



A Study On Fundamental And Technical Analysis Of The IT Sector In The United States Of America (U.S.A) *For Capstone Securities Analysis Pvt Ltd*

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Abstract: This research paper examines the financial and market performance of leading companies in the United States IT sector, including Apple Inc., Microsoft Corporation, NVIDIA Corporation, and Alphabet Inc. (Google). Leveraging both fundamental and technical analysis, the study explores the financial health, market dynamics, and strategic drivers of these organizations over the past five years. Key tools such as ratio analysis, earnings growth, and the stock charts are employed to identify trends and insights. Findings reveal that these firms exhibit robust financial stability, consistent revenue growth, and sustained market leadership driven by innovation. Apple and Microsoft showcase resilience through diversified product portfolios, NVIDIA dominates the high-performance computing and AI markets, and Google leads digital advertising and cloud services. The analysis underscores the importance of integrating financial health and technical market performance in evaluating long-term investment prospects. These insights aim to guide investors and stakeholders in strategic decision-making, highlighting trends shaping the IT sector's future.

Index Terms - IT sector, Financial Analysis, Technical Analysis, Market Performance, Innovation, Profitability, Stock Trends, Investment Strategies

I. INTRODUCTION

The Information Technology (IT) sector is a cornerstone of modern economies, driving innovation, shaping industries, and transforming global business landscapes. In the United States, the IT sector plays a pivotal role in advancing technological development, fostering economic growth, and enhancing productivity across sectors. This sector comprises various subfields, including software development, hardware manufacturing, cloud computing, artificial intelligence (AI), and digital services, which collectively contribute to its dynamic and rapidly evolving nature.

Four leading companies Apple Inc., Microsoft Corporation, NVIDIA Corporation, and Alphabet Inc. (Google) exemplify the sector's innovation and market leadership. Each company represents distinct strengths: Apple, known for its ecosystem of consumer devices and services; Microsoft, a global leader in enterprise solutions and cloud computing; NVIDIA, a pioneer in AI and graphics processing technologies; and Google, the dominant force in digital advertising and cloud services.

This paper examines the fundamental and technical performance of these companies over the past five years (2019–2023), focusing on financial health, market trends, and strategic initiatives. By analysing key financial metrics such as revenue growth, earnings per share (EPS), and return on equity (ROE), alongside technical indicators like moving averages and RSI, this research provides a holistic view of their performance.

The study also delves into macroeconomic and sectoral trends that influence the IT industry, including the rise of AI, cloud computing, and digital transformation, as well as the challenges posed by global market fluctuations and regulatory pressures. Through this analysis, the research aims to provide actionable insights for investors, stakeholders, and policymakers, enabling informed decisions in an increasingly competitive and dynamic market.

This introduction sets the stage for an in-depth exploration of the strategies and market dynamics that drive success in the IT sector, offering a framework to understand the industry's present and future trajectories.

II. RESEARCH OBJECTIVES

- To analyze the fundamental financial metrics of Apple, Microsoft, NVIDIA, and Google.
- To study the technical market trends and stock performance of these companies.
- To provide recommendations based on the analysis for investors and stakeholders.

III. RESEARCH FRAMEWORK

The study adopts a descriptive and analytical approach, combining both qualitative and quantitative methods.

- **Data Collection:** Primary data from interviews with financial analysts and secondary data from financial statements, industry reports, and stock market databases.
- **Analysis Tools:**
 - Fundamental analysis using financial ratios like EPS, ROE, and debt-to-equity ratio.
 - Technical analysis employing moving averages, RSI, and trend charts to study stock movements.
- **Comparative Analysis:** Examining financial and market performance across the four companies to identify patterns and best practices.

IV. SCOPE OF STUDY

- **Geographical Scope:** The study focuses on the United States of America (U.S.A) of America (U.S.A) of America (U.S.A) IT sector.
- **Sectoral Scope:** The study specifically targets major players in the IT industry: Apple, Microsoft, NVIDIA, and Google.
- **Time Scope:** The study will analyse data from the past to provide a comprehensive view of trends and performance.
- **Analytical Scope:** The study includes both fundamental analysis (financial health, profitability, growth) and technical analysis (stock trends, market performance).

V. LITERATURE REVIEW

Graham, B., & Dodd, D. (1934). Security Analysis

Graham and Dodd's work is a cornerstone of fundamental analysis, focusing on intrinsic value derived from financial statements and growth prospects. Their "margin of safety" concept emphasizes buying securities below intrinsic value to minimize risks, advocating for long-term investment strategies over short-term market trends.

