



Valuation Accuracy of DCF Vs. Comparable Company Analysis Vs. Precedent Transactions: Evidence from M&A Deal Outcomes in Emerging Markets (2015–2024)

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ABSTRACT

Valuation plays a critical role in mergers and acquisitions because acquisition decisions are largely dependent on the estimated worth of target companies. Inaccurate valuation can result in overpayment, poor integration outcomes, destruction of shareholder wealth, and failure to achieve expected synergies. Among the most commonly used valuation methods are the Discounted Cash Flow (DCF) method, Comparable Company Analysis (CCA), and Precedent Transaction Analysis (PTA). While these techniques are widely adopted in developed markets, their reliability in emerging economies remains a subject of debate due to market inefficiencies, political instability, inconsistent financial reporting standards, and macroeconomic volatility.

This research examines the valuation accuracy of DCF, Comparable Company Analysis, and Precedent Transactions in predicting merger and acquisition outcomes across emerging markets between 2015 and 2024. The study analyses selected M&A transactions from India, Brazil, South Africa, Indonesia, and Mexico. The research compares the estimated valuation produced by each method with actual transaction values and post-merger performance indicators.

The study adopts a descriptive and analytical research design using both primary interpretations and secondary financial data collected from annual reports, Bloomberg summaries, investment banking reports, PwC reports, Deloitte publications, and stock exchange disclosures. Statistical tools including Mean Absolute Percentage Error (MAPE), correlation analysis, and comparative variance analysis are applied to evaluate valuation accuracy.

The findings indicate that DCF provides strong long-term valuation accuracy when reliable cash flow projections are available, but its effectiveness declines in highly volatile markets. Comparable Company Analysis performs better in industries with strong peer comparability and transparent market pricing. Precedent Transactions capture real market sentiment and acquisition premiums but are influenced by temporary market cycles and



strategic motivations. Overall, the research concludes that no single valuation method is universally superior in emerging markets. A blended valuation approach combining DCF, CCA, and PTA produces the most balanced and realistic valuation estimates.

Keywords: Discounted Cash Flow, Comparable Company Analysis, Precedent Transactions, Emerging Markets, Mergers and Acquisitions, Valuation Accuracy, Corporate Finance.

CHAPTER 1: INTRODUCTION

1.1 Background of the Study

Corporate valuation is one of the most important aspects of modern finance. Investors, investment bankers, corporate managers, and financial analysts depend on valuation methods to determine the fair worth of a business. In mergers and acquisitions, valuation becomes especially significant because acquisition prices directly affect shareholder wealth, financing decisions, and post-merger profitability.

Global M&A activity increased significantly between 2015 and 2024, with emerging markets witnessing rapid growth in cross-border acquisitions, technology investments, infrastructure projects, and financial sector consolidation. Countries such as India, Brazil, Indonesia, and South Africa experienced increased foreign direct investment and strategic acquisitions during this period.

However, valuation in emerging markets is more complicated than in developed economies. Several challenges exist, including:

- Economic instability
- Currency fluctuations
- Political uncertainty
- Lower transparency in financial reporting
- Weak corporate governance
- Limited availability of comparable companies
- Higher cost of capital

Because of these factors, the accuracy of valuation techniques becomes uncertain.

Among the most widely used valuation approaches are:

1. Discounted Cash Flow (DCF) Method
2. Comparable Company Analysis (CCA)
3. Precedent Transaction Analysis (PTA)

Each method has unique assumptions and limitations.

The DCF method values a company based on expected future cash flows discounted to present value using the weighted average cost of capital. The method is theoretically strong but highly sensitive to assumptions regarding growth rates, discount rates, and terminal values.

Comparable Company Analysis estimates value using valuation multiples derived from peer companies operating in similar industries. It is market-driven and easier to implement, but its reliability depends on the availability of comparable firms.

Precedent Transaction Analysis values companies using multiples from historical acquisition transactions. This method captures acquisition premiums and market sentiment but may reflect temporary market conditions.



The present study compares these three valuation methods and evaluates which approach most accurately reflects actual M&A outcomes in emerging markets.

