

Microsoft's Acquisition of Nuance for \$19.7bn

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Source: Sharecast

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DEAL INTRODUCTION

DETAILS ABOUT THE DEAL

- Microsoft Corporation (MSFT) finalised its \$19.7 billion acquisition of artificial intelligence software developer and voice technology company Nuance Communication in March 2022, a year after its initial announcement in April 2021.
- Microsoft has acquired Nuance for \$56.00 per share, implying a 23% premium to the closing price of Nuance in an all-cash transaction valued at \$19.7 billion, inclusive of Nuance's net debt.
- This acquisition marks the second-largest deal in Microsoft's history, and one of the largest med-tech deals of 2021
- Mark Benjamin will remain CEO of Nuance and report to Microsoft Cloud + AI group Executive Vice President Scott Guthrie.



Source: The Hustle



REASONS FOR M&A DEAL

- The acquisition will allow Microsoft to advance their industry specific cloud technology, ultimately increasing Microsoft's work in both AI and healthcare.
- This deal will result in new solutions that combine voice, artificial intelligence and cloud technologies for industries including healthcare, retail, telecommunications and financial services.
- The acquisition builds on a partnership that was announced between the two companies in 2019 when they were working together to offer healthcare collaboration tools. Its earlier partnership was focused on improving interactions with patients using ambient clinical intelligence (ACI), a technology that uses sensors and conversational AI to automate administrative tasks and documentation. Last year, the two companies had announced the integration of Nuance's ACI technology with Microsoft's collaboration solution Teams to bring those benefits to remote and virtual consultations.
- Beyond healthcare, Nuance provides AI expertise and customer engagement solutions across Interactive Voice Response (IVR), virtual assistants, and digital and biometric solutions to companies around the world across all industries.



Source: MarTech Series



INDUSTRY OVERVIEW

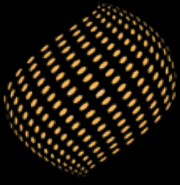
WHAT IS THE ARTIFICIAL INTELLIGENCE INDUSTRY?

Artificial Intelligence (AI) is a rapidly growing industry that encompasses a wide range of technologies and applications, from self-driving cars and virtual personal assistants to advanced healthcare solutions and predictive analytics. The AI industry is expected to continue its rapid growth in the coming years, with global investments in AI expected to reach \$300 billion by 2025. Several key drivers of the AI industry's growth include advances in machine learning algorithms and hardware, the growing availability of big data and cloud computing resources, and the increasing demand for automation and efficiency in many industries.

One of the main applications of AI is in the development of intelligent systems and machines that can perform tasks that would normally require human intelligence, such as recognizing images, playing games and data analysis. Additionally, the AI industry is also responsible for significant contributions towards the development of new technology, such as autonomous vehicles and intelligent robots. Overall, the AI industry is a rapidly growing and dynamic field transforming how we live, work, and interact with technology. With continued advances in machine learning and other AI technologies, the industry is poised to play an increasingly important role in shaping our future.



Source: SAP



HISTORICAL TRENDS

- **(1950s-1960s):** The foundation of the AI industry was laid in the 1950s and 1960s, with the development of the first computer programs designed to perform tasks that would normally require human intelligence, such as playing chess and solving mathematical problems.
- **(1970s-1980s):** Despite initial excitement and investment, the AI industry experienced a period of stagnation and declining interest, known as the "First AI Winter," due to limited progress and over-exaggerated expectations.
- **(1980s-1990s):** The AI industry experienced a resurgence in the 1980s and 1990s, driven by advances in computer hardware and the development of new machine learning algorithms, such as decision trees and artificial neural networks.
- **(2000s-2010s):** The growth of the AI industry was further accelerated by the rise of big data and cloud computing, which made it possible to process and analyse vast amounts of data in real-time.
- **(2010s-present):** The current era of AI is characterized by the rise of deep learning, a subset of machine learning that utilizes multi-layer artificial neural networks to make predictions and decisions.