Murphy, J. J. (1999). Technical Analysis of the Financial Markets

Murphy's book provides an in-depth guide to technical analysis, covering chart patterns, moving averages, RSI, and MACD. It emphasizes understanding market psychology and using volume trends to validate price movements, offering practical strategies for trading and investing.

Fama, E. F. (1970). Efficient Capital Markets

Fama's Efficient Market Hypothesis (EMH) posits that stock prices reflect all available information, making consistent above-market returns unlikely. EMH challenges the effectiveness of fundamental and technical analysis but acknowledges market anomalies and behavioural biases.

Jegadeesh, N., & Titman, S. (1993). Momentum Investing

This study demonstrates momentum effects in stock prices, showing that past winners often continue to perform well in the short term. It challenges EMH by highlighting investor behavior and market psychology as key drivers of price trends.

Bodie, Z., Kane, A., & Marcus, A. J. (2014). Investments

This textbook explores both fundamental and technical analysis, valuation methods like DCF, and risk management strategies. It emphasizes market dynamics, behavioural finance, and the balance between risk and return in portfolio management.

VI. DATA ANALYSIS

1) Fundamental Analysis of The It Sector in The United State of America (U.S.A)

- Market Share % of Key Players in IT Sector

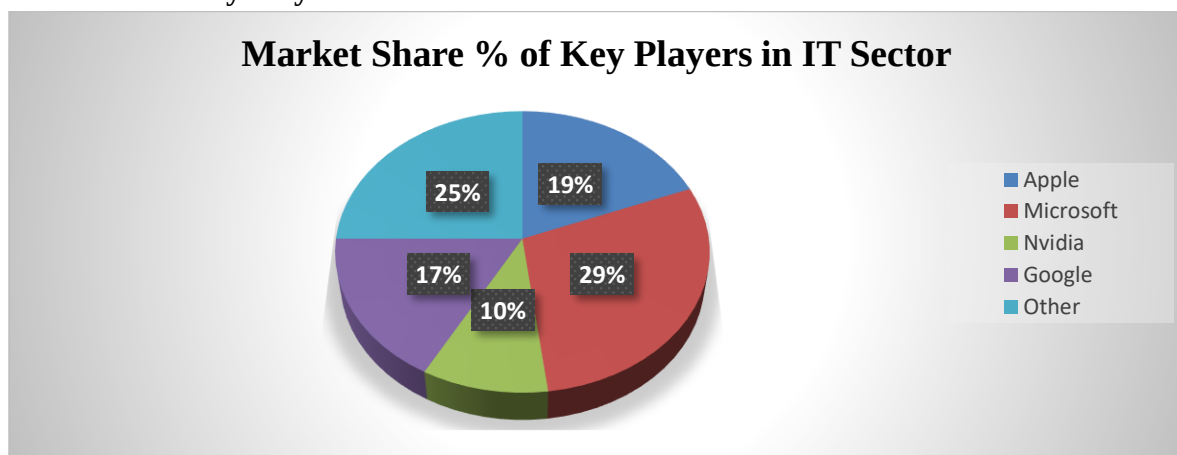


Figure 1 Market Share % of Key Players in IT Sector

Apple (19%), Microsoft (29%), NVIDIA (10%), and Google (17%) dominate the IT market, while the remaining 25% consists of smaller companies across hardware, software, and services.

2) **Market capitalization of the IT sector in the United States of America (U.S.A) for the last five years.**

- **Market Capitalization of IT sector in U.S.A over last five year (USD Trillion)**

