

# Valuation Analysis of Alibaba Using P/E, P/B, and EV/EBITDA Models

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## Abstract

**Background:** As a leading enterprise in China's internet industry, Alibaba Group Holding Limited holds significant reference value for investors, competitors, and academic researchers in terms of valuation analysis. This study aims to evaluate its intrinsic value and assess the rationality of market pricing through multiple relative valuation models. **Methods:** This study selects Tencent Holdings, JD.com, and Meituan as comparable companies. It applies three trading multiples within the relative valuation framework—Price-to-Earnings (P/E), Price-to-Book (P/B), and Enterprise Value to EBITDA (EV/EBITDA)—to conduct a comprehensive valuation analysis of Alibaba for fiscal year 2025 and the forecast period. **Results:** The analysis indicates that among the three models, EV/EBITDA demonstrates the highest applicability for valuing Alibaba in fiscal year 2025, as it is not affected by capital structure, non-operating income, or substantial capital expenditures. The P/E ratio exhibits reduced reliability due to distortions in net profit, while the P/B ratio shows the lowest applicability because Alibaba's core value lies in its asset-light structure and platform ecosystem, which are not well aligned with the assumptions of this model. **Conclusion:** The findings emphasize that the selection of valuation methods should be based on a firm's specific operating conditions and financial characteristics at a given stage.

## Keywords

Alibaba, valuation analysis, P/B, EV/EBITDA, comparable company analysis

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## 1. Introduction

Since the late 20th century, the internet industry has rapidly entered public view, leading to the accelerated development of global internet applications and the emergence of a large number of e-commerce companies. According to relevant data and statistical surveys, the number of global internet users has reached approximately 2.4 billion to date, and the internet industry contributes 8.3% and 7.3% to the GDP of countries such as the United Kingdom and South Korea, respectively, demonstrating its substantial growth potential and influence [1]. Amid the rapid expansion of the global internet, China's internet market also experienced significant development. In 1999, with the widespread global adoption of the internet, Jack Ma and 17 co-founders established Alibaba Group Holding Limited to meet the growing demand for e-commerce in China. Within three years of its establishment, Alibaba achieved profitability in 2002 and continued to expand through organic growth and mergers and acquisitions. In 2009, it entered the cloud computing sector and began developing artificial intelligence technologies to support its platform ecosystem.

Over two decades, Alibaba expanded its business through diversification, increasing its revenue to USD 72 billion [2], with operations spanning consulting, e-commerce, finance, technology, and artificial intelligence. With the vision and leadership of Jack Ma, Alibaba rapidly grew into China's largest online commerce enterprise. By 2020, it had become the sixth most valuable company in the world, with 757 million annual active customers [2]. As a result, it has become a favored target for investors and a focal point for valuation analysis among industry analysts. Therefore, conducting a comprehensive and in-depth valuation analysis of Alibaba is of great significance.

The analytical method used to estimate a company's current or projected value is referred to as corporate valuation. Through valuation analysis, a firm's fair value and intrinsic value can be approximated and subsequently compared with its current market value [3]. The core objective of valuation is to determine whether a company's stock is "overvalued" or "undervalued." For investors, in-depth financial modeling can help identify discrepancies between market price and intrinsic value, thereby informing decisions to "buy," "hold," or "sell," uncovering investment opportunities while mitigating risks. For competitors, as an industry leader, Alibaba's financial indicators—such as revenue growth rate—as well as its business model and market strategies serve as industry benchmarks. By analyzing Alibaba's intrinsic value, competitors can better understand industry standards and position themselves strategically within the market. In summary, a comprehensive valuation analysis of Alibaba provides essential insights for decision-making, competition, and academic research, with implications extending beyond the firm itself to the broader industry. Therefore, to assess Alibaba's intrinsic value, this study employs relevant financial data and industry reports, and applies three trading multiples—P/E, P/B, and EV/EBITDA—within the framework of relative valuation to conduct a comprehensive analysis of the same subject: Alibaba.

## 2. Overview of Valuation Methods

Valuation is a core tool in finance, investment, and corporate management. It is not merely a numerical outcome, but also a framework for understanding value, assessing risk, and making rational decisions. For internet companies, which have attracted extensive attention from equity investors, reasonable valuation serves as a prerequisite for scientific pricing and investment decisions [4]. Therefore, the selection of appropriate valuation methods for internet firms is particularly critical. Relative valuation determines value by benchmarking against comparable companies in the market, whereas absolute valuation estimates intrinsic value based on a firm's expected future cash flows. The combination of these two approaches allows for mutual verification and enhances the robustness of valuation conclusions. Accordingly, this study employs both relative and absolute valuation approaches, utilizing different parameters and models to assess the intrinsic value of Alibaba Group Holding Limited.