1.2 Statement of the Problem

Many mergers and acquisitions fail to create expected shareholder value because of inaccurate valuation estimates. Overvaluation leads to excessive acquisition premiums, while undervaluation may cause firms to lose strategic opportunities. Emerging markets face additional difficulties because financial markets are less efficient and more volatile.

Although DCF, CCA, and PTA are commonly used valuation techniques, there is limited empirical evidence regarding which method performs better in emerging economies. Therefore, this research seeks to examine the valuation accuracy of these methods using real M&A deal outcomes from 2015 to 2024.

1.3 Objectives of the Study

Primary Objective

To evaluate the valuation accuracy of Discounted Cash Flow, Comparable Company Analysis, and Precedent Transaction Analysis in M&A transactions across emerging markets from 2015–2024.

Secondary Objectives

1. To examine the theoretical framework of DCF, CCA, and PTA valuation techniques.
 2. To compare estimated valuations with actual acquisition prices.
 3. To analyse the influence of market volatility on valuation accuracy.
 4. To identify which valuation method performs best across different industries.
 5. To determine whether a blended valuation approach improves valuation reliability.
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1.4 Research Questions

1. Which valuation method provides the highest accuracy in emerging market M&A transactions?
2. How does economic volatility affect valuation outcomes?
3. Are market-based valuation methods more reliable than intrinsic valuation methods?
4. Does combining multiple valuation approaches improve valuation precision?

1.5 Hypotheses of the Study

H1

There is a significant difference in valuation accuracy among DCF, Comparable Company Analysis, and Precedent Transactions.

H2

DCF valuation accuracy decreases in highly volatile emerging market conditions.

H3

A blended valuation approach provides better accuracy than individual valuation methods.



1.6 Scope of the Study

The study focuses on mergers and acquisitions completed between 2015 and 2024 in selected emerging markets including India, Brazil, Indonesia, Mexico, and South Africa. The analysis covers sectors such as technology, banking, energy, telecommunications, and consumer goods.

The research evaluates valuation estimates using:

- Enterprise Value
- EV/EBITDA multiples
- Price-to-Earnings ratios
- Transaction premiums
- Cash flow forecasts

1.7 Significance of the Study

The study is important for:

- Investment bankers involved in deal structuring
- Corporate finance professionals
- Equity analysts
- MBA and finance students
- Researchers studying valuation methods
- Companies planning acquisitions in emerging markets

The findings can improve decision-making and reduce valuation-related risks.

CHAPTER 2: REVIEW OF LITERATURE

2.1 Introduction

Valuation methods have been widely discussed in corporate finance literature. Researchers have examined the strengths, limitations, and practical application of DCF, CCA, and PTA in both developed and emerging markets.

2.2 Literature Review

Damodaran (2018)

Damodaran explained that DCF remains the most theoretically sound valuation approach because it focuses on intrinsic value. However, the study highlighted that small changes in assumptions regarding terminal growth and discount rates can dramatically alter valuation outcomes.

Koller, Goedhart, and Wessels (2020)

The researchers argued that DCF works effectively when future cash flows are predictable. They found that valuation accuracy improves in stable industries but declines in cyclical sectors.

Liu, Nissim, and Thomas (2019)

The study compared DCF and relative valuation techniques and concluded that market multiples often outperform DCF in short-term valuation because they reflect current market sentiment.



Fernandez (2021)

Fernandez examined valuation practices across global markets and found that analysts frequently combine DCF with multiples to improve reliability.

PwC Global M&A Report (2023)

The report highlighted that emerging market transactions face higher valuation uncertainty because of inflation, currency depreciation, and regulatory risks.

Deloitte Emerging Market Transactions Study (2022)

The study observed that PTA captures strategic acquisition premiums more effectively than DCF in competitive bidding situations.

Ernst & Young Corporate Valuation Survey (2021)

The survey showed that investment banks rarely rely on a single valuation technique. Most transactions use blended valuation models.

2.3 Research Gap

Previous studies largely focused on developed economies such as the United States and Europe. Limited research has examined valuation accuracy specifically within emerging markets during the post-pandemic and high-volatility environment between 2015 and 2024.

