Sherwood
AUSTRALIA

VALUING AI COMPANIES

Core Principles and Methodologies

Contents

Introduction

This report aims to enhance the reader's understanding of how sophisticated investors approach the valuation of artificial intelligence (AI) technology companies. The valuation of AI firms presents unique challenges due to their high research and development intensity, reliance on intangible assets, and uncertain revenue trajectories. Our analysis indicates that investors apply different valuation methodologies depending on the firm's stage of development:

1. **Pre-revenue stage:**
   At this stage, financial data are limited, and valuations rely heavily on qualitative factors such as user engagement, proprietary algorithms, data assets, technical expertise, and prevailing market trends. Methods such as the Scorecard Valuation, Venture Capital, Berkus Method, Discounted Cash Flow (DCF), and comparable company analysis approaches are commonly applied to capture the speculative and growth-oriented nature of these firms.
2. **Revenue-generating stage:**
   As AI companies transition into the revenue-generating phase, investors increasingly employ market-based approaches, including revenue multiples to assess commercial traction and scalability.
3. **EBITDA-generating stage:**
   For AI firms with positive earnings, more conventional valuation techniques are typically adopted. Investors often use EBITDA multiple analysis as stable earnings provides a sound basis for estimating intrinsic value.

Unlocking the Value of AI Technology Companies

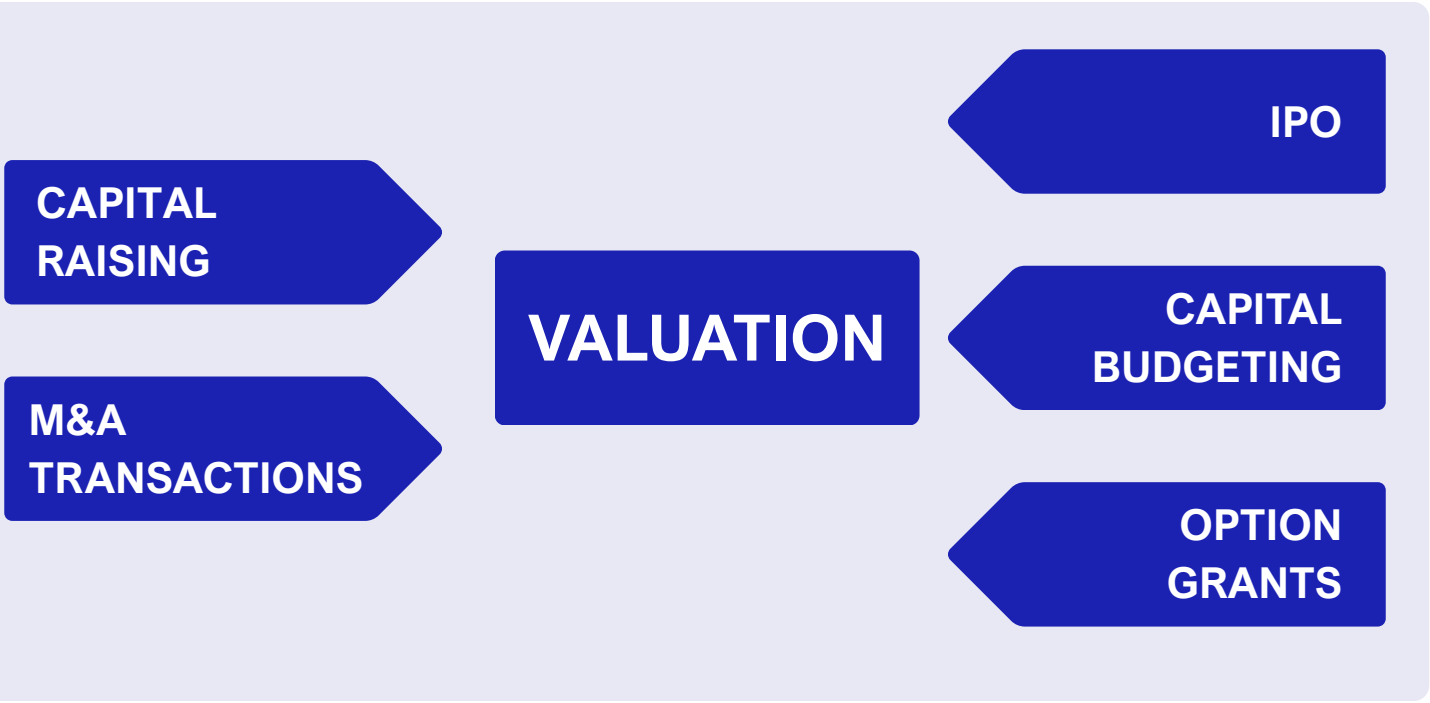
Why is accurate valuation critical for AI technology companies?