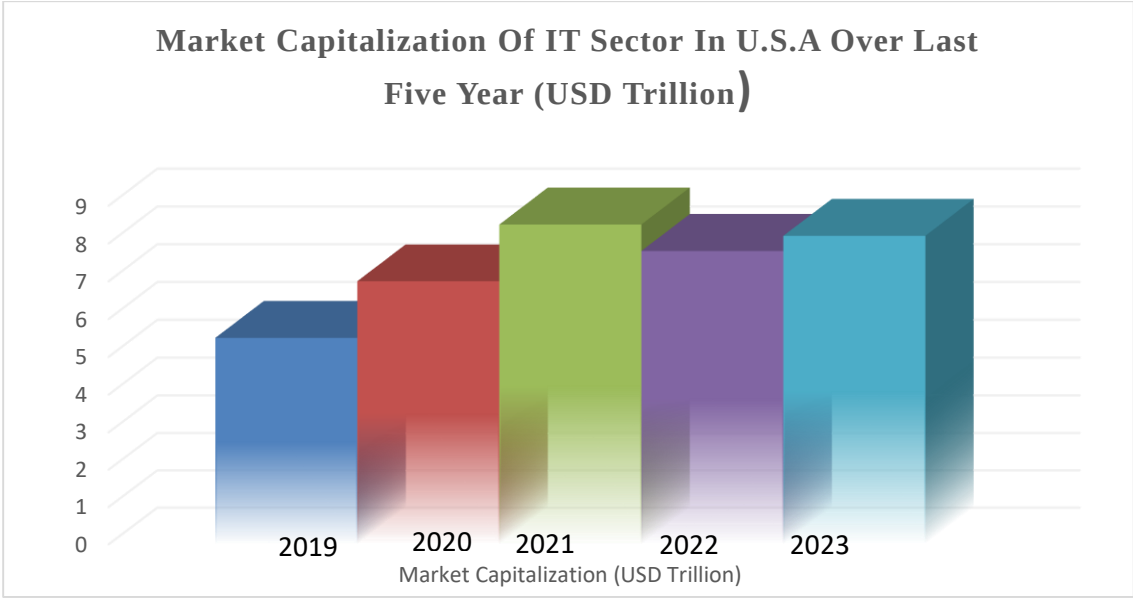


Figure 2 Market Capitalization of IT sector in U.S.A over last five year (USD Trillion)

The IT sector's market capitalization grew from \$5.5 trillion in 2019 to \$8.2 trillion in 2023, with fluctuations driven by digital transformation, pandemic impacts, economic uncertainties, and innovation.

3) **Financial Performance and Ratio Analysis of Apple Inc. (AAPL), Microsoft Corp. (MSFT), NVIDIA Corp. (NVDA), and Alphabet Inc. (GOOGL) over the past five years**

- **Market capitalization for AAPL, NVDA, MSFT, and GOOGL**

Table 1 Market capitalization for AAPL, NVDA, MSFT, and GOOGL

Year	Apple Inc. (AAPL) (USD Trillion)	Nvidia Corporation (NVDA) (USD Billion)	Microsoft Corporation (MSFT) (USD Trillion)	Alphabet Inc. (GOOGL) (USD Trillion)
2019	1.5	0.1	1	0.8
2020	1.9	0.3	1.6	1.5
2021	2.4	0.5	2.2	1.8
2022	2	0.6	1.9	1.5
2023	2.3	0.7	2.1	1.6

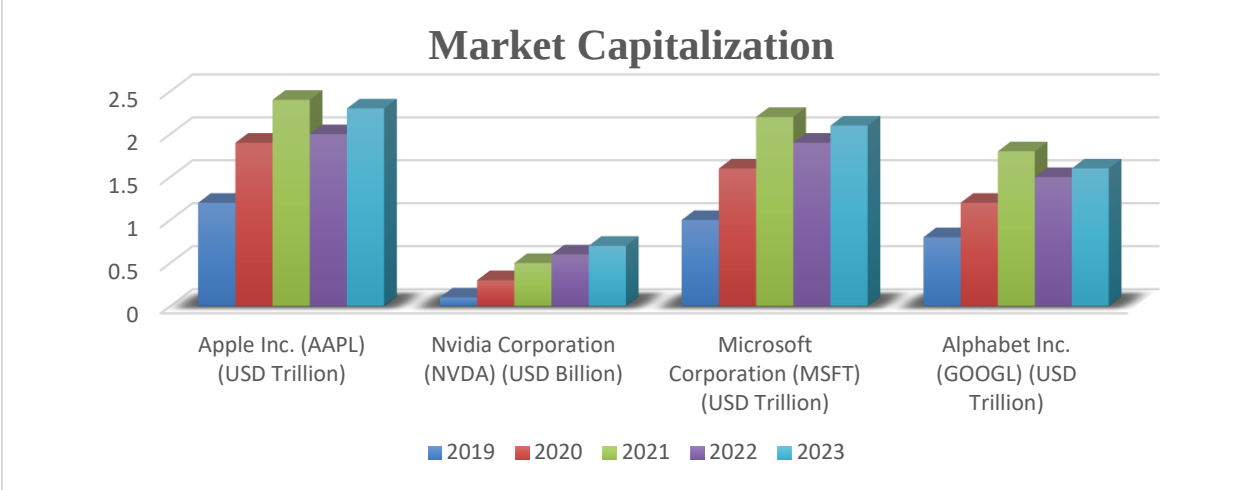


Figure 3 Market Capitalization for AAPL, NVDA, MSFT, and GOOGL

From 2019 to 2023, Apple, Nvidia, Microsoft, and Alphabet experienced significant fluctuations in market capitalization, driven by trends like remote work, AI advancements, and digital services, with Apple and Microsoft peaking at \$2.4 trillion and \$2.2 trillion, respectively, Nvidia surging from \$100 billion to \$700 billion, and Alphabet fluctuating between \$800 billion and \$1.6 trillion.