Source: They Create Worlds



TRENDS FOR 2023 AND BEYOND

- **The Artificial Intelligence (AI) industry is expected to continue its rapid growth in 2023 and beyond, below are some of the notable trends:**
- **Increased Adoption of AI in Business:** AI is increasingly being adopted by organizations across a wide range of industries to automate processes, improve decision-making, and gain new insights into their operations.
- **Advancements in Natural Language Processing (NLP):** NLP is becoming more sophisticated, allowing AI systems to understand and respond to human speech and text more accurately and efficiently.
- **Development of Edge AI:** Edge AI, which involves the deployment of AI models on edge devices (not a centralized cloud computing facility), such as smartphones, is becoming increasingly popular to provide real-time, AI capabilities without relying on the cloud.
- **Growth of AI in Healthcare:** AI is being used to improve healthcare outcomes and efficiency, from predicting disease outbreaks and drug discovery to personalizing treatment plans and diagnosing illnesses.
- **Investment in AI Start-ups:** The AI industry is attracting increasing amounts of investment, with start-ups and established tech companies investing heavily in AI research and development.
- **The streamlining opportunities that AI can provide for corporations around the globe is promising. As AI capabilities progress, significant increase in the number of tasks delegated to AI to help streamline workflow and improve workplace productivity can be observed. ChatGPT has been a perfect example of this, as it can be utilized to help workers complete simple tasks in an extremely short space of time, allowing them to focus on the more complex tasks, resulting in a higher quality piece of work.**



ACQUIRER OVERVIEW



MICROSOFT

Microsoft is an American multinational technology corporation that develops computer software, consumer electronics, personal computers, and related services.

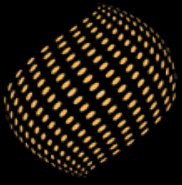
BUSINESS MODEL

Microsoft generates revenue through three core business segments: “Productivity and Business Processes”, “Intelligent Cloud”, and “Personal Computing”.

The “Productivity and Business Processes” segment primarily includes the flagship Microsoft Office software suite, LinkedIn and Dynamics (cloud-based solutions for business applications). It is estimated that around one-third of Microsoft’s revenue is generated through this segment.

The “Intelligent Cloud” segment comprises Microsoft’s public, private, and hybrid cloud services. These services include Microsoft SQL Server, Windows Server, and Azure. Alongside Microsoft’s cloud services, the company offers enterprise services such as Microsoft Consulting to help customers implement Microsoft products. “Intelligent Cloud” represents around another third of Microsoft’s revenue.

The “Personal Computing” segment comprises Microsoft’s products and services that improve users’ experience. One of the most prominent means of revenue from “Personal Computing” is the licensing of the Windows operating system. Aside from Windows, Microsoft also generates revenue from Xbox games and consoles, advertising via the Bing search engine and selling devices and PCs. “Personal Computing” approximately represents the final third of Microsoft’s revenue.



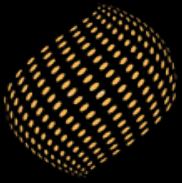
ESG PRACTICES

Microsoft actively participates in ESG practices to strive towards a more sustainable future. The company has reduced its carbon emissions by 15.6 million tons; by 2030, it aims to be carbon negative. By 2050, Microsoft aims to remove its historical emissions since its founding in 1975. Other commitments towards creating a sustainable future include: becoming water positive and eliminating its waste footprint by 2030, protecting more land than it uses by 2025 and closing the sustainability skills gap across the global workforce. Since January 2020, Microsoft has invested in acquiring 2.5 million tons of carbon removal from various sources and recycling it into its products. Additionally, Microsoft is harnessing the Azure Emissions Impact Dashboard to calculate Scope 3 emissions in its value chain.

Aside from Microsoft's manufacturing processes and R&D, its products and services are also aimed at tackling climate change. For example, the company offers the Microsoft Sustainability Manager, an extensible solution that unifies data to help companies monitor and manage their environmental impact. By promoting these solutions to business customers, Microsoft can disseminate its expertise on sustainability data collection and create a better future for society.