Within the relative valuation framework, one of the most widely used core methods is Comparable Company Analysis (Comps). Its essence lies in the identification of comparability or similarity [5], and it serves as a primary approach for valuing specific companies, divisions, business segments, or asset portfolios. The application of Comparable Company Analysis is based on the premise that similar companies share key operational, financial, and risk characteristics, thereby providing meaningful benchmarks for valuation. By positioning the target company relative to its industry peers, analysts can derive appropriate valuation parameters. The core of this approach lies in selecting a group of sufficiently comparable firms (i.e., the "peer group") as references. Subsequently, valuation multiples (trading multiples) are calculated, which form the basis for determining the valuation range of the target company. This range is obtained by applying the selected multiples to the relevant financial metrics of the target firm.

Commonly used valuation multiples include P/E, EV/EBITDA, and P/B, among which the first two are the most frequently applied. The Price-to-Earnings (P/E) ratio is based on equity price and earnings, calculated as the current share price divided by diluted earnings per share (or equity value divided by net income). It can be interpreted as a measure of how much investors are willing to pay for each unit of a company's current or future earnings. As one of the most widely recognized trading multiples, the P/E ratio is typically based on forward earnings per share (and to a lesser extent on trailing twelve-month earnings), reflecting investors' focus on future growth. The formulas are as follows:  $P/E \text{ Ratio} = \text{Share Price} / \text{Diluted EPS}$ ;  $P/E \text{ Ratio} = \text{Equity Value} / \text{Net Income}$ . Despite its widespread use, the P/E ratio has limitations. For companies with minimal or negative earnings, the denominator may be extremely small or even negative,

rendering the metric unreliable or inapplicable. The Price-to-Book (P/B) ratio is a financial valuation metric used to assess the relationship between a company's market value and its book value. It is calculated as:  $P/B = \text{Market Capitalization} / \text{Net Book Value}$ ; or  $P/B = \text{Share Price} / \text{Net Book Value per Share}$ , where:  $\text{Net Book Value} = \text{Total Assets} - \text{Total Liabilities}$ . The Enterprise Value to EBITDA (EV/EBITDA) ratio is a widely adopted valuation standard across most industries. Its advantages lie in its independence from capital structure and taxation, as well as its resistance to distortions arising from differences in accounts receivable and payable across firms. However, it may overestimate cash flow for capital-intensive companies when capital expenditures are not considered, and it does not reflect changes in working capital, which may lead to distortions in actual cash flow. The formula is:  $\text{EV/EBITDA Ratio} = \text{Enterprise Value} / \text{EBITDA}$ , where:  $\text{Enterprise Value (EV)} = \text{Market Capitalization} + \text{Interest-bearing Debt} - \text{Cash Equivalents}$ ;  $\text{EBITDA} = \text{Net Income} + \text{Income Tax} + \text{Interest Expense} + \text{Depreciation and Amortization}$ .

### 3. Selection and Analysis of Comparable Companies

When applying the Comparable Company Analysis method for relative valuation, identifying a set of core comparable firms and comparing their relevant financial and operational data with those of the target company is a crucial step in determining the valuation range. To identify firms with similar business and financial characteristics, a clear and comprehensive understanding of the target company is essential.

Based on research and analysis, this study selects Tencent Holdings, JD.com, and Meituan as comparable companies to Alibaba Group Holding Limited. The rationale for this selection is as follows. First, from the perspective of business operations and industry classification, Alibaba, as the largest e-commerce platform in China, operates across multiple sectors, including e-commerce, cloud computing, logistics, digital media, and local services, forming a comprehensive and robust business ecosystem. Tencent, as an integrated internet service provider, has become a global leader in internet technology, with business segments covering social media, digital entertainment, fintech, and cloud computing [6]. JD.com, as a leading self-operated e-commerce enterprise, operates one of the world's largest drone delivery systems and infrastructures, and is listed among the *Fortune Global 500* companies. Its business model is similar to that of Amazon [7], centering on a hybrid model combining self-operated retail and a marketplace platform, supported by logistics and fintech services, with a strong emphasis on supply chain capabilities. Meituan, as a leading local services platform, primarily operates online and on-demand delivery services. In addition to food delivery, its services have increasingly expanded to include instant consumption goods such as pharmaceuticals and daily necessities [8]. These four companies are all Chinese internet giants listed in the Hong Kong market, with highly related and complementary business operations. Their industries and business models exhibit a high degree of similarity. Second, from the perspective of products and services, Alibaba operates platforms such as Taobao, Tmall, and Alibaba Cloud, adopting a business model that integrates platform operations with technology services. Tencent provides products such as WeChat and QQ, with a service model centered on social connectivity combined with technological support. JD.com operates JD Mall and JD Logistics, following a model that combines self-operated retail with an open platform. Meituan provides services such as Meituan Food Delivery and Meituan Grocery, adopting an O2O (online-to-offline) model integrated with on-demand delivery. All four companies offer online transaction services to both consumers and merchants, and have established a dual-driven model based on technology and services, indicating strong comparability in their product and service structures. Third, from the perspective of customer base and end markets, Alibaba serves users across all age groups, with a primary focus on middle-to-high-income consumers, while also covering multiple industries such as manufacturing and retail. Tencent also serves a broad user base across all age groups, leveraging its strong social traffic advantage, with major clients including game developers and content creators. JD.com primarily targets middle-class consumers in first- and second-tier cities, characterized by strong purchasing power, high repurchase rates, and higher average order values, while serving authorized distributors and retailers with an emphasis on product quality and authenticity assurance. Meituan primarily targets younger consumers, characterized by high-frequency and low average transaction value consumption patterns. Overall, all four companies possess massive user bases and rank among the most widely used internet platforms in China. Their customer segments and end markets are therefore broadly comparable. Finally, the financial conditions of these companies are analyzed across five dimensions, as presented in Table 1.