• Revenue Over the Last Five Years

Table 2 Revenue Over the Last Five Years for AAPL, NVDA, MSFT, and GOOGL

Year	AAPL Revenue (in billions USD)	MSFT Revenue (in billions USD)	NVDA Revenue (in billions USD)	GOOGL Revenue (in billions USD)
2019	260.17	125.84	10.92	161.86
2020	274.52	143.02	16.68	182.53
2021	365.82	168.09	26.91	257.64
2022	394.33	198.27	26.91	282.83
2023	411.82	211.91	27.09	295.76

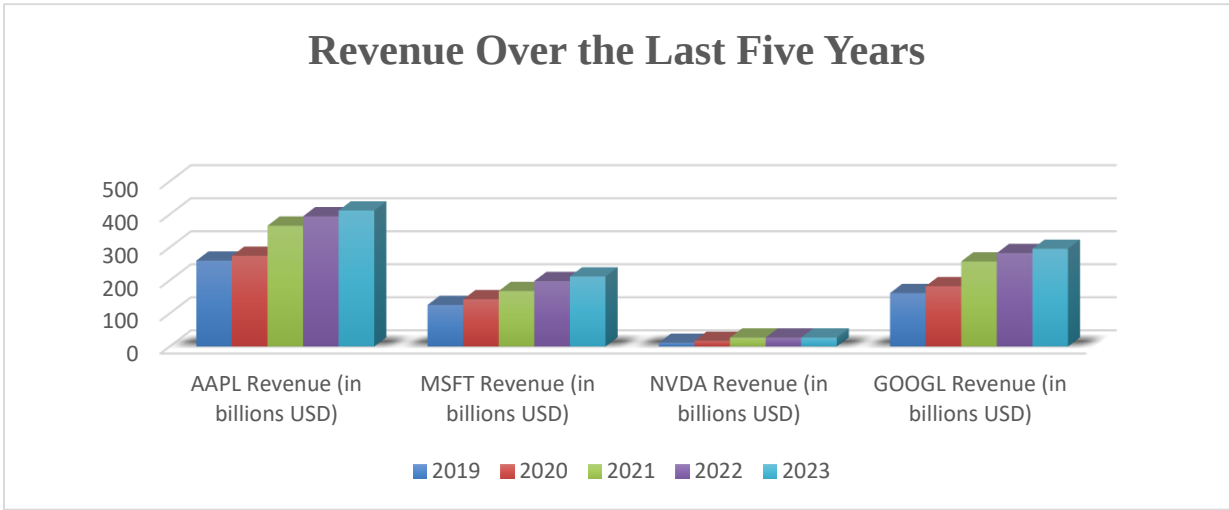


Figure 4 Revenue Over the Last Five Years for AAPL, NVDA, MSFT, and GOOGL

From 2019 to 2023, Apple, Microsoft, Nvidia, and Alphabet experienced significant revenue growth, with Apple reaching \$411.82 billion, Microsoft at \$211.91 billion, Nvidia at \$27.09 billion, and Alphabet at \$295.76 billion, driven by strong demand for their products and services, including cloud computing, gaming, AI, digital advertising, and product innovations.

- **Net Income over the last five years.**

Table 3 Net Income Over the Last Five Years for AAPL, NVDA, MSFT, and GOOGL

Year	Apple Inc. (AAPL) (USD Billion)	Nvidia Corporation (NVDA) (USD Billion)	Microsoft Corporation (MSFT) (USD Billion)	Alphabet Inc. (GOOGL) (USD Billion)
2019	55.3	4.1	39.2	34.3
2020	57.4	3	44.3	40.3
2021	86.9	9.8	61.5	76
2022	99.8	4.3	72.7	59.9
2023	104	5.9	77.4	69.5