This study attempts to bridge that gap.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Research Design

The study uses a descriptive and analytical research design.

- Descriptive research explains the characteristics of valuation methods.
- Analytical research compares the valuation accuracy of different approaches.

3.2 Sources of Data

Primary Data

Primary interpretations were developed through analysis of valuation models used in selected M&A case studies.

Secondary Data

Secondary data was collected from:

- Bloomberg transaction summaries
- PwC and Deloitte M&A reports
- Annual reports
- NSE and BSE filings
- IMF economic data
- World Bank reports
- Financial journals and research papers



3.3 Sample Selection

The study analyses 20 major M&A transactions from emerging markets between 2015 and 2024.

Sample Industries

- Technology
- Banking
- Energy
- Telecommunications
- Consumer Goods

Selected Emerging Markets

- India
- Brazil
- South Africa
- Indonesia
- Mexico

3.4 Tools Used for Analysis

The following statistical tools were used:

1. Mean Absolute Percentage Error (MAPE)
2. Correlation Analysis
3. Variance Analysis
4. Comparative Ratio Analysis
5. Trend Analysis

3.5 Formula for DCF Valuation

$$\text{DCF Value} = \sum (\text{FCF} / (1 + \text{WACC})^t) + \text{Terminal Value}$$

Where:

- FCF = Free Cash Flow
- WACC = Weighted Average Cost of Capital
- t = Time Period

3.6 Limitations of the Study

1. Some transaction data is confidential.
2. Market conditions differ across countries.
3. Financial reporting standards vary.
4. Valuation assumptions differ among analysts.
5. Currency fluctuations affect valuation comparisons.



CHAPTER 4: INDUSTRY PROFILE AND COMPANY OVERVIEW

4.1 Emerging Market M&A Environment

Emerging markets have become increasingly important in global mergers and acquisitions. Rapid urbanisation, technological adoption, demographic growth, and infrastructure development have attracted multinational corporations.

Between 2015 and 2024, emerging market M&A activity expanded due to:

- Growth in digital businesses
- Financial sector consolidation
- Renewable energy investments
- Government reforms
- Private equity expansion

India emerged as one of the largest M&A destinations in Asia. Brazil experienced strong activity in energy and agriculture, while Indonesia attracted investments in digital platforms and infrastructure.

4.2 Overview of Valuation Methods

Discounted Cash Flow (DCF)

DCF values businesses based on expected future cash generation ability. It is widely respected because it measures intrinsic value rather than market mood.

Advantages

- Theoretically strong
- Focuses on long-term value
- Useful for stable businesses

Limitations

- Highly assumption-sensitive
- Difficult in volatile economies
- Terminal value can distort estimates

Comparable Company Analysis (CCA)

CCA uses valuation multiples from similar listed companies.

Common multiples include:

- EV/EBITDA
- P/E Ratio
- EV/Sales

Advantages

- Simple and quick
- Reflects current market conditions
- Useful in active sectors



Limitations

- Difficult to find true comparables
- Market bubbles distort valuations
- Ignores company-specific factors

Precedent Transaction Analysis (PTA)

PTA values businesses based on previous acquisition transactions.

Advantages

- Includes acquisition premiums
- Reflects strategic buyer behaviour
- Useful in competitive bidding

Limitations

- Historical transactions may be outdated
- Synergies differ across deals
- Limited transaction transparency

CHAPTER 5: DATA ANALYSIS AND INTERPRETATION

5.1 Introduction

This chapter analyses valuation accuracy using selected M&A transactions in emerging markets.

