

3-Statement Model and DCF Valuation of a Company NVIDIA

Mrs.R. Kalaivani¹, Mr.K.Arun Krishna²

Assistant Professor, Department of Commerce, Sri Krishna Adithya College of Arts and Science, Coimbatore, India¹

Student, II M.Com, Sri Krishna Adithya College of Arts and Science, Coimbatore, India²

Abstract: This study focuses on the financial valuation of NVIDIA Corporation using advanced financial modelling and widely accepted valuation techniques. In an increasingly complex and innovation-driven financial environment, traditional backward-looking analysis is insufficient to capture a firm's true economic value. Therefore, this research adopts a forward-looking approach by integrating an Integrated Three-Statement Financial Model, Discounted Cash Flow (DCF) analysis, and Trading Comparables (Comps) analysis to assess the company's intrinsic and relative valuation. The study begins with the construction of a comprehensive three-statement model, linking the income statement, balance sheet, and cash flow statement to forecast NVIDIA's financial performance over a defined period. Based on these projections, free cash flows are estimated and discounted using the Weighted Average Cost of Capital (WACC) to determine the company's intrinsic value through the DCF method. To enhance the robustness of the valuation, Trading Comparables analysis is employed to benchmark NVIDIA against peer companies in the semiconductor and technology sector.

Keywords: Financial Modelling, Corporate Valuation, Discounted Cash Flow (DCF), Three-Statement Model, Free Cash Flow (FCF), Weighted Average Cost of Capital (WACC), Artificial Intelligence (AI), Financial Forecasting

INTRODUCTION

In the modern financial landscape, accurate valuation of companies has become an essential requirement for investors, analysts, corporate managers, and strategic decision-makers. With rapid technological advancement and volatile global markets, understanding a company's financial position and future potential is crucial. Financial modelling and valuation techniques—particularly the Integrated 3-Statement Model, Discounted Cash Flow (DCF) Method, and Trading Comparables (Comps) Analysis—serve as powerful analytical tools for assessing a firm's intrinsic value and market competitiveness.

The technology sector, especially the semiconductor and artificial intelligence (AI) industry, has witnessed exponential growth in recent years. Among the global leaders in this space, NVIDIA Corporation stands out as a pioneer in graphics processing units (GPUs), accelerated computing, and AI innovation. With NVIDIA's market capitalization crossing historic highs, the company has become a benchmark for evaluating financial performance in the high-tech industry.

STATEMENT OF PROBLEM

Consumer purchasing behaviour has changed dramatically as a result of the growing usage of YouTube and Instagram as marketing channels, especially among young people. Even while companies spend a lot of money on influencer marketing, social media campaigns, and video-based advertising, it's still unclear how well these tactics affect consumers' intentions to make purchases. The abundance of content that young consumers are exposed to frequently results in knowledge overload, misunderstanding, and differing degrees of trust. Additionally, not all marketing initiatives result in actual purchases because various people are influenced by things like viral trends, electronic word-of-mouth, influencer credibility, and reliability. Additionally, it is unclear how much exposure to YouTube and Instagram marketing influences young people's intentions to make purchases.

OBJECTIVES

- To develop an integrated three-statement financial model for NVIDIA Corporation by linking the income statement, balance sheet, and cash flow statement to forecast future financial performance.
- To estimate the intrinsic value of the company using the Discounted Cash Flow (DCF) method based on projected free cash flows and appropriate discount rates.
- To conduct Trading Comparables (Comps) analysis by benchmarking NVIDIA against similar companies in the semiconductor and technology industry.



I. SCOPE OF STUDY

The study focuses on evaluating the financial performance and intrinsic value of NVIDIA Corporation using established financial modelling and valuation techniques. It is limited to the analysis of publicly available financial data, including annual reports, audited financial statements, and other official disclosures. This ensures transparency, reliability, and consistency in the analysis.

The scope includes the development of an integrated three-statement financial model to forecast the company's future financial performance. Based on these projections, the study applies the Discounted Cash Flow (DCF) method to estimate intrinsic value and uses Trading Comparables analysis to assess relative valuation by comparing NVIDIA with similar companies in the semiconductor and technology industry.

The analysis covers both a historical period and a forecast period, allowing for a comprehensive understanding of past performance and future growth potential. Key financial aspects such as revenue growth, profitability, cash flows, and capital structure are examined in detail.

II. RESEARCH METHODOLOGY

This study adopts a quantitative and analytical research methodology to evaluate the financial performance and intrinsic value of NVIDIA Corporation. The approach is objective and data-driven, relying on numerical financial data and established valuation techniques commonly used in corporate finance and equity research.

The research is based on secondary data sources, including published annual reports, audited financial statements, stock exchange filings, and financial databases. These sources provide reliable and comprehensive information required for analysis and forecasting.

A key component of the methodology is the development of an integrated three-statement financial model, which links the income statement, balance sheet, and cash flow statement. This model is used to project future financial performance based on historical trends and key assumptions such as revenue growth, operating margins, capital expenditure, and working capital requirements.

