca-Cola stock demonstrates stable growth and low risk.
- Machine learning models can effectively predict stock trends.
- This project provides a strong foundation for live trading dashboards and investment analysis.
- Data analysis helps understand market behavior
- Machine learning improves price prediction accuracy
- The Machine Learning model provided reasonably accurate predictions of the stock’s closing price.
- this project highlights the importance of data-driven decision making in financial markets.

Reference

GitHub Link: https://github.com/Yashu-teach/Coca-Cola-Stock-Analysis-Project

Thank you