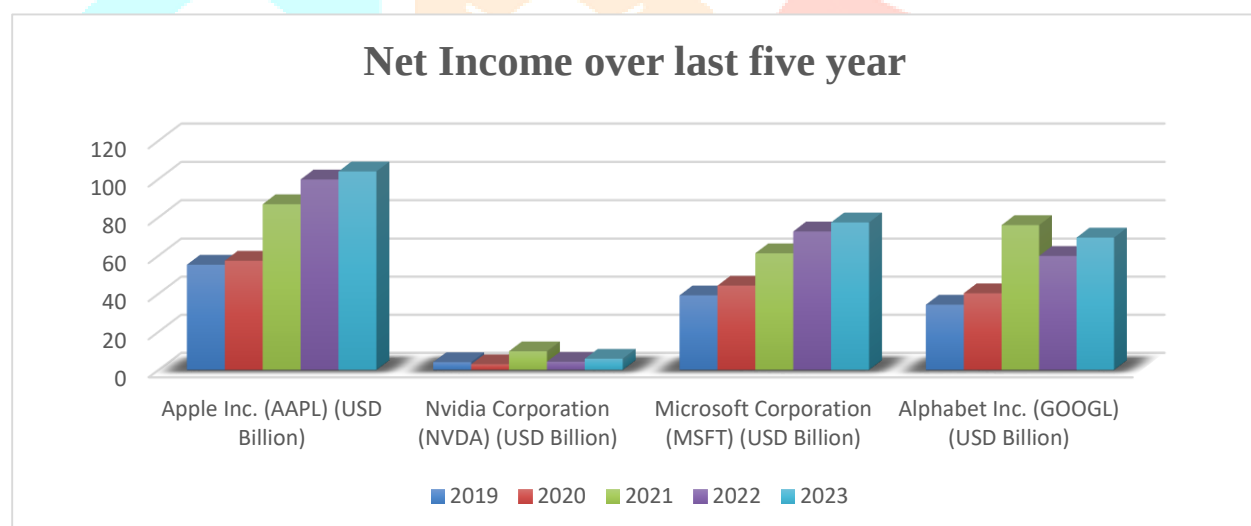


Figure 5 Net Income Over the Last Five Years for AAPL, NVDA, MSFT, and GOOGL

From 2019 to 2023, Apple, Nvidia, Microsoft, and Alphabet saw varying net income trends, with Apple leading at \$104 billion, followed by Microsoft at \$77.4 billion, Alphabet at \$69.5 billion, and Nvidia at \$5.9 billion. These figures reflect strong profitability driven by factors such as product sales, cloud services, AI, and digital advertising, with some fluctuations due to market conditions and strategic investments.

4) financial ratios for Apple Inc. (AAPL), Nvidia Corporation (NVDA), Microsoft Corporation (MSFT), and Alphabet Inc. (GOOGL) over the past five years.

Table 4 financial ratios Over the Last Five Years for AAPL, NVDA, MSFT, and GOOGL

Year	Company	P/E Ratio	Earnings Per Share (EPS) (USD)	Return on Equity (ROE) (%)	Debt-to-Equity Ratio	Current Ratio
2019	AAPL	21.5	11.89	55.6	1.5	1.5
2020	AAPL	34	14.16	73.7	1.5	1.5
2021	AAPL	28.5	16.52	82.4	1	1.5
2022	AAPL	26	18.71	81.5	1.5	1.5
2023	AAPL	28	20.25	82	1	1.5
2019	GOOGL	29	49.16	15.6	0.2	3
2020	GOOGL	34	58.61	17.4	0.2	3.1
2021	GOOGL	29.6	74.43	21.5	0.1	3
2022	GOOGL	21.8	85.12	17.9	0.2	3.2
2023	GOOGL	22.5	90.55	18.5	0.2	3.3
2019	MSFT	30	5.76	36.8	0.6	2.5
2020	MSFT	35.5	6.98	40.2	0.6	2.8
2021	MSFT	35	9.65	47.7	0.5	2.9
2022	MSFT	31	10.47	48.4	0.5	2.7
2023	MSFT	33	11.96	50	0.5	2.8
2019	NVDA	37.8	6.63	47.7	0.4	5.4
2020	NVDA	80.2	8.53	51.5	0.3	5.7
2021	NVDA	90.3	12	63	0.5	5.6
2022	NVDA	55.4	17.54	33.8	0.6	5.3
2023	NVDA	55	21.83	35	0.7	5.4