For valuation, the study primarily uses the Discounted Cash Flow (DCF) method, which estimates intrinsic value by forecasting future free cash flows and discounting them to present value using the Weighted Average Cost of Capital (WACC). In addition, Trading Comparables Analysis is applied to provide a relative valuation perspective by comparing the company's financial metrics with those of similar firms in the industry.

III. LIMITATIONS

- **Dependence on Assumptions:**
The valuation results are highly sensitive to key assumptions such as revenue growth, discount rate (WACC), and terminal growth rate. Any variation in these assumptions can significantly impact the final valuation.
- **Reliance on Secondary Data:**
The study is based entirely on publicly available data, which may not capture all internal or real-time information about the company.

IV. REVIEW OF LITERATURE

Aswath Damodaran (2012) defines firm valuation as the process of estimating the intrinsic value of a company based on its expected future cash flows. He emphasizes that valuation is forward-looking and depends heavily on assumptions related to growth, risk, and future performance.

John Burr Williams (1938) introduced the concept that the value of a firm is equal to the present value of its expected future dividends, forming the foundation of modern valuation theory.

Myron Gordon (1962) developed the Gordon Growth Model, which assumes constant dividend growth and provides a simplified approach for valuing stable firms.

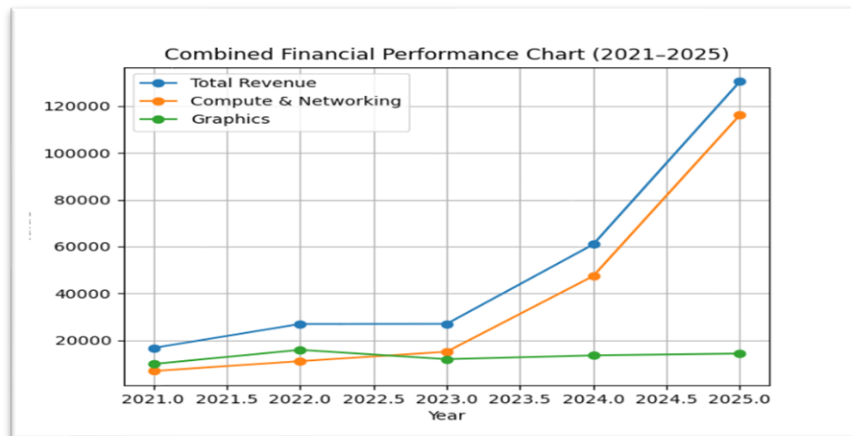
V. OVERVIEW OF THE STUDY

This study focuses on evaluating the financial performance and intrinsic value of NVIDIA Corporation using advanced financial modelling and valuation techniques. In today's rapidly evolving and technology-driven business environment, traditional financial analysis methods are often insufficient to capture the true economic value of high-growth companies. Therefore, this research adopts a comprehensive and forward-looking approach to valuation.

The study begins with an analysis of the company’s historical financial performance, examining key trends in revenue growth, profitability, liquidity, and efficiency. Based on this analysis, an integrated three-statement financial model is developed to forecast future performance by linking the income statement, balance sheet, and cash flow statement. These projections serve as the foundation for estimating free cash flows.

To determine the intrinsic value of the company, the Discounted Cash Flow (DCF) method is applied, which involves discounting projected future cash flows using an appropriate discount rate. In addition, Trading Comparables Analysis is conducted to provide a relative valuation perspective by comparing the company with its industry peers. This combined approach ensures a balanced evaluation by incorporating both fundamental and market-based valuation methods

VI. ANALYSIS AND INTERPRETATION



Year	Total Revenue	Computer&Networking	Graphics
2021	16675	6841	9834
2022	26914	11046	15868
2023	26974	15068	11906
2024	60922	47405	13517
2025	130497	116193	14304

year	Total Revenue Growth	Compute & Networking Growth	Graphics Growth
2025	114.24%	145.11%	5.82%
2024	125.83%	214.61%	13.53%
2023	0.22%	36.41%	-24.97%
2022	61.47%	61.47%	61.36%
2021	—	—	—

INTERPRETATION:

The Year-on-Year (YoY) growth analysis reveals significant insights into the performance trends of NVIDIA Corporation over the study period.

The total revenue growth shows a moderate increase in the early years, followed by an exceptional surge in 2024 and 2025. This sharp rise indicates a period of accelerated expansion, reflecting strong demand and successful strategic positioning in high-growth markets.

The Compute and Networking segment demonstrates the most remarkable performance, with extremely high growth rates, particularly in 2024 and 2025. This indicates that the company’s expansion is primarily driven by its focus on artificial intelligence, data centers, and advanced computing technologies. The consistent and exponential growth in this segment highlights it as the key driver of overall revenue.

Decision

Based on the comprehensive financial analysis and valuation of NVIDIA Corporation, a well-informed investment decision can be made.