This report seeks to unpack how AI technology companies can be effectively valued and why this process is fundamental to their long-term success.

As artificial intelligence reshapes industries, executives often grapple with a central question: What makes valuation such a vital component of our organisation's strategy?

At its core, valuation acts as a disciplined approach to quantifying the economic potential of an AI business and its proprietary technologies. It underpins key corporate decisions by providing clarity around financial performance, growth prospects, and strategic positioning. A well-grounded valuation framework not only bridges the gap between investor and founder expectations but also fosters confidence in negotiations and informs forward-looking strategic choices.

The need for precise valuation emerges at pivotal stages of a company's lifecycle — including venture funding rounds, mergers and acquisitions (M&A), strategic partnerships, initial public offerings (IPOs), internal investment assessments, and the allocation of employee ownership incentives.



Valuation Methods

How exactly are AI technology companies valued?

For professionals not closely involved in the evolving tech landscape, AI firms often seem opaque and difficult to assess. A common question they face is how to value AI companies that frequently operate with limited historical revenue, intangible assets, rapidly evolving products, and substantial upfront research and development costs. Traditional valuation frameworks, which rely heavily on historical earnings or physical assets, may not fully capture the economic potential of these firms. Consequently, investors and analysts must consider both financial and non-financial factors—including proprietary algorithms, datasets, technical talent, scalability, and market adoption—to produce a rigorous and defensible valuation.

Understanding that the valuation methodology for AI technology companies varies according to the stage of the business provides a natural framework for examining the specific techniques applied at each phase, from pre-revenue to revenue-generating and EBITDA-generating companies. Therefore, the main methodologies used to value AI technology companies are summarised below.

Pre-Revenue Stage Valuation:

Venture Capital	The VC method values an AI company by estimating its future exit value, based on revenue or market multiples, and discounting it to the present using a target investor return. It is commonly applied to early-stage AI firms with limited financial history but strong growth potential. Limitations: The VC method depends on broad assumptions that can misstate value, especially given the uncertainty of AI adoption and scalability. It also overlooks key drivers such as data assets and technical expertise. [2]
Berkus Model	The Berkus Method values a pre-revenue AI company by assigning capped amounts to key success factors such as the idea, technology, management team, strategic relationships, and market potential. Limitations: The method is very subjective and highly varied, depending on the evaluator's judgment. It also overlooks key AI intangibles such as proprietary data, model design, and algorithmic performance, making it less suitable beyond early-stage firms. [3]
Scorecard Valuation	The Scorecard Valuation method benchmarks a pre-revenue AI company against comparable start-ups, adjusting the valuation for qualitative factors such as management quality, market opportunity, technology, and competitive positioning. Limitations: The method is highly subjective and may produce inconsistent results. It often fails to capture the rapid scalability, network effects, and proprietary data assets that drive value in AI companies. [1]

Sources:
[1] Payne, B. (2011). Scorecard valuation methodology. Establishing the Valuation of Prerevenue.
[2] Miloud, T., Aspelund, A., & Cabrol, M. (2012). Startup valuation by venture capitalists: an empirical study. Venture Capital, 14(2-3), 151-174
[3] Rajpal, S., Manglani, A., Kuchwaha, S., & Verma, S. K. (2024, December). Predicting Startup Valuation Using Deep Learning: A Data-Driven Analysis. In 5th International Conference on the Role of Innovation, Entrepreneurship and Management for Sustainable Development (ICRIEMSD-2024) (pp. 333-348). Atlantis Press.

