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ANALYSIS OF INTRINSIC VALUE AND DEBT SERVICING CAPACITY USING THE DISCOUNTED CASH FLOW (DCF) METHOD: A CASE STUDY OF A REAL ESTATE FIRM"

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ABSTRACT

This study focuses on analyzing the intrinsic value and debt servicing capacity of Mantri Development Pvt Ltd using the Discounted Cash Flow (DCF) method. In today's financial environment, evaluating the true worth of a company is essential for making informed investment and financial decisions. The DCF method is widely used as it estimates the value of a firm based on its future cash flow generating ability and the time value of money.

The primary objective of this study is to determine the intrinsic value of the company and assess its ability to meet its debt obligations. The analysis is based on financial data, projected cash flows, and key financial indicators such as profitability, capital structure, and cost of capital. Free Cash Flow to Firm (FCFF) is projected for a period of five years and discounted using the Weighted Average Cost of Capital (WACC) to estimate the enterprise value. The findings of the study indicate that the company demonstrates strong operational efficiency and consistent cash flow generation. However, it is highly dependent on debt financing, which increases financial risk. Although the enterprise value of the company is significant, a large portion of it is absorbed by debt, resulting in a relatively low equity value. The intrinsic value per share is found to be minimal, indicating limited returns for shareholders.

The study also highlights that the company's valuation is highly sensitive to key assumptions such as growth rate and discount rate. Furthermore, the debt servicing capacity analysis suggests that while the company can meet its interest obligations, it may face challenges in repaying principal amounts due to high leverage.

In conclusion, the study emphasizes the importance of balancing profitability with financial stability. It suggests that effective debt management and a well-structured capital framework are essential for improving shareholder value and ensuring long-term sustainability. This research provides valuable insights into the application of the DCF method and its relevance in evaluating both valuation and financial risk.

KEYWORDS: Intrinsic Value, Discounted Cash Flow, Debt Servicing Capacity, Free Cash Flow, Real Estate Sector, Financial Analysis, Capital Structure, Valuation.

1. INTRODUCTION

In the modern financial landscape, evaluating a company's true worth has gained significant importance. Traditional accounting measures such as net profit or book value often reflect historical performance and fail to capture future potential. Consequently, advanced valuation techniques like the Discounted Cash Flow (DCF) method have become indispensable tools for assessing intrinsic value the fundamental worth of a firm based on its financial performance, growth prospects, and risk profile.

The DCF method estimates firm value as the present value of projected Free Cash Flow to the Firm (FCFF), discounted at the Weighted Average Cost of Capital (WACC). This forward-looking approach provides a comprehensive view of financial health that market-based measures alone cannot offer.

This study applies the DCF framework to a real estate development firm a sector characterized by high capital requirements, long project cycles, and substantial dependence on debt financing. In such capital-intensive environments, profitability alone is insufficient to determine financial stability. A firm may report strong earnings yet face liquidity stress if cash flows are inadequate to service debt obligations. Accordingly, this study integrates intrinsic valuation with an assessment of debt servicing capacity, offering a more holistic view of the firm's financial position.

2. LITERATURE REVIEW

Damodaran, A. (2012)

Damodaran (2012) provided a comprehensive framework for valuation using the Discounted Cash Flow (DCF) method. The study emphasized that intrinsic value is determined by estimating future cash flows and discounting them to present value using an appropriate rate.

Koller, T., Goedhart, M., & Wessels, D. (2015).

Koller et al. (2015) examined valuation techniques with a focus on DCF analysis. The study highlighted that intrinsic value depends on cash flow generation and capital structure. It emphasized that firms with stable cash flows have better debt servicing capacity

Penman, S. H. (2013)

Penman (2013) analyzed financial statements to determine intrinsic value. The study emphasized the role of earnings and cash flows in valuation. It highlighted that DCF analysis provides a clear picture of a company's ability to generate cash and repay obligations.

Copeland T (2000)

Copeland et al. (2000) focused on value creation through DCF techniques. The study found that companies with strong cash flow management have higher intrinsic value.

It emphasized that DCF helps in evaluating long-term profitability and debt repayment capacity.

Brealey R. A. (2011)

Brealey (2011) discussed corporate finance principles related to valuation. The study highlighted that DCF is fundamental in assessing investment opportunities. It emphasized that firms must generate sufficient cash flows to service debt. The research concluded that intrinsic value analysis supports effective financial management.

Fama E. F. (1970)

Fama (1970) discussed market efficiency and valuation. The study highlighted that intrinsic value estimation helps investors make informed decisions. It emphasized that DCF analysis plays a role in identifying undervalued stocks.

Graham B. & Dodd D. (2009)

Graham and Dodd (2009) focused on intrinsic value analysis. The study emphasized that valuation should be based on fundamental factors such as earnings and cash flows. It concluded that DCF is an effective method for long-term valuation.

