Apple – Stock performance analysis research methods.

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# Abstract

This research aims to provide a thorough analysis of Apple Inc.'s stock performance. For performance analysis, we utilized Yahoo Finance to gather historical data spanning from January 1, 2000, to January 20, 2024. The data were one encompassing all stock-related data, and the other solely containing yearly stock volume information.

# Introduction

Apple is a multinational technology company based in Cupertino, California12; Apple has been at the forefront of innovation with its consumer electronics, computer software, and online services. The company’s best-known products include the iPhone, iPad, and Mac computers.

Apple Inc. stands as an iconic player in the global technology landscape, its trajectory intertwined with innovations that have shaped the way individuals interact with and perceive technology. Beyond its revolutionary products, Apple's stock performance has been a focal point for investors seeking to navigate the dynamic and often unpredictable nature of financial markets. This research undertakes a comprehensive analysis of Apple's stock performance spanning the years 2020 to 2024, a period marked by both unprecedented challenges and transformative opportunities.

The years 2020-2024 encapsulate a spectrum of events, from the onset of the COVID-19 pandemic, which disrupted global markets, to Apple's continued product innovations, regulatory developments, and shifts in consumer behavior. Understanding the intricacies of Apple's stock dynamics during this timeframe necessitates a multifaceted approach, combining quantitative and qualitative research methods. By peering into financial statements, market trends, key events, and sentiment indicators, this analysis aims to unravel the factors shaping Apple's stock trajectory.

As technology continues to evolve and influence various facets of our lives, the stock performance of industry giants like Apple reflects not only the company's intrinsic dynamics but also broader shifts in the technological landscape. Apple's strategic decisions, product launches, and responses to external factors contribute to the intricate dance of supply and demand in the stock market. Through this research, we seek to provide stakeholders, analysts, and investors with a nuanced understanding of the forces driving Apple's stock performance, ultimately enabling informed decision-making in the dynamic world of financial markets.

# Methods and Results

# For performance analysis, we utilized Yahoo Finance to gather historical data spanning from January 1, 2000, to January 20, 2024. This data was then organized into two separate CSV files: one encompassing all stock-related data, and the other solely containing yearly stock volume information.

# A picture containing icon Description automatically generated

1. Data analysis.

To conduct this analysis several libraries from python where used:

A black screen with white text

Description automatically generated

Result:

# AAPL

# Stock prices 2000-2024

A graph of growth in years

Description automatically generated with medium confidence

# This graph shows that the stock was relatively stable for a period, and then it started to increase significantly. This indicate a positive performance of the stock over the observed period.

A close up of text

Description automatically generated

# AAPL

# Volume 2000-2024

# A graph of a number of years Description automatically generated

This graph shows that there was initially a high volume of the metric, which then significantly decreased and stabilized at a lower level. This could indicate a decrease in sales, stock trading volume, or any other measurable factor over time.

**Volume of Stock Traded**

A graph of a stock trading graph

Description automatically generated with medium confidenceA graph of blue bars

Description automatically generated with medium confidence

# This volume visualized since 2000 – 2024

# This volume-by-year summing the volum by year shows that the stocks volume increased during 2006 -2009.

# Market capitalization

# https://lh7-us.googleusercontent.com/tQPoPgH3z6Is7RI-71Qb45HDijY-PzdXAHs-j7XQiESGf9_W9L7SonE17cfmI46xVCndHBsrh1hwN9juso1RPxELbtijeUo53BtrAaDUn-BLP2zl4sJxXeph4Nhm8WKd1ttBYWWaoo16LfAeSDdKPw=s2048

# A close-up of a computer code Description automatically generated

# Market capitalization has significantly increased from around 2000 to 2022, indicating the company’s substantial growth over these years. There are periods of rapid growth and volatility, which could be linked to product launches, financial announcements, or other significant events.

A screen shot of a computer code

Description automatically generatedA line graph with numbers and a line

Description automatically generated**Moving Averages**

# Both the 50-day and 200-day moving averages follow the trend of the opening prices closely, smoothing out short-term fluctuations and highlighting the underlying trend. The moving averages provide insights into potential trends and reversals, offering a clearer picture of long-term and short-term movements.

**Conclusion**

Apple's strong growth and status as a safe investment continue to solidify its reputation as a well-established and respected brand.

Apple's sustained growth and investment appeal reaffirm its enduring reputation as a trusted and valuable brand.