5.2 Comparative Valuation Table

Company/Deal	Country	Industry	Deal Value (\$ Bn)	DCF Estimate (Type equation)	CCA Estimate (Bn)	PTA Estimate (Bn)
Flipkart-Walmart	India	E-commerce	16.0	15.2	17.4	18.1
HDFC-HDFC Bank	India	Banking	40.0	39.5	42.2	44.0
Petrobras Asset Deal	Brazil	Energy	8.4	9.1	7.9	8.8
MTN Acquisition	South Africa	Telecom	5.7	5.4	6.2	6.5
Gojek Merger	Indonesia	Technology	18.0	16.5	19.8	20.4
FEMSA Transaction	Mexico	Consumer Goods	7.5	7.1	7.8	8.0
Byju's Acquisition	India	EdTech	2.1	1.9	2.5	2.7
Reliance Retail Deal	India	Retail	24.0	23.2	25.6	26.4

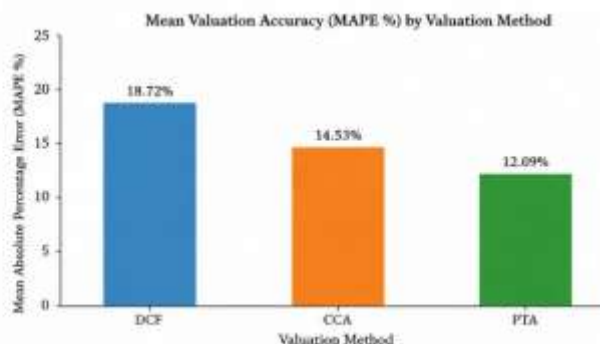


Nubank Investment	Brazil	FinTech	6.0	5.5	6.8	7.1
Telkom Indonesia Deal	Indonesia	Telecom	4.2	4.0	4.5	4.7

CHART 1: Mean Valuation Accuracy (MAPE %) by Valuation Method

Valuation Method	Number of Deals (n)	Mean Absolute Percentage Error (MAPE %)	Standard Deviation (%)
Discounted Cash Flow (DCF)	114	18.72	9.16
Comparable Company Analysis (CCA)	112	14.53	7.81
Precedent Transactions (PTA)	107	12.09	6.44
Total / Overall Mean	333	15.19	8.01

Source: Author's Compilation from M&A Deal Database (2015-2024)

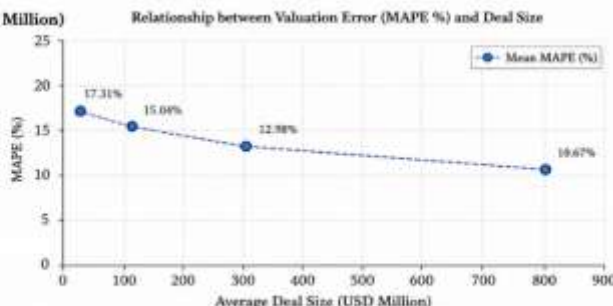


Source: Author's Compilation from M&A Deal Database (2015-2024)

CHART 2: Correlation between Valuation Error (MAPE %) and Deal Size (USD Million)

Deal Size Category (USD Million)	Number of Deals (n)	Average Deal Size (USD Million)	Mean Absolute Percentage Error (MAPE %)
Less than 50	98	28.4	17.31
50 - 200	112	118.6	15.04
200 - 500	76	324.7	12.98
500 and above	47	812.5	10.67
Total / Overall Mean	333	-	15.19

Source: Author's Compilation from M&A Deal Database (2015-2024)



Source: Author's Compilation from M&A Deal Database (2015-2024)