Damodaran A. (2006)

Damodaran (2006) explained advanced valuation techniques. The study highlighted the importance of discount rates and growth assumptions. It concluded that DCF provides a detailed understanding of intrinsic value and debt capacity

Myers, S. C. (1974)

Myers (1974) explored the relationship between financing decisions and investment valuation. The study highlighted that a firm's value depends on its ability to generate consistent cash flows. It emphasized that debt servicing capacity is directly linked to operational performance. The research concluded that DCF is useful in evaluating long-term financial sustainability and investment decisions.

Edward I. Altman (1968)

He made a significant contribution by developing financial ratio models to predict corporate bankruptcy. His study highlighted that companies with weak financial performance and poor cash flow management are more likely to face difficulties in servicing debt. The research emphasized the importance of early identification of financial distress and suggested that valuation techniques such as Discounted Cash Flow (DCF) can support better financial planning.

RESEARCH GAP:

From the existing literature, it is clear that many studies have used the Discounted Cash Flow (DCF) method to estimate the intrinsic value of companies. These studies show that DCF is a strong and widely accepted method as it focuses on future cash flows rather than past performance. However, most of the research is mainly limited to valuation, such as stock pricing and investment decisions.

Very few studies have connected intrinsic value with a company's ability to service its debt. This gap is more noticeable in the real estate sector, where companies often face irregular and uncertain cash flows. In reality, such fluctuations make it difficult to assess whether a company can meet its financial obligations, but this aspect is not sufficiently covered in existing studies.

There is limited research on company specific cases, especially for privately held firms, where debt levels and project based cash flows play a major role in financial decisions.

3. OBJECTIVES OF THE STUDY

- To estimate the intrinsic value of the company using the Discounted Cash Flow (DCF) method
- To analyze the future cash flow projections of the company.
- To evaluate the company's ability to service its debt obligations.

- To assess the overall financial health and sustainability of the company.
- To provide insights for better financial and strategic decision-making.

4. RESEARCH METHODOLOGY

A. Research Design

A descriptive research design was adopted.

B. Type of Data

- Primarily based on **secondary data**
- Sources include financial statements, industry reports, and academic literature

C. Data Collection

Secondary Data: Annual reports, online sources.

D. Data Processing

- Data organized into revenue, expenses, and cash flows
- Validation and standardization of financial figures
- Calculation of key variables such as FCFF, growth rate, and WACC.

E. Tools Used

- DCF Method – Estimates intrinsic value
- FCFF Analysis – Measures cash flow generation
- WACC – Used as discount rate
- Terminal Value – Calculates long-term value
- Ratio Analysis – Evaluates financial performance
- Trend Analysis – Identifies growth patterns
- Sensitivity Analysis – Tests key assumptions
- MS Excel – Used for calculations & modeling

5. DATA ANALYSIS AND INTERPRETATION

This project presents a comprehensive financial analysis using the Discounted Cash Flow (DCF) approach. The objective is to estimate the firm's intrinsic value and assess its ability to service debt based on projected cash flows. The analysis integrates income statement evaluation, free cash flow projections, cost of capital estimation, valuation techniques, and debt servicing capacity assessment to provide a holistic financial perspective.

5.1 Income Statement Analysis

1. Analysis

The income statement indicates a decline in revenue from ₹18,573 lakh in FY24 to ₹14,267 lakh in FY25, reflecting a contraction of approximately 23%. Despite this decline, the company maintains exceptionally high EBITDA margins, increasing from 88% to 97%. Operating expenses have reduced significantly, contributing to improved operating efficiency. However, interest expenses remain substantially high, exceeding operating profits in both years.

2. Interpretation

The decline in revenue suggests potential challenges such as reduced project sales or delayed execution, which are common in the real estate sector. The improvement in EBITDA margin indicates strong cost control and operational efficiency. However, the high interest burden signals excessive reliance on debt financing, which absorbs a large portion of operating income.

3. Inference

While operational efficiency appears strong, the company's financial health is constrained by high interest obligations. This creates a situation where profitability does not fully translate into net earnings, highlighting the need for restructuring the capital structure.

5.1.2 Free Cash Flow Analysis

1. Analysis

Projected Free Cash Flow to Firm (FCFF) shows a steady increase from ₹11,094 lakh in FY26 to ₹13,213 lakh in FY30. Revenue growth is moderate but consistent, supported by stable EBITDA margins of 97%

2. Interpretation

The upward trend in FCFF indicates that the company is expected to generate stable and predictable cash flows in the future. This reflects efficient operations and a relatively stable business model despite industry volatility.

3. Inference

Although cash flows are growing, the pace of growth is moderate relative to the company's debt burden. This suggests that while operational sustainability is achievable, debt servicing

may continue to exert financial pressure unless managed effectively.

5.1.3 Profitability Analysis

1. Analysis

The company maintains exceptionally high EBITDA margins, with a consistent upward trend in EBITDA, EBIT, and NOPAT over the projection period.