Valuation Methods

Comparable Company Analysis	In a Comparable Company Analysis (CCA), the value of an AI company is estimated by comparing it to publicly traded peers or recent sector transactions, with reference to measures such as enterprise value or total transaction value observed in the market. Limitation: First, it can be challenging to identify a sufficient number of comparable companies with similar products, growth trajectories, and stages of development. In addition, many relevant transactions are not publicly disclosed. [4]
Discounted Cash Flow	The Discounted Cash Flow (DCF) model values a company by projecting its future cash flows and discounting them to present value using a risk-adjusted rate. Limitations: DCF fails to reflect decreasing risk over time as technology advances through the development process because a given discount rate can only represent the overall risk associated with an individual stage of development. [5]
Real Options Analysis	Real Options methodology estimates the value of an AI company by applying financial options theory to strategic decisions, capturing the impact of uncertainty on growth opportunities such as scaling operations, launching new products, or entering new markets. Limitations: Real Options rely on uncertain assumptions about volatility, growth, and probabilities, and become complex with multiple options. They require managerial judgment for market and unique risks and focus on future opportunities rather than near-term cash flows. [6]

Revenue-generating Stage Valuation:

Revenue Multiples	Revenue multiples value an AI company by applying a multiple to its current or projected revenues, providing a simple and market-oriented measure of worth. Limitations: Revenue multiples may fail to capture key sources of value in AI companies, such as investment in R&D, proprietary algorithms, and underlying technological assets. Mispricing often arises from inaccurate assumptions about growth, profitability, or terminal value, which can reduce the reliability of multiples in reflecting long-term potential. Moreover, revenue multiples do not fully account for variations in profitability and growth. Small adjustments in the selected multiple can also lead to disproportionately large changes in the implied revenue valuation. [7]

EBITDA-generating Stage Valuation:

EBITDA Multiples	EBITDA multiples value an AI company by applying a multiple to its earnings before interest, taxes, depreciation, and amortization, providing a snapshot of operational profitability. Limitations: EBITDA multiples focus primarily on operating profitability and may overlook non-operational factors and long-term growth potential. For AI companies, this approach can undervalue essential drivers such as R&D, proprietary algorithms, and scalable technologies, as it places greater emphasis on short-term performance rather than intangible or forward-looking assets. EBITDA multiples also fail to fully reflect variations in profitability, growth, or fluctuations arising from seasonal earnings. [8]

Sources:
[4] Miciuła, I., Kadłubek, M., & Stępień, P. (2020). Modern Methods of Business Valuation—Case Study and New Concepts. Sustainability, 12(7), 2699. https://doi.org/10.3390/su12072699
[5] Sun, Z. (2021, September). Review of the Importance of Technology Company Valuation and Commonly Used Methods. In 2nd International Conference on Management, Economy and Law (ICMEL 2021) (pp. 30-36). Atlantis Press.
[6] Boer, F. P. (2000). Valuation of technology using "real options". Research-Technology Management, 43(4), 26-30.
[7] Liu, J., Nissim, D., & Thomas, J. (2002). Equity valuation using multiples. Journal of Accounting Research, 40(1), 135-172.
[8] Moro-Visconti, R. (2024). The valuation of artificial intelligence. In Artificial Intelligence Valuation: The Impact on Automation, BioTech, ChatBots, FinTech, B2B2C, and Other Industries (pp. 405-506). Cham: Springer Nature Switzerland.