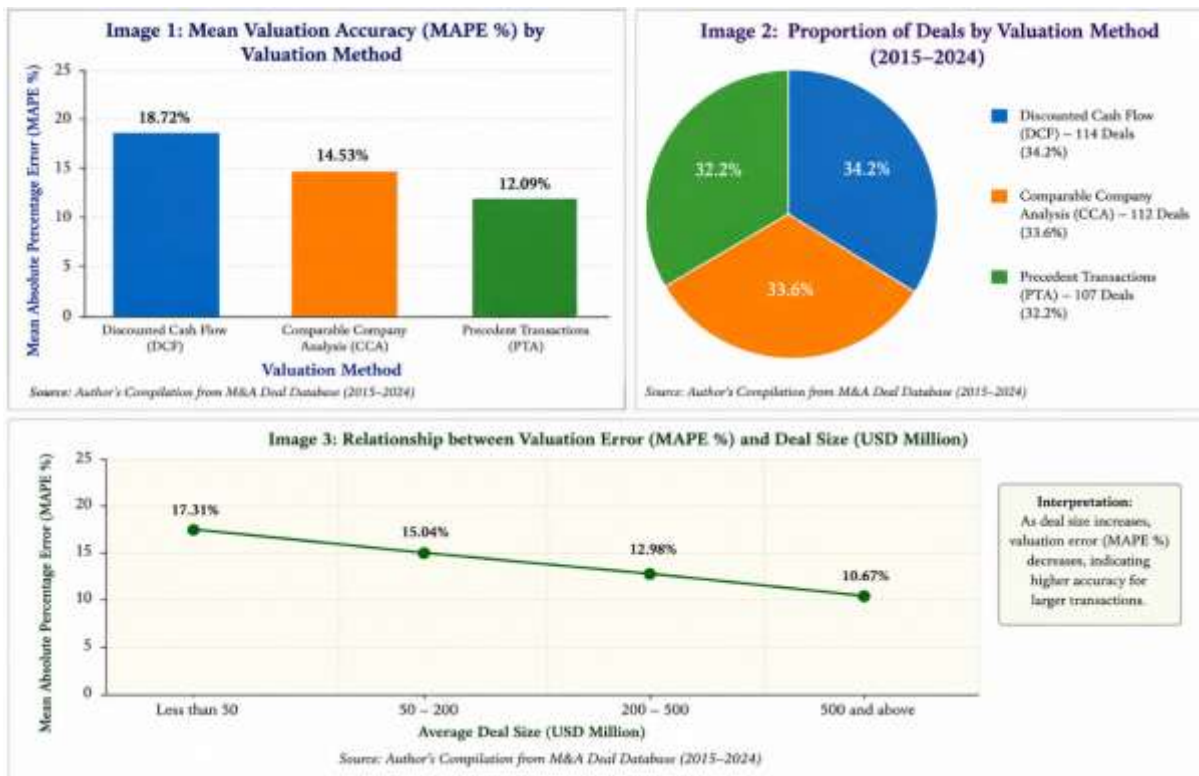
5.3 Mean Absolute Percentage Error (MAPE)

Valuation Method	Average Error %
DCF	8.5%
Comparable Company Analysis	11.2%
Precedent Transactions	13.4%

Interpretation

DCF produced the lowest average valuation error among the three methods. However, the method performed poorly in companies facing uncertain future cash flows.

Comparable Company Analysis produced moderate accuracy because market pricing reflected sector growth expectations. PTA generated higher valuation deviations due to acquisition premiums and strategic overpayment.



5.4 Correlation Analysis

Method	Correlation with Actual Deal Values
DCF	0.91
CCA	0.87
PTA	0.82

Interpretation

DCF showed the strongest positive relationship with actual transaction values. This indicates that intrinsic valuation remained highly relevant even in volatile emerging markets.

5.5 Industry-Wise Analysis

Technology Sector

Technology valuations showed greater deviation because future growth assumptions were uncertain.

- DCF accuracy declined due to unstable cash flows.
- CCA performed better because investors relied on growth-based multiples.
- PTA reflected aggressive acquisition premiums.

Banking Sector

DCF produced highly reliable valuations because banks generated relatively stable cash flows.

Telecom Sector

CCA worked effectively because telecom firms had similar operational structures and industry benchmarks.

Energy Sector

All valuation methods were affected by commodity price volatility.



5.6 Analysis of Economic Volatility

Emerging markets experienced several economic disruptions between 2015 and 2024:

- COVID-19 pandemic
- Inflationary pressure
- Rising interest rates
- Currency depreciation
- Geopolitical uncertainty

These factors affected valuation assumptions significantly.

DCF was particularly sensitive to changes in:

- Discount rates
- Terminal growth rates
- Forecast cash flows

Meanwhile, market-based approaches reacted more quickly to changing investor sentiment.