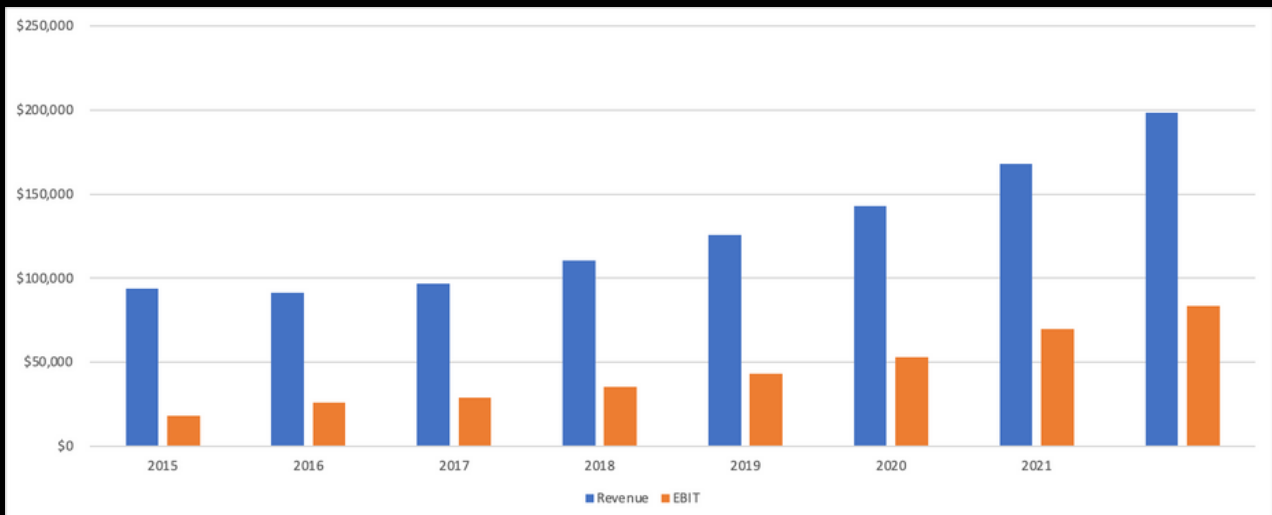
Source: Archello



KEY FINANCIALS

Revenue: For FY2022, Microsoft reported \$198 billion in revenue, almost a 17.9% increase from its revenue of \$168.09 billion in FY 2021.

EBITDA: EBITDA for FY 2022 was reported as \$97.843 billion, a 19.9% increase year-over-year.



■ Revenue

■ EBIT

In terms of **EBIT Margin** figures, Microsoft has been able to sustain an increase in their EBIT Margin, allowing the company to be more profitable every year for the past 7 years, which boosted investment confidence and enabled the company to contribute more to research and development

EBIT MARGIN FIGURES:

2015: 19.14%	2019: 34.1%
2016: 28.6%	2020: 37.0%
2017: 30.1%	2021: 41.6%
2018: 31.8%	2022: 42.1%



TARGET OVERVIEW



Ticker: NUAN

NUANCE

Nuance is an American multinational computer software technology corporation that develops speech recognition and artificial intelligence software.

BUSINESS MODEL

Nuance generates revenue through three core business segments: “Product and Licensing”, “Professional Services and Hosting”, and “Maintenance and Support”.

The “Product and Licensing” segment comprises Nuance’s artificial intelligence and speech recognition software, including ‘Healthcare AI’, ‘Omni-Channel Customer Engagement’, and ‘Dragon Consumer & Enterprise’. These solutions are mainly offered to organisations looking to address challenges and accelerate business results using industry-leading AI.

The “Professional Services and Hosting” segment consists of implementation, training, and consulting services for business customers, as well as the delivery of on-demand hosted services such as medical transcription, mobile operator service and infotainment.

The “Maintenance and Support” segment includes Nuance’s technical maintenance and support services. These services are mainly provided to its business customers who may require further guidance and assistance with the implementation of Nuance’s technology.



ESG PRACTICES

Nuance's purpose-driven way of operating is reflected by its ESG initiatives. On the governance front, Nuance has achieved robust shareholder outreach, 99% approval of the Nuance-Microsoft acquisition agreement and the standardisation of a process for analysing new global regulations to gain an in-depth understanding of potential implications and compliance needs. Aside from this, Nuance's financial customers have claimed that the company has saved them \$2 billion from losses due to fraud during the pandemic.

Nuance has also continued to lower its carbon footprint and climate-related risks by transitioning to the public cloud and ensuring that its data centres' IT infrastructure is upgraded. Additionally, Nuance recycled 3,404 electronic devices in 2020 that would have otherwise gone to landfills, preventing the issue of surplus e-waste. In 2020, the company managed to reduce greenhouse gas emissions from its offices and data centres by a total of 8,000 metric tons CO₂e.