Valuation Process: Pre-Revenue

1. Valuing Pre-Revenue AI Companies: Steps in the Venture Capital Methodology

An appropriate tool used to value pre-revenue staged AI companies is the **Venture Capital Valuation** method. The process for the **Venture Capital** valuation is as follows:

01

Estimate the Required Investment

Determine how much funding the business needs to reach its next major milestone or scale effectively. This includes assessing capital requirements for product development, marketing, and operations in line with growth objectives.

$$\text{Required Investment} = \text{Total Project Costs} - \text{Current Cash Reserves}$$

02

Forecast Start-up Financials

Develop multi-year projections for revenue, expenses, and profit to estimate the company's **exit value.**

$$\text{EBITDA}_{exit} = \text{Revenue}_{exit} - \text{Operating Expenses}_{exit}$$

03

Determine the Timing of Exit

Estimate when investor plans to exit. This defines investment horizon used for discounting future values.

04

Estimate the Exit Value and Apply an Industry Multiple

Calculate the expected **exit value** by applying a relevant market multiple (e.g., EV/Revenue or EV/EBITDA) to the projected financial metric at exit.

$$\text{Exit Value} = \text{Financial Metric}_{exit} \times \text{Industry Multiple}$$

(Revenue or EBITDA)

05

Pre-Money Valuation

Many venture capitalists apply a target multiple to estimate the potential return on investment. For example, a VC may aim for a 10x return, meaning a company valued at $10 million today would need to reach $100 million at exit. Alternatively, if the expected exit value is $20 million and the VC targets a 5x multiple, the company's current valuation would need to be $4 million or less for the investment to be attractive.

06

Discount to Present Value and Determine Ownership Stake

Divide by the VC's required return multiple to obtain the post-money valuation. Then determine the investor's ownership percentage and pre-money valuation

$$\text{Investor Ownership (\%)} = \frac{\text{Required Investment}}{\text{Post-Money Valuation}}$$

$$\text{Post-Money Valuation} = \text{Pre-Money Valuation} + \text{Required Investment}$$

Valuation Process: Pre-Revenue

2. Valuing Pre-Revenue AI Companies: Steps in the Berkus Model Valuation Methodology

Another appropriate tool used to value pre-revenue staged AI companies is the **Berkus Model Valuation** method.

The process for the **Berkus Model Valuation** is as follows:

1. Identify Key Success Factors

The Berkus Model evaluates startup's potential by assigning value to five key elements that drive early-stage success:

Sound Idea

Management Valuation

Prototype

Strategic Relationships

Product Rollout or Sales

2. Assign Monetary Values to Each Factor

Each factor is assigned a notional value, generally up to $0.5 million, according to the evaluator's assessment of progress. In practice, these values may be adjusted upward to account for demonstrated traction, such as signed LOIs or strategic partnerships. [9]

3. Score Startup Against Each Factor

Compare the startup with benchmark for each category, based on judgement of progress or achievement.

