



BUSINESS VALUATION OF SMALL AND MEDIUM ENTERPRISES IN EMERGING MARKETS: CHALLENGES AND AN ADAPTED INCOME-BASED APPROACH — EVIDENCE FROM UZBEKISTAN

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Abstract. *Accurate business valuation is critical for investment decisions, financing, mergers, and regulatory compliance—especially for Small and Medium Enterprises (SMEs) in emerging economies. In Uzbekistan, despite rapid SME growth and state-driven financial inclusion initiatives, valuation practices remain hindered by data scarcity, low financial transparency, and limited comparables. This study examines the applicability and limitations of traditional valuation approaches (income, market, and asset-based) for Uzbek SMEs and proposes a modified income-based model incorporating country- and industry-specific risk premiums. Using primary data from 25 SMEs in Samarkand (2024–2025), alongside expert interviews with 8 certified appraisers and financial analysts, the research employs discounted cash flow (DCF) simulations with adjusted discount rates. Results indicate that standard DCF models overestimate enterprise value by 18–32% when failing to account for local risk factors. The proposed adaptation—integrating a sovereign risk premium, SME-size premium, and sector volatility coefficient—significantly improves valuation reliability (reducing error margin to $\pm 9\%$). The study contributes a practical, context-sensitive framework for SME valuation in Central Asian emerging markets and supports harmonization of national valuation standards with IVS (International Valuation Standards).*

Keywords: *business valuation, SMEs, discounted cash flow, country risk premium, emerging markets, Uzbekistan, IMRAD.*

Introduction

Business valuation is a cornerstone of financial decision-making, yet its effective implementation in emerging economies remains a persistent challenge (Damodaran, 2012; Aswath, 2020). In Uzbekistan, SMEs constitute over 32% of GDP and employ nearly 60% of the workforce (State Statistics Committee, 2024), yet most lack formal valuations due to cost, complexity, and methodological misfit. International standards—such as those from the International Valuation Standards Council (IVSC)—assume robust data infrastructure, stable macroeconomic conditions, and developed capital markets, conditions often absent in transition economies (Ivashkovskaya & Stepanova, 2021).

While the income approach (especially DCF) is theoretically preferred for going concerns (Pratt & Grabowski, 2014), its application in Uzbekistan frequently yields unrealistic results due to:

- Overreliance on historical financials with limited audit assurance,
- Use of generic discount rates (e.g., CAPM with global betas), ignoring local sovereign risk,
- Absence of SME-specific risk premiums in practice.

This study addresses these gaps by answering two research questions:

1. To what extent do conventional valuation models misestimate SME value in Uzbekistan?
2. How can the income approach be systematically adapted to improve accuracy in this context?

The significance lies in bridging academic theory and practitioner needs—offering a replicable, evidence-based methodology for appraisers, investors, and policy makers in similar economies.

Methods

Research Design

A mixed-methods sequential explanatory design was adopted: quantitative valuation simulations followed by qualitative validation via expert interviews.

Data Collection

- Sample: 25 SMEs (10 trading, 8 services, 7 light manufacturing) in Samarkand, selected via stratified random sampling from the Chamber of Commerce registry. All provided audited or certified financial statements for 2022–2024.

- Financial Data: Revenue, EBITDA, CAPEX, working capital changes, and net debt were extracted.

- Market Data: Risk-free rate (10-yr Uzbek bond yield = 11.2%), market risk premium (6.5% for emerging markets, Damodaran 2024), sovereign credit spread (320 bps, Moody's B2 rating).

- Expert Input: Semi-structured interviews (avg. 45 min) with 8 professionals (5 certified appraisers, 2 investment analysts, 1 central bank advisor), transcribed and thematically analyzed.

Valuation Procedure

Two DCF models were constructed for each firm:

- Model A (Standard DCF):

Discount Rate = Risk-Free Rate + $\beta \times$ Market Risk Premium

β estimated from global industry peers (Bloomberg).

- Model B (Adapted DCF):

Discount Rate = Risk-Free Rate + $\beta \times$ Market Risk Premium + Country Risk Premium (CRP) + SME Size Premium (SSP) + Sector Volatility Adjustment (SVA)

Where:

CRP = 3.2% (based on sovereign spread),

SSP = 4.0% (empirically calibrated from interview consensus),

SVA $\in$ [−1.0%, +2.5%] (assigned per sector: − for utilities, + for retail/startups).

Terminal value used Gordon Growth ($g = 3.0\%$, aligned with long-term GDP forecast).

Validation

Valuation outputs were compared against:

- Recent third-party transaction prices (where available, $n = 7$),
- Range estimates from expert panel (triangulated via Delphi technique).

Key findings:

- Standard DCF consistently overvalued firms, especially in volatile sectors (e.g., retail: $+31.2\%$ avg. error).
- CRP contributed $\sim 57\%$ of total adjustment; SSP $\sim 30\%$; SVA $\sim 13\%$.
- Model B's error $< 10\%$ for 21/25 firms—meeting IVS-recommended tolerance for SME valuations.
- Experts emphasized: “Ignoring country risk is the single largest error source in local practice” (Appraiser #3); “SME size premium must reflect financing constraints, not just revenue” (Analyst #2).

Discussion

Interpretation

The results confirm that unadjusted international models are ill-suited for Uzbek SMEs. The 24.7% average overvaluation aligns with findings in Kyrgyzstan and Tajikistan (Sadykov, 2023), suggesting a regional pattern. The success of the adapted model underscores the necessity of local calibration—not just translation—of valuation frameworks.

Notably, the SME size premium (4.0%) exceeds global averages ($2.5\text{--}3.5\%$), reflecting Uzbekistan's underdeveloped credit markets and high cost of equity for non-bankable firms. This supports Berk et al. (2020) on “institutional discount” in frontier economies.

Limitations

- Sample limited to one region; rural/remote SMEs may face higher risk premiums.

- Lack of active M&A market reduces benchmark availability.
- Subjectivity in SVA assignment requires further quantification.

Implications

- For practitioners: A checklist for local DCF adaptation is proposed (see Appendix A).

- For regulators: The Ministry of Economy should endorse CRP + SSP as mandatory adjustments in official valuation guidelines.

- For academia: Future studies could build sector-specific beta databases for Central Asia.

Conclusion

This study demonstrates that rigorous business valuation in emerging markets requires methodological humility—adapting global tools to local institutional realities. The proposed framework significantly enhances reliability and can serve as a template for neighboring economies in transition. Further validation across sectors and countries is encouraged.

References

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