*Table 1: Financial Summary Table*

Company	Market Capitalization (Nov 2025)	Revenue (FY2025)	Total Assets (Q2 2025)	Net Profit Margin (FY2025)	Gross Margin (Q2 2025)	Revenue Growth (FY2025)	Capital Expenditure (Q2 2025)	ROE (Q2 2025)	ROA (Q2 2025)	Debt-to-Asset Ratio (Q2 2025)	Cash Reserves (Q2 2025)
Alibaba Group Holding Limited	HKD 3.02 trillion	RMB 996.35 billion (+6%)	RMB 1.2 trillion	14.1%	42%	6%	RMB 31.8 billion	12%	8%	48%	RMB 585.66 billion
Tencent Holdings	HKD 5.95 trillion	RMB 660.26 billion (+10%)	RMB 2.01 trillion	29.7%	56%	10%	RMB 20.0 billion	8.8%	5.7%	40.3%	RMB 500.0 billion
JD.com	HKD 387.9 billion	RMB 1,158.82 billion (+6.8%)	3940 billion	3.85%	15%	6.8%	RMB 15.0 billion	6%	3%	53.5%	RMB 116.5 billion
Meituan	HKD 645.0 billion	RMB 337.59 billion (+22%)	RMB 330.2 billion	10.6%	35%	22%	RMB 12.0 billion	5.7%	3.2%	44.2%	RMB 100.0 billion

Data source: Company financial reports, industry reports, and Sina Finance.

Based on the market capitalization, revenue, and total asset data presented in Table 1, the relative scale of the companies can be assessed. The results indicate that all firms are comparable in size and belong to the top tier of China's internet industry. From the revenue growth rates, it can be observed that although each company is driven by different growth factors, all are currently undergoing business transformation and diversified expansion, suggesting a high degree of comparability. Furthermore, based on indicators such as ROE, ROA, debt-to-asset ratio, and cash reserves, the investment return and financial stability of these firms can be evaluated. The results show that all companies maintain sound financial structures and sufficient cash reserves to withstand risks, thereby providing a solid foundation for relative valuation analysis.

#### 4. Valuation Analysis

This study applies three commonly used trading multiples within the relative valuation framework—P/E, P/B, and EV/EBITDA—to conduct a valuation analysis of Alibaba Group Holding Limited. The valuation date is set as March 2025, and 2025E and 2026E refer to forecast values based on calendar years.

*Table 2: Valuation Implied by P/E*

Time Period	Financial Metric (billions)	Multiple Range	Implied Equity Value (HKD billions)	Fully Diluted Shares (billions)	Implied Share Price (HKD)
LTM	134.79	14.1x—21.5x	1890.54—2907.99	19.1	98.98—152.25
2025E	141.24	16.0x—23.0x	2259.84—3248.52	19.1	118.32—170.08
2026E	190.46	18.0x—25.0x	3428.28—4761.50	19.1	179.49—249.29

Data source: Company financial reports, announcements from the Hong Kong Monetary Authority, and industry research reports.

*Table 3: Valuation Implied by EV/EBITDA*

Time Period	Financial Metric (billions)	Multiple Range	Implied Enterprise Value (billions)	Net Debt (billions)	Implied Equity Value (billions)	Fully Diluted Shares (billions)	Implied Share Price (HKD)
LTM	235.4	8.0x—11.0x	1883.2—2589.4	-264.29	2147.49—2853.69	19.1	112.43—149.41
2025E	251.45	9.0x—12.0x	2263.05—3017.40	-264.29	2527.34—3281.69	19.1	132.32—171.82
2026E	299.6	9.5x—12.5x	2846.20—3745.00	-264.29	3110.49—4009.29	19.1	162.85—209.91

Data source: Company financial reports, announcements from the Hong Kong Monetary Authority, and industry research reports.