4. Calculate the Pre-Money Valuation

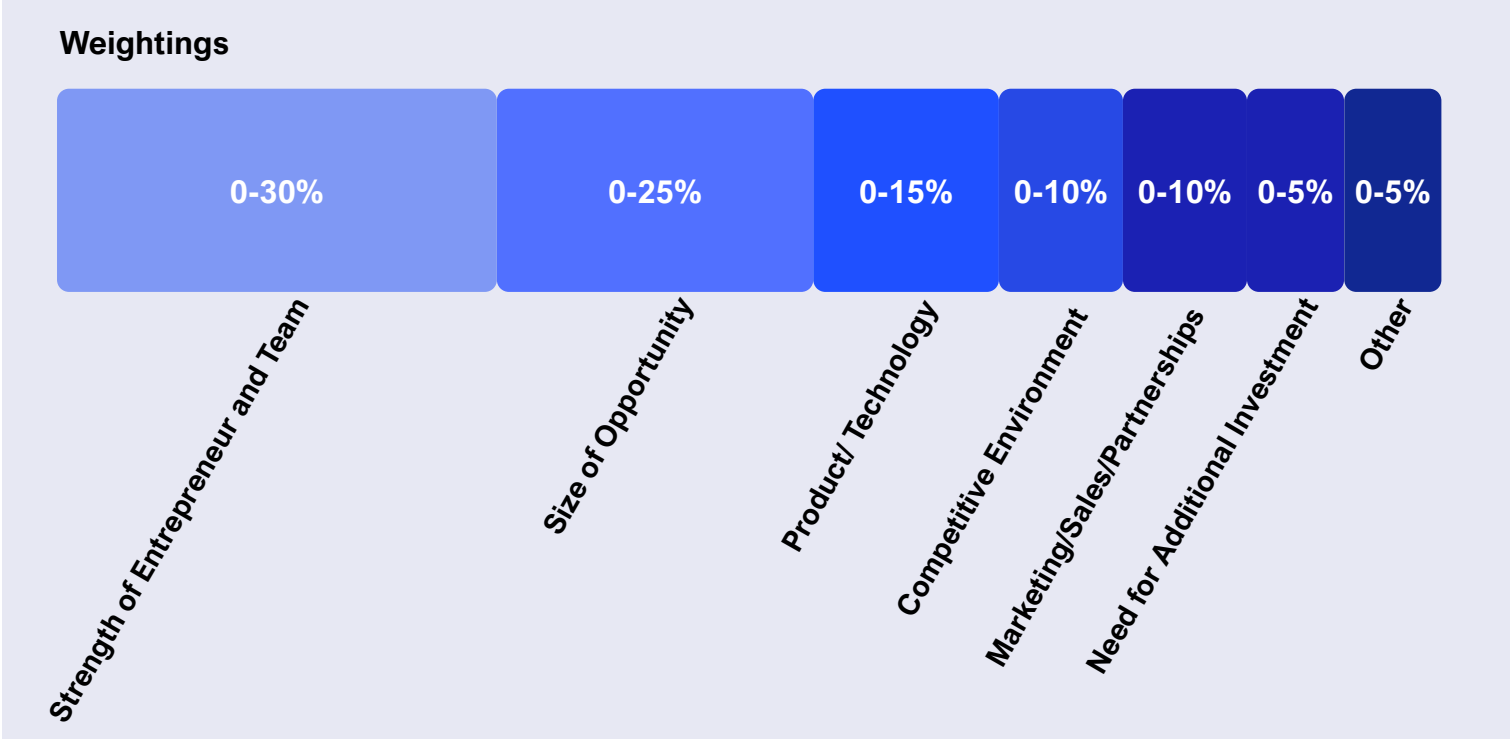
The pre-money valuation is estimated by aggregating the weighted values assigned to each factor, providing a qualitative measure of progress and potential before revenue generation. Although the original model suggests a notional maximum of roughly $2.5 million, this limit can be revised upward when evidence such as market traction or strategic partnerships justifies it. [9]

[9] Babu, Anjan & Mathews, Abraham & Chinmaya, A.. (2023). Dave Berkus Method. 10.1007/978-3-031-35291-1_10.