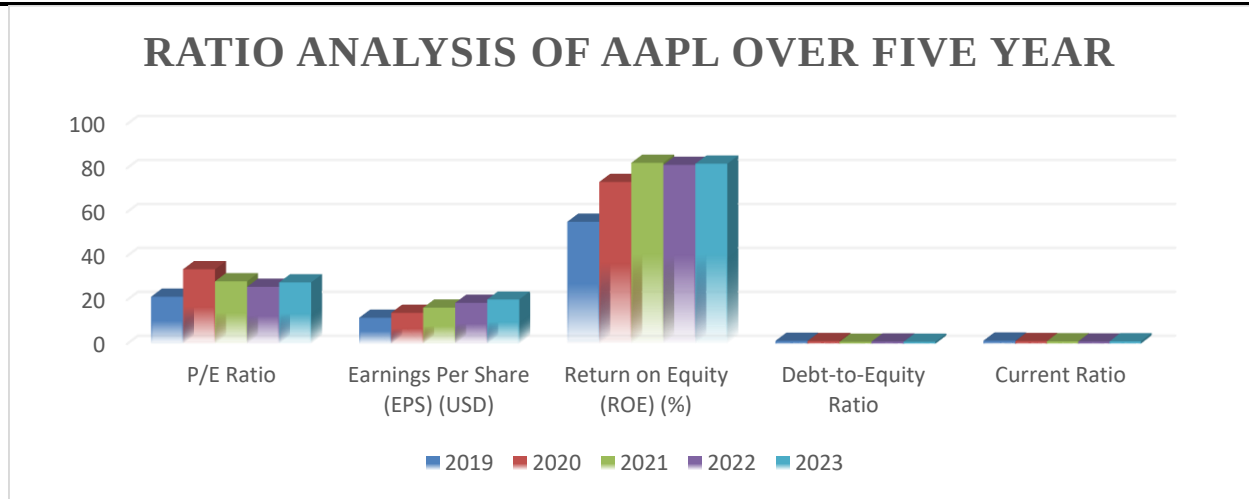


Figure 6 Ratio analysis of AAPL over five years

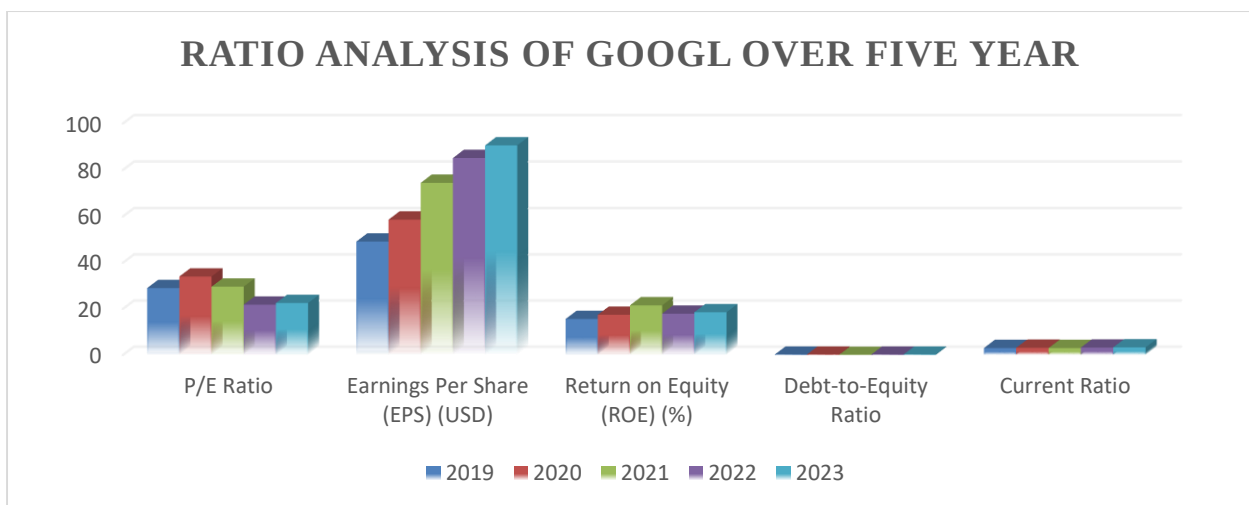


Figure 7 Ratio analysis of GOOGL over five years

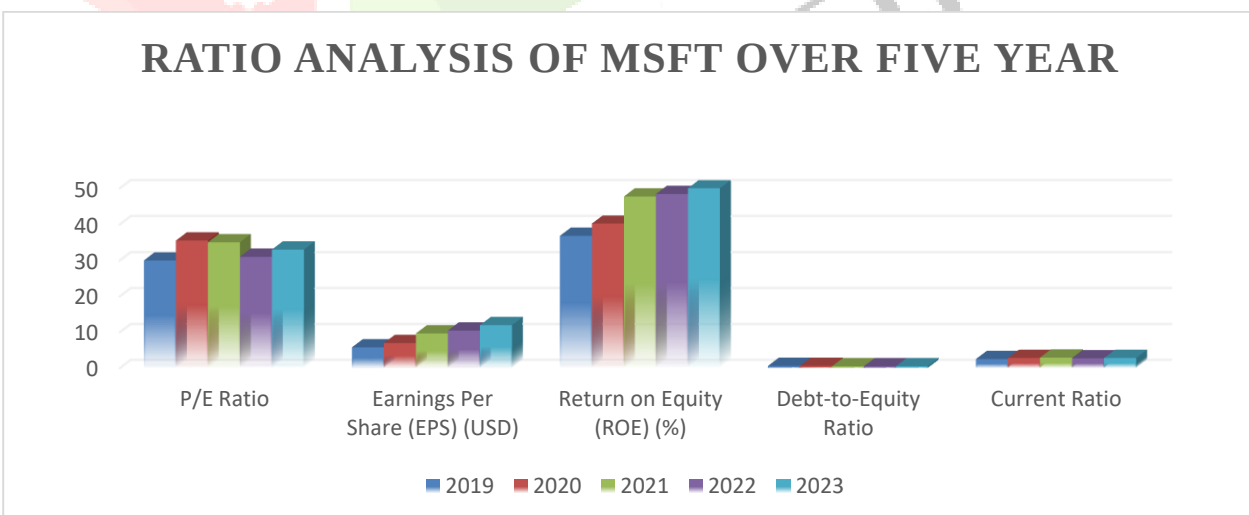


Figure 8 Ratio analysis of MSFT over five years

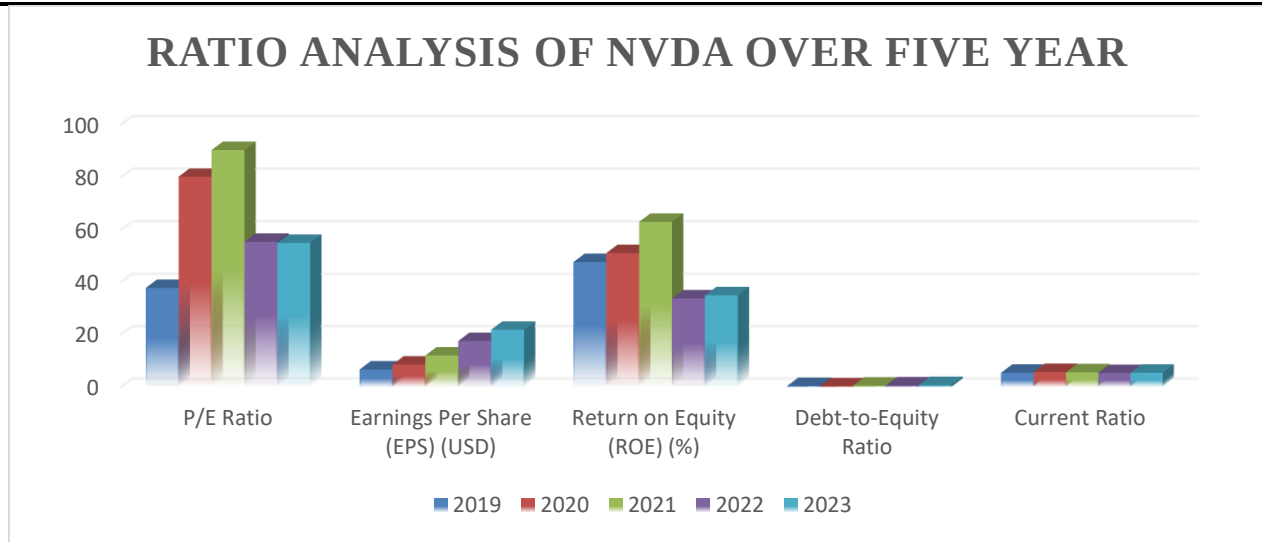


Figure 9 Ratio analysis of NVDA over five years

- **Apple Inc. (AAPL):** Stable P/E, strong EPS and ROE growth, decreasing debt-to-equity, solid current ratio indicating good liquidity.
- **Nvidia Corporation (NVDA):** High P/E, significant EPS growth, fluctuating ROE, low debt-to-equity, high current ratio showing strong liquidity.
- **Microsoft Corporation (MSFT):** Stable P/E, steady EPS and ROE growth, balanced debt-to-equity, solid current ratio indicating healthy liquidity.
- **Alphabet Inc. (GOOGL):** Moderate P/E, strong EPS growth, lower ROE, very low debt-to-equity, strong current ratio reflecting good short-term financial health.