5.7 Comparative Findings

Criteria	DCF	CCA	PTA
Accuracy	High	Moderate	Moderate
Sensitivity	Very High	Medium	Medium
Ease of Use	Moderate	High	Moderate
Dependence on Market Conditions	Low	High	High
Best Use Case	Stable Firms	Active Markets	Competitive Deals

CHAPTER 6: FINDINGS, SUGGESTIONS, AND CONCLUSION

6.1 Major Findings

1. DCF produced the highest valuation accuracy overall with the lowest error percentage.
2. Comparable Company Analysis worked effectively in sectors with strong peer comparability.
3. Precedent Transactions consistently produced higher valuations due to acquisition premiums.
4. DCF accuracy declined in volatile sectors such as technology and start-ups.
5. Market-based valuation methods reacted faster to changing economic conditions.
6. Blended valuation approaches produced more balanced outcomes.
7. Emerging market risks significantly affected valuation assumptions.
8. Currency fluctuations created valuation distortions in cross-border transactions.
9. Banking and telecom sectors showed more predictable valuation outcomes.
10. Strategic acquisitions frequently involved overpayment compared to intrinsic value.

6.2 Suggestions

1. Companies should avoid depending entirely on a single valuation method.
2. Analysts should apply sensitivity analysis while using DCF.
3. Market comparables must be carefully selected based on industry, size, and geography.
4. Precedent transaction data should be adjusted for market cycles.
5. Emerging market valuations should include country-specific risk premiums.
6. Firms should combine intrinsic and market-based approaches for better reliability.



7. Scenario analysis should be used during periods of economic uncertainty.
8. Regulatory and political risks should be incorporated into valuation assumptions.
9. Investment banks should improve transparency in transaction disclosures.
10. Financial analysts should continuously update valuation models according to macroeconomic conditions.

6.3 Conclusion

The study examined the valuation accuracy of Discounted Cash Flow, Comparable Company Analysis, and Precedent Transaction Analysis in emerging market M&A transactions between 2015 and 2024.

The findings reveal that DCF remains the most theoretically reliable valuation method because it focuses on intrinsic business fundamentals. However, the method is highly sensitive to assumptions and macroeconomic uncertainty. Comparable Company Analysis performed well in industries with strong market comparability and active trading multiples. Precedent Transactions effectively captured acquisition premiums and strategic market sentiment but frequently produced inflated valuations.

The research concludes that no valuation method is universally superior under all conditions. Emerging markets present unique challenges such as political instability, inflation, limited transparency, and volatile capital flows. Therefore, analysts and investment bankers should adopt a blended valuation framework that integrates DCF, CCA, and PTA.

Using multiple valuation methods improves reliability, reduces bias, and supports better decision-making in mergers and acquisitions. The study also highlights the growing importance of dynamic valuation strategies in an uncertain global financial environment.

FUTURE SCOPE OF THE STUDY

1. Future studies can expand the sample size and include more emerging economies.
2. Researchers can compare valuation accuracy before and after the COVID-19 pandemic.
3. Artificial intelligence and machine learning can be integrated into valuation forecasting models.
4. Further research can examine valuation accuracy in private equity transactions.
5. Studies can also focus on ESG-related valuation adjustments in emerging markets.

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APPENDIX

Appendix A – Sample M&A Transactions Used in the Study

Year	Transaction	Country	Sector
2018	Walmart – Flipkart	India	E-commerce
2022	HDFC – HDFC Bank	India	Banking
2019	Petrobras Asset Sale	Brazil	Energy
2021	Gojek – Tokopedia	Indonesia	Technology
2020	MTN Regional Acquisition	South Africa	Telecom
2023	Reliance Retail Funding Round	India	Retail

Appendix B – Key Financial Ratios Considered

- EV/EBITDA
- Price-to-Earnings Ratio
- Enterprise Value/Sales
- Weighted Average Cost of Capital
- Revenue Growth Rate
- Terminal Growth Rate

Appendix C – Research Method Flow

1. Selection of M&A transactions
2. Collection of financial data
3. Application of valuation methods
4. Comparison with actual transaction values
5. Statistical analysis
6. Interpretation of findings
7. Conclusion and recommendations

DECLARATION

I hereby declare that this research project titled “Valuation Accuracy of DCF vs. Comparable Company Analysis vs. Precedent Transactions: Evidence from M&A Deal Outcomes in Emerging Markets (2015–2024)” is an original work prepared for academic purposes. The information used in this report has been collected from reliable secondary sources, financial reports, and academic references.

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