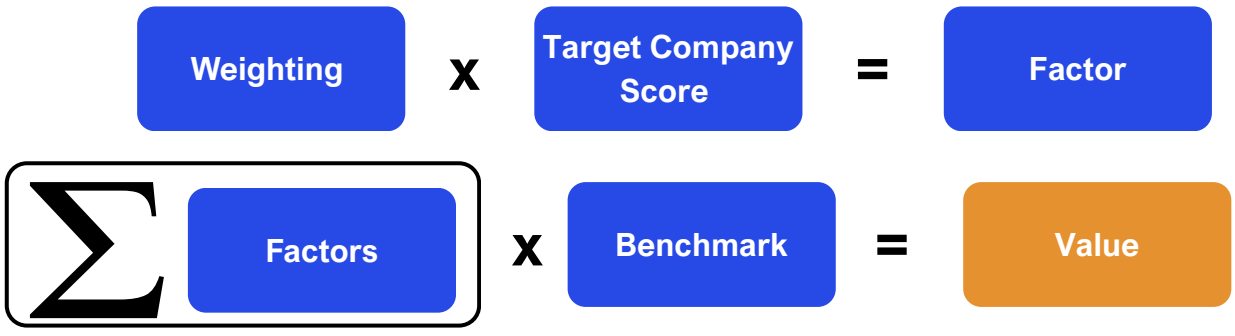
Valuation Process: Pre-Revenue

3. Valuing Pre-Revenue AI Companies: Steps in the Scorecard Valuation Methodology

An appropriate tool used to value pre-revenue staged AI companies is the **Scorecard Valuation** method. The process for the **Scorecard Valuation** is as follows:



In the Scorecard Valuation Method, each comparison factor is assigned a weight based on its importance. The target company is then scored as a percentage of the industry norm for each factor. This percentage is multiplied by the factor's weight to calculate an adjusted score. Finally, the sum of these adjusted scores is applied to a benchmark pre-money valuation to estimate the target company's pre-money value.



Valuation Process: Pre-Revenue

4. Valuing Pre-Revenue AI Companies: Steps in the Comparable Company Analysis Methodology

An appropriate tool used to value pre-revenue staged AI companies is the **Comparable Company Analysis** method.

The process for the **Comparable Company Analysis** is as follows:

1. Select Comparable Companies

Select peer group of publicly traded companies that operate in the same industry, growth stage, and business models.

2. Understand Industry Dynamics

Research the target's industry and market trends to determine what drives company valuations.

3. Derive Target Company Value

Apply selected comparable transaction value or listed value to estimate its value. Adjust for key drivers to justify positioning within transaction value or listed value ranges.

Valuation Process: Pre-Revenue

5. Valuing Pre-Revenue AI Companies: Steps in the Discounted Cash Flows (DCF) Methodology

An appropriate tool used to value pre-revenue staged AI companies is the **DCF** method.

The process for the **DCF** is as follows:

1. Forecast Future Cashflows (FCF)

Project the company's revenues, operating expenses, R&D, capital expenditures, and changes in net working capital to estimate FCF for each year.

FCF = EBIT x (1 - Tax Rate) + Depreciation & Amortisation - CapEx - Change in Working Capital

2. Determine the Discount Rate

Choose the appropriate Weighted Average Cost of Capital (WACC) to account for the risk of the cash flows.

3. Calculate Terminal Value

Estimate the company's value beyond the projection period using perpetuity growth model or exit multiple.

4. Discount Cash Flows to Present Value

Choose the appropriate Weighted Average Cost of Capital (WACC) to account for the risk of the cash flows.

5. Sum to Estimate Enterprise Value

Add present values of FCF and terminal value to get the total enterprise value of the company.

Valuation Process: Pre-Revenue

6. Valuing Pre-Revenue AI Companies: Steps in the Real Options Analysis Methodology

An appropriate tool used to value pre-revenue staged AI companies is the **Real Options Analysis** method. The process for the **Real Options Analysis** is as follows:

1. Identify the Real Options

Determine the strategic decisions that give the company flexibility, such as:

- Option to expand, delay, or abandon a project
- Option to develop next-generation products or enter new markets

2. Define the Underlying Asset and Exercise Price

- **Underlying Asset**: the value of the project or investment to be executed.
- **Exercise Price**: the cost required to execute the option

3. Determine the Option Type and Life

- Identify if its a call (option to invest) or put (option to abandon)
- Specify the timeframe over which the option can be exercised

4. Estimate Volatility and Risk Factors

- **Market Risk:** uncertainty in the underlying project value
- **Unique risk:** project-specific risks

5. Calculate Option Value

Apply option pricing models.