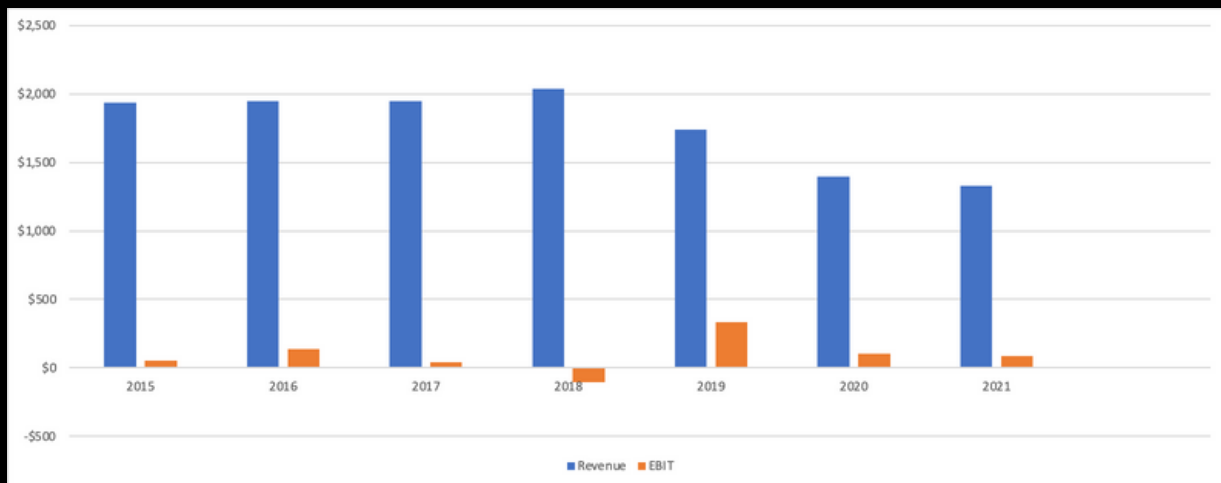
Source: UC Today



KEY FINANCIALS

Revenue: For FY 2021, Nuance reported \$1.33 billion in revenue, almost a 5% decrease from its revenue of \$1.4 billion in FY 2020.

EBITDA: EBITDA for FY 2022 was reported as \$1.36 billion, a 27.97% decrease year-over-year.



■ Revenue

■ EBIT

In terms of EBIT Margin figures, Nuance Communications has been able to achieve a constant EBIT Margin target of around 7% in the past. Although the EBIT Margin of the firm decreased to 5.3% in 2018, the decrease was quickly mitigated with an increase in EBIT Margin to 19.1% the year after.

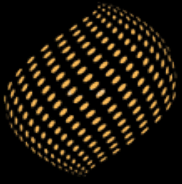
	2015	2016	2017	2018	2019	2020	2021
EBIT Margin	2.8%	7.1%	2.3%	-5.3%	19.1%	7.5%	6.7%



DEAL ANALYSIS

STRENGTHS AND OPPORTUNITIES

- The acquisition will allow Microsoft to advance their industry specific cloud technology, ultimately developing Microsoft's expertise in both AI and healthcare - namely, through accelerating the growth of Microsoft Cloud, and Microsoft's Healthcare Initiative. Nuance's world-class technology has earned them a market-leading reputation as more than 77% of U.S. hospitals and 550,000 healthcare clinicians worldwide, as well as 19 out of 20 of the world's top financial institutions, and 85% of the **Fortune 100** trust their solutions to deliver superior outcomes every day. The company has worked with Microsoft for the past two years on software that allows doctors record patient visits and integrate the information into electronic health records. Thus, the acquisition of such an impressive technology company could help achieve what Satya Nadella, Microsoft's CEO, seeks to- "AI is technology's most important priority, and healthcare is its most urgent application."
- Nuance is most known for developing Apple's voice assistant Siri. Microsoft's acquisition could allow them to leverage Nuance's conversational and AI capabilities to build a rival for Amazon's Alexa or Apple's Siri.
- This deal also allows Microsoft to maintain their bullish momentum. Microsoft's recent acquisitions of AI-powered services has provided a future competitive advantage, as their current business strategy is the continuous acquisition of competitive technologies and companies. This competitive advantage is particularly needed considering big tech and Microsoft's main competitors' recent push to enter the healthcare industry. With Amazon Pharmacy and Amazon Care, Apple's Watch that can measure useful metrics to assess the wearer's health condition, and Google's \$2.1 billion acquisition of Fitbit in early 2021, the acquisition's implications for healthcare will keep Microsoft strategically competitive.