*Table 4: Valuation Implied by P/B*

Time Period	Book Value (billions)	Multiple Range	Implied Equity Value (billions)	Fully Diluted Shares (billions)	Implied Share Price
LTM	877.4	2.0x—4.0x	1754.8—3509.6	19.1	91.88—183.75
2025E	941.6	2.2x—4.2x	2071.52—3954.72	19.1	108.46—207.05
2026E	1016.5	2.4x—4.4x	2439.6—4472.6	19.1	127.73—234.17

*Data source: Company financial reports, announcements from the Hong Kong Monetary Authority, and industry research reports.*

According to data from the Hong Kong Exchange, the median share price and equity value during the LTM (Last Twelve Months) period, with March 2025 as the valuation starting point, are HKD 130.92 and HKD 2,500.59 billion, respectively. The corresponding averages are HKD 131.45 and HKD 2,510.69 billion. By comparing the valuation results derived from the three multiples for the LTM period, it is evident that EV/EBITDA demonstrates the highest applicability in valuing Alibaba. The possible reasons are as follows: First, the P/E ratio relies on net profit. However, in fiscal year 2025, Alibaba's net income was significantly affected by non-operating gains, which undermines the reliability of both the mean and median P/E values as indicators of its core operating performance. Second, to advance its "AI + Cloud" strategy, Alibaba's capital expenditure reached RMB 92.484 billion in fiscal year 2025. This led to a substantial reduction in free cash flow. Meanwhile, increased R&D investment, infrastructure depreciation, and amortization expenses further reduced reported accounting profits. However, these expenditures do not affect EBITDA calculations, making EV/EBITDA a more stable and appropriate valuation metric. In contrast, the P/B ratio exhibits the lowest applicability among the three valuation multiples for Alibaba in fiscal year 2025. This is primarily because Alibaba's core value does not lie in its book net assets, making it difficult for P/B to capture its intrinsic worth. Alibaba's competitive advantages are rooted in its platform ecosystem, technological barriers, and user base—intangible, asset-light factors rather than tangible fixed assets. As a result, both the median and mean P/B values provide limited explanatory power for valuation. Moreover, Alibaba's asset structure is fundamentally misaligned with the typical application scenarios of the P/B ratio. P/B is more suitable for industries such as finance and heavy manufacturing, where operations rely heavily on tangible assets. In contrast, Alibaba's core revenues in fiscal year 2025 are primarily derived from platform-based businesses such as Taobao and Tmall (with a profit margin of 43.5%) and technology services such as Alibaba Cloud, which do not depend on significant net asset turnover. Consequently, the applicability of the P/B ratio is naturally the lowest among the three methods.

## 5. Conclusion

Based on the analysis conducted in this study, and the valuation calculations for Alibaba Group Holding Limited in fiscal year 2025, it is found that, under specific conditions, EV/EBITDA may be the most appropriate trading multiple for valuation. However, in practice, each of the three valuation multiples exhibits its own advantages and limitations. When Alibaba's capital structure—such as debt and cash levels—remains relatively stable, and net profit accurately reflects its core profitability, the P/E ratio is more suitable. This is because P/E directly corresponds to equity value and aligns with the return perspective of equity investors, providing an intuitive measure of valuation per unit of earnings. When Alibaba experiences significant changes in capital structure or when net profit is substantially affected by non-operating factors, EV/EBITDA becomes more appropriate. By excluding the effects of debt, taxation, and depreciation and amortization, EV/EBITDA focuses on the firm's core operating cash flow capacity and better reflects its operational performance. The P/B ratio, which is linked to net assets, is more suitable in scenarios where profitability is temporarily weak but asset quality remains high and a sufficient margin of safety exists. For example, if the internet advertising industry were to experience a downturn in 2026, leading to a decline in Alibaba's advertising revenue and a corresponding decrease in net profit, the P/E ratio might appear artificially elevated due to reduced earnings and thus fail to reflect the firm's true valuation. Therefore, selecting appropriate valuation methods and trading multiples based on a firm's specific operating conditions, capital structure, and financial indicators—such as cash flow—is a critical task that requires careful consideration by analysts.

Finally, this study only conducts valuation analysis based on Alibaba's financial data from 2025 to 2027. Future research will further refine the valuation framework by incorporating additional trading multiples and

extending the analysis across more time periods, in order to better estimate Alibaba's intrinsic value under varying conditions.

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The authors declare no conflict of interest.

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