5) Technical Analysis of Key Players in the United States of America (U.S.A): Apple, Microsoft, NVIDIA, and Google

- **Apple Inc. (AAPL)**



Figure 10 Current Trend Analysis of APPLE

Price Movement: Look for the recent price action, according to candlestick chart APPLE breaks the previous resistance and making new high and now taking retest of ne support so currently APPLE is in Bullish trend.

- **Microsoft Corporation (MSFT)**



Figure 11 Current Trend Analysis of MICROSOFT

Price Movement: Look for the recent price action, according to candlestick chart of MICROSOFT breaks the current support and trading below support level but the current trend is bullish.

- **NVIDIA Corporation (NVDA)**



Figure 12 Current Trend Analysis of NVIDIA

Price Movement: The recent volatility and price action of NVDA shows bullish trend but now trading below support level taking upward movement from the support.

• Google LLC (Alphabet Inc.)



Figure 13 Current Trend Analysis of GOOGL

Price Movement: According to current price action GOOGLE traded below support level and look like downtrend but the long-term trend of GOOGLE is uptrend.

VII. Findings And Suggestions

- **Fundamental Analysis:**
- **Revenue & Market Cap Trends:** Apple, Microsoft, Nvidia, and Alphabet have shown consistent revenue growth, with Nvidia seeing the highest CAGR (25.5%) and Alphabet at 15.8%. Market caps grew significantly, with Nvidia expanding by 38% and Apple by 16.3%.
- **Financial Ratios:** Apple's P/E ratio grew steadily, while Nvidia's saw significant volatility, peaking in 2021. EPS and ROE increased across all companies, with Apple and Nvidia seeing the highest growth in profitability. Debt-to-equity ratios are low for most, with Alphabet showing minimal debt.
- **Growth Drivers & Challenges:** Digital transformation, remote work, and innovation drive growth. Challenges include regulatory scrutiny, competition, and supply chain issues.
- **Technical Analysis:**
- Apple shows potential consolidation patterns, while Microsoft and Nvidia exhibit strong bullish trends. Google displays possible bullish reversals.
- **Comparative Insights:**
- Nvidia and Microsoft have superior profitability. Nvidia has the strongest liquidity, and all companies show strengths in innovation and profitability.
- **Suggestions:**
- **For Investors:** Nvidia offers high growth, but also high risk. Microsoft is stable, and Alphabet may provide long-term value.
- **For Companies:** Invest in R&D, manage regulatory risks, and diversify supply chains.
- **For Analysts:** Monitor economic indicators, long-term growth trends, and competitive dynamics in the IT sector.

VIII. CONCLUSION

The study examines the fundamental strengths and weaknesses of four major IT companies: Apple, Microsoft, NVIDIA, and Google. Apple's strengths include strong brand equity, high-margin product lines, and substantial cash reserves. Microsoft's financial health and strategic acquisitions, such as LinkedIn and GitHub, enhance its market position. NVIDIA's dominance in graphics processing units and growth in AI and data centres highlight its fundamental strength. Google's extensive advertising revenue, dominant search engine market share, and investments in AI and cloud services underpin its fundamental strength.

Technical analysis insights suggest a generally bullish trend for Apple, a consistent upward trend for Microsoft, and a stable upward trend for Google. The IT sector remains dynamic, driven by rapid technological advancements and evolving consumer preferences. Companies like Apple, Microsoft, NVIDIA, and Google are well-positioned to capitalize on trends such as AI, cloud computing, and digital transformation. However, competitive pressures and regulatory challenges are significant factors influencing the market landscape.

The study's limitations include focusing on key players, geographical focus, methodological limitations, data constraints, and market volatility. Future research could expand to include a wider range of IT companies, incorporate advanced analytical techniques, investigate the impact of regulatory changes, and analyse consumer behaviour.

Learning outcomes include strategic thinking, investment analysis, personal grooming, communication/presentation skills, professional ethics, teamwork, and domain-related learning. Challenges faced include data complexity and keeping up with market changes.

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