6. Combine with Base Valuation

Add calculate options value(s) to the base value of the project

7. Sensitivity Analysis

Test how option changes with volatility, growth and/or timing assumptions

Valuation Process: Revenue Generating

Valuing Pre-Revenue AI Companies: Steps in the Revenue Multiples Valuation Methodology

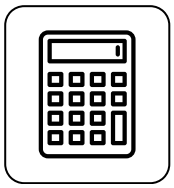
An appropriate tool used to value revenue-generation staged AI companies is the **Revenue Multiples valuation** method. The valuation process involves the following steps:

1.Select Revenue Metric
Annual recurring revenue (ARR), total revenue from subscriptions, licensing, data sales, consulting, usage fees, advertising, AI-enabled products, or performance-based contracts.

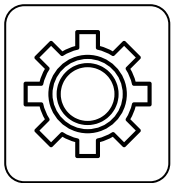
2.Identify Comparables
AI or tech companies at a similar stage and business model

3.Determine Multiple
Average revenue multiple from comparables
EV / Revenue

AI Industry Average
9.68x



4.Apply Multiple
Multiply target company revenue by the selected multiple to estimate enterprise value



5. Adjust for Unique Factors
Consider factors such as growth potential, market position, technological differentiation, company size, liquidity or illiquidity adjustments, control premiums, and associated risks.

6. Convert to Equity Value
Subtract net debt or add net cash if needed

Valuation Process: EBITDA Generating

Valuing Pre-Revenue AI Companies: Steps in the EBITDA Multiples Valuation Methodology

An appropriate tool used to value EBITDA-generation staged AI companies is the **EBITDA Multiples valuation** method.

The valuation process involves is as follows:

EBITDA	=					
Revenue	**-**	**Costs**	**+**	**Interest + Taxes**	**+**	**Depreciation + Amortisation**
+ subscriptions + licensing + data sales + consulting + usage fees + advertising + AI-enabled products + performance-based contracts.		- cloud computing - data acquisition - storage - software development - salaries - marketing - infrastructure maintenance - R&D		+ interest + taxes		Examples for: + servers + hardware + software + algorithms + proprietary datasets

1.Identify Comparables
AI or tech companies at a similar stage and business model

2.Determine Multiple
Average EBITDA multiple from comparables
EV / EBITDA

3.Apply Multiple
Multiply target company EBITDA by the selected multiple to estimate enterprise value

4. Adjust for Unique Factors
Consider factors such as growth potential, market position, technological differentiation, company size, liquidity or illiquidity adjustments, control premiums, and associated risks.

5. Convert to Equity Value
Subtract net debt or add net cash if needed

Multiples and Valuation Ranges

Our internal analysis on the M&A transaction deals of AI companies in Europe, North America and Australia were conducted over the past 5 years. Results are shown in the table below.

Table 1: Overall Industry Median

Category	Metric	Count	Median
Revenue Generating	EV/ Revenue	19	9.68x
EBITDA Generating	EV / EBITDA	5	19.1x

Revenue multiple median of 9.68x and EBITDA multiple median of 19.1x are consistent with mid-market AI transaction ranges.

Table 2: EV/Revenue: Detailed Breakdown by EV Size

EV Quartile	Count	Median
Q1	4	3.18x
Q2	3	9.68x
Q3	5	21.4x
Q4	7	37.7x

As displayed in the table above, M&A deals of revenue-generating firms indicate increasing median revenue multiples increasing from 3.18x → 9.68x → 21.4x → 37.7x with increasing deal sizes. This therefore suggests a modest size premium after outlier adjustments.

The upward trend in revenue multiples across quartiles indicates that larger AI transactions attract valuation premiums, likely reflecting stronger scalability, proprietary technology, or established revenue traction. Higher deal sizes typically involve companies with proven business models, diversified customer bases, and defensible data or model assets, which reduce perceived risk.

(Mergermarket, 2025)

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Let's Talk About Your Valuation

Whether you're preparing for a capital raise, a licensing deal, a shareholder transaction, or a cross-border negotiation, Sherwood can help you understand, articulate, and defend your value.

Contact us to book a confidential valuation strategy session

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