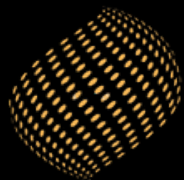


WEAKNESSES AND THREATS

The long time line for the deal, which was announced in early 2021 and was expected to be finalised by the end of the year, is a reflection of the regulatory hurdles that tech deals need to overcome. Antitrust regulatory concerns about this large acquisition monopolising the market, with subsequent investigations from the Competition and Markets Authority (CMA) and European Commission's antitrust body having postponed its completion. This hyper scrutiny and increased antitrust regulation on top of current fears of an impending global recession, can potentially interfere with the digestion and integration of the deal, and limit synergy optimisation.



Source : CITYA.M



VALUATION ANALYSIS

COMPARABLE COMPANIES ANALYSIS (CCA)

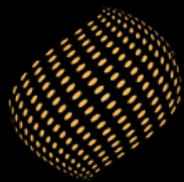
	Low	High
EBITDA Multiple	13.3x	62.8x
Implied Enterprise Value	2,489	11,721
Net Debt	768	768
Implied Equity Value	1,721	10,953
Equity Value per share	\$ 5.84	\$ 37.18
Premium / (Discount) %	89.57%	33.61%

[Please click on the table to access full model.](#)

Based on the comparable company analysis (CCA), Nuance Communication's **valuation multiples** appear to be higher than the mean and median of the companies chosen. In order to derive a more accurate valuation, the comparable companies are separated into 2 categories, including 'Healthcare Segment' and 'Enterprise AI Segment' to follow the business model of the target company.

As a result of the multiples, the low and high **EBITDA** multiples were chosen to be (13.3x) and (62.8x), giving the implied equity values per share of \$5.84, and \$37.18 respectively. This implies that Nuance Communications was overvalued at the time of the offer, and that Microsoft paid a significant **premium** of 33.61% based on high multiples.

However, it must also be noted that, although the companies chosen operate in the same industry and geography, their size did vary, which certainly impacted the CCA analysis conducted.



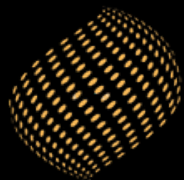
VALUATION ANALYSIS

DISCOUNTED CASH FLOW ANALYSIS (DCF)

Model Summary	
Enterprise Value	23,525
(+) Cash	209
(-) Debt	868
Equity Value	22,866
Diluted Shares Outstanding	295
Implied Share Price	\$ 77.62
Acquirer Offer per Share	\$ 56.00
% Intrinsic Premium/(Discount)	(27.9%)
Undisturbed Share Price (09/04/21)	\$ 45.53
% Acquisition Premium/(Discount)	23.0%

[Please click on the table to access full model.](#)

As shown above, our Discounted Cash flow analysis shows that Nuance Communications was purchased at a premium of 23% compared to its undisturbed share price. However, according to the model, the \$56 price paid per share by Microsoft reflects a 27.9% **discount** compared to the DCF-implied value of \$77.62 for the base case. The conservative and optimistic cases for the intrinsic valuation also gives a range between \$45.91 and \$147.68. Within our model, we have made several assumptions. We applied a **Weighted Average Cost of Capital (WACC)** of 9.7%, based on a risk free rate of 3.5% (10y Treasury Bond) and equity risk premium of 5.9%. We have also used a **Terminal Growth Rate (TGR)** of 2.5%.



VALUATION ANALYSIS

MERGER MODEL ANALYSIS

Post-merger EPS Calculation	
Revenues	169,450
Less: COGS	52,761
Gross Profit	116,689
Less: Operating Expense	46,691
EBIT	69,999
Interest Foregone on Cash	1,712
PBT	68,287
Less: Income Tax	12,974
Net Income	55,312
Outstanding Diluted Shares of Combined Company	7,903
EPS of Combined Company	6.999
EPS of Acquirer Standalone	8.05
Accretive/Dilutive	Dilutive
Accretive/Dilutive	(1.05)
Accretive/Dilutive (%)	-13%

Please click on the table to access full model.

Based on the merger model and the accretion/dilution analysis shown above, the deal between Microsoft and Nuance Communications would be **dilutive**, having the possibility of decreasing the EPS of the acquirer by 13%. This analysis suggests that Microsoft's interest in acquiring Nuance Communications is not justifiable, and has the potential to bring in financial limitations for the company.