The company demonstrates strong financial performance, characterized by rapid revenue growth, high profitability, efficient asset utilization, and robust cash flow generation. The significant expansion in the Compute and Networking segment indicates a solid growth foundation driven by artificial intelligence and data center demand.

CONCLUSION

This study evaluated the financial performance and intrinsic value of NVIDIA Corporation using advanced financial modelling and valuation techniques. By applying an integrated three-statement financial model, Discounted Cash Flow (DCF) analysis, and Trading Comparables Analysis, the research provides a comprehensive and forward-looking assessment of the company's value.

VII. FINDINGS

- The analysis of NVIDIA Corporation reveals strong and consistent revenue growth over the study period, with a significant surge in recent years.
- The Compute and Networking segment has emerged as the primary growth driver, contributing the majority of total revenue and showing exceptional expansion compared to the Graphics segment.
- The company demonstrates high and improving profitability, with increasing gross margin, operating margin, and net profit margin, indicating strong cost efficiency and pricing power.
- Return ratios such as Return on Equity (ROE) and Return on Assets (ROA) have improved significantly, reflecting efficient utilization of capital and assets.
- The company maintains a strong liquidity position, with high current and quick ratios, ensuring the ability to meet short-term obligations.
- A declining debt-to-equity ratio and high interest coverage ratio indicate low financial risk and strong solvency.
- The cash flow analysis shows a steady increase in operating cash flows and free cash flow, confirming that earnings are supported by actual cash generation.
- The growth analysis indicates exceptional expansion, particularly in recent years, driven by increasing demand in AI, data centers, and advanced computing.

VIII. SUGGESTIONS

- NVIDIA Corporation should continue to focus on the Compute and Networking segment, as it is the primary driver of revenue growth and long-term value creation.
- The company should strengthen its investment in research and development (R&D) to maintain its competitive advantage in artificial intelligence, data centers, and advanced computing technologies.
- Although the Graphics segment shows stability, efforts should be made to revitalize and innovate this segment to ensure balanced growth across all business divisions.
- The company should maintain its strong financial discipline, particularly in managing costs, capital expenditure, and working capital, to sustain profitability and efficiency.
- Given the sensitivity of valuation to assumptions, management and investors should regularly review key financial assumptions such as growth rates and cost of capital.
- Investors are advised to consider long-term investment horizons, as the company demonstrates strong growth potential despite short-term market fluctuations.
- The company should diversify its revenue streams further to reduce dependency on a single segment and mitigate business risks.
- Continuous monitoring of market trends, technological advancements, and competitive dynamics is essential to adapt strategies effectively

IX. CONCLUSION

This project provides a comprehensive evaluation of NVIDIA Corporation by applying advanced financial modelling and valuation techniques. Through the integration of a three-statement financial model, Discounted Cash Flow (DCF) analysis, and Trading Comparables approach, the study offers a detailed and forward-looking assessment of the company's financial strength and intrinsic value.



The analysis clearly indicates that the company has achieved exceptional growth in recent years, driven primarily by its Compute and Networking segment. Strong profitability, efficient resource utilization, and robust cash flow generation further reinforce its position as a leading player in the technology sector. The shift towards artificial intelligence and data-driven computing has significantly enhanced the company's growth prospects.

At the same time, the valuation results highlight that estimating intrinsic value involves a high degree of sensitivity to key assumptions such as growth rates and discount rates. Therefore, while the company demonstrates strong fundamentals and long-term potential, investment decisions should be made with careful consideration of market conditions and valuation uncertainties.

Overall, the project concludes that combining financial modelling, intrinsic valuation, and relative valuation techniques provides a reliable framework for analyzing high-growth companies. The study supports a positive long-term outlook, emphasizing that NVIDIA remains a strong contender for investment, subject to appropriate valuation levels and risk assessment.

REFERENCES

- [1]. Aswath Damodaran (2012), *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset*, 3rd ed., John Wiley & Sons.
- [2]. Tim Koller, Marc Goedhart and David Wessels (2015), *Valuation: Measuring and Managing the Value of Companies*, 6th ed., McKinsey & Company.
- [3]. Stephen Penman (2013), *Financial Statement Analysis and Security Valuation*, McGraw-Hill Education.
- [4]. Joshua Rosenbaum and Joshua Pearl (2009), *Investment Banking: Valuation, Leveraged Buyouts, and Mergers & Acquisitions*, John Wiley & Sons.
- [5]. John Burr Williams (1938), *The Theory of Investment Value*, Harvard University Press.
- [6]. Myron Gordon (1962), "The Investment, Financing, and Valuation of the Corporation", Irwin.
- [7]. Franco Modigliani and Merton Miller (1958), "The Cost of Capital, Corporation Finance and the Theory of Investment", *American Economic Review*, Vol. 48, No. 3.
- [8]. James Ohlson (1995), "Earnings, Book Values, and Dividends in Equity Valuation", *Contemporary Accounting Research*.