CONCLUSION

IMPACT ON KEY COMPETITORS

Some of Microsoft's close competitors in the technology space include Apple, Google, Amazon, IBM and Oracle. All these firms directly compete with Microsoft across a variety of sectors including consumer electronics, online advertising, cloud computing, enterprise software and services market. As a result, Microsoft's acquisition of Nuance Communications could have a compounding effect on its competitors. Some key areas to look would be **Increased Competition in the Healthcare Market:**

Nuance is a leading provider of AI-powered healthcare solutions, and Microsoft's acquisition of the company is expected to further enhance Microsoft's position in the healthcare market. This could increase competition for other healthcare technology companies and providers.

Impact on Speech Recognition Technology: Nuance is also a leader in speech recognition technology, and Microsoft's acquisition of the company is expected to further strengthen Microsoft's position in this market. This could put pressure on other companies that provide speech recognition technology to improve their offerings or risk losing market share.

Challenging for Companies in the AI Space: The acquisition of Nuance demonstrates Microsoft's commitment to investing in and expanding its AI capabilities, which could pose a challenge for other companies in the AI space. Companies may need to invest in their own AI capabilities or risk falling behind in this rapidly growing market.

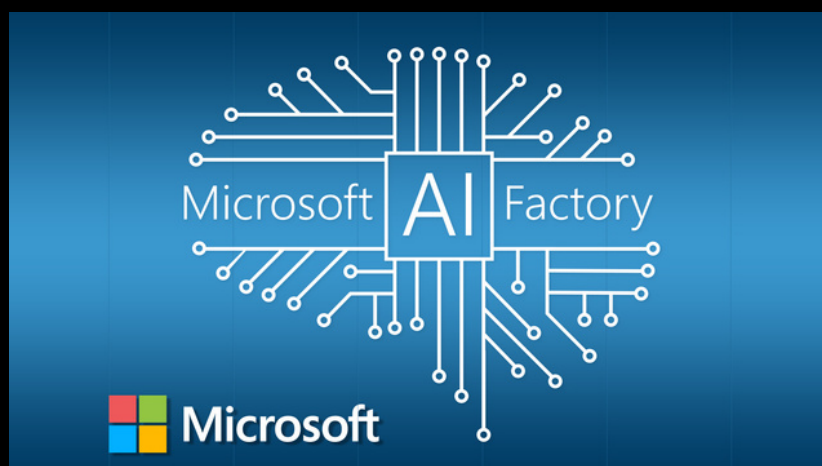


IMPACT ON INDUSTRY

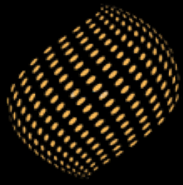
Microsoft's acquisition of Nuance Communications was only the beginning of its campaign to improve the company's AI capabilities and has recently demonstrated its dedication to artificial intelligence investment through its \$10 billion investment in OpenAI, the creator of ChatGPT.

During a CBS interview, the Microsoft CEO stated, "This marks the start of a new competition in the largest software category: search." The interview made it evident that Microsoft is targeting Google, leveraging various resources including those from Nuance Communications to enhance its AI capabilities. Microsoft's belief in the future of AI is reflected in its recent launch of an updated version of its search engine Bing, which now includes built-in ChatGPT features.

The company has seen great success in this area, but Google and Alphabet Inc. have yet to share in this success. On February 8th, Google unveiled its own ChatGPT competitor, Bard, during a live demonstration. However, the demonstration was marred by a "factually incorrect answer" provided by Bard, resulting in a nearly 8% stock drop and a \$110 billion reduction in market capitalization. This suggests that, at present, Microsoft is leading the AI race, but it is a crucial industry to monitor in the coming years.



Source : Flexsin



GLOSSARY

Dilutive: Dilutive in finance refers to the negative change in value after a transaction.

Discount: Decreased amount paid per share in comparison to the share price at the time of the M&A transaction, often presented as a percentage.

EBITDA: Earnings before Interest, Tax, Depreciation and Amortisation. A useful measure to compare companies profitability.

EBIT Margin: EBIT as a percentage of total revenue (sales).

Fortune 100: The top 100 companies in the United States based on total revenue, ranked by the Fortune magazine.

Premium: Increased amount paid per share in comparison to the share price at the time of the M&A transaction, often presented as a percentage.

Terminal Growth Rate: A growth rate that a company is expected to grow at forever based on the market and industry conditions.

Valuation Multiples: Financial tool providing one metric as a ratio of another; often used to compare similar companies.

WACC: Cost of capital used to represent a firm's after-tax costs from all resources.