2. Interpretation

High margins indicate strong operational efficiency and effective cost management. The consistent growth in profitability metrics suggests that the company's core business remains fundamentally strong.

3. Inference

Strong profitability enhances the company's long-term viability. However, profitability alone is insufficient in a highly leveraged firm, as cash flows must be adequate to meet financial obligations.

5.1.4 WACC Analysis (Cost of Capital)

1. Analysis

The company's Weighted Average Cost of Capital (WACC) is calculated at 8.89%, with a capital structure heavily skewed towards debt (91% debt and 9% equity). The cost of equity is 10.9%, while the after-tax cost of debt is 12.43%.

2. Interpretation

The relatively moderate WACC indicates that the overall cost of financing is manageable. However, the disproportionately high reliance on debt increases financial risk and exposes the company to interest rate fluctuations.

3. Inference

The firm's capital structure is highly leveraged, which amplifies financial risk. While debt financing may enhance returns during favorable conditions, it significantly increases vulnerability during downturns.

5.1.5 Terminal Value Analysis

1. Analysis

The terminal value is estimated at ₹195,608.53 lakh using a growth rate of 2%. This

constitutes a significant portion of the total valuation.

2. Interpretation

A large contribution from terminal value suggests that the company's valuation is heavily dependent on long-term growth assumptions rather than near-term performance.

3. Inference

The valuation is sensitive to assumptions regarding growth rates. Any variation in long-term growth expectations could significantly impact the overall valuation, indicating inherent uncertainty.

5.1.6 Present Value of Cash Flows

1. Analysis

The total present value of projected cash flows (FY26–FY30) is ₹47,813.04 lakh, while the present value of terminal value is ₹127,776.06 lakh.

2. Interpretation

A substantial portion of the total valuation is derived from terminal value rather than near-term cash flows, highlighting reliance on future expectations.

3. Inference

The company's current financial strength is moderate, and its valuation is largely driven by anticipated future performance. This increases the risk associated with valuation accuracy.

5.1.7 Enterprise Value and Equity Value

1. Analysis

The enterprise value is estimated at ₹175,589 lakh. After deducting total debt of ₹155,384 lakh and adding cash reserves, the equity value is reduced to ₹20,809 lakh. The implied intrinsic value per share is approximately ₹1.

2. Interpretation

The significant gap between enterprise value and equity value indicates that a major portion of the firm's value is allocated to debt holders rather than equity investors.

3. Inference

High leverage erodes shareholder value, making the company less attractive to investors. This

underscores the importance of reducing debt to enhance equity value.

5.1.8 Debt Servicing Capacity Analysis

1. Analysis

FCFF shows steady growth; however, when compared to total debt, the coverage remains relatively low. The implied Debt Service Coverage Ratio (DSCR) appears moderate.

2. Interpretation

The company is capable of meeting interest obligations due to stable cash flows, but principal repayment remains a concern due to the magnitude of debt.

3. Inference

The firm operates under financial pressure, with moderate debt servicing capacity. Long-term sustainability depends on improving liquidity and reducing leverage**.**

5.1.9 Sensitivity Analysis

1. Analysis

The valuation is tested against variations in WACC (8.4%–11.9%) and growth rates (1%–5%). Results show significant fluctuations in valuation outcomes.

2. Interpretation

Even small changes in discount rate or growth assumptions lead to substantial variations in valuation, indicating high sensitivity.

3. Inference

The DCF model is highly assumption-driven, and its reliability depends on the accuracy of input variables. This highlights the importance of cautious forecasting.

5.2 RESULTS AND FINDINGS

* The company demonstrates strong operational efficiency with high profitability margins.
* Free cash flows are stable and growing, indicating operational sustainability.
* The firm is highly leveraged, with debt forming the majority of its capital structure.
* Interest obligations significantly reduce net profitability.
* The enterprise value is strong, but equity value is considerably low due to high debt.
* The intrinsic value per share is minimal, reflecting limited returns to shareholders.
* Debt servicing capacity is moderate, with potential challenges in principal repayment.

* The valuation is highly sensitive to key assumptions, increasing uncertainty.

Overall Conclusion

The analysis reveals the possesses strong operational capabilities and stable cash flow generation, its excessive reliance on debt significantly weakens its financial position. The high leverage reduces equity value and increases financial risk, limiting the benefits to shareholders.

For long-term sustainability, the company must prioritize debt restructuring, improved cash flow management, and capital structure optimization. Addressing these issues will enhance both intrinsic value and financial stability, making the firm more attractive to investors.

6. FINDINGS

7. The analysis using the Discounted Cash Flow (DCF) method provides a comprehensive understanding of the company's financial position and valuation.
8. The company demonstrates strong operational efficiency, reflected in consistently high EBITDA margins.
9. Despite a decline in revenue between FY24 and FY25, effective cost control has helped maintain profitability.
10. The projected Free Cash Flow to Firm (FCFF) shows a steady and gradual increase from FY26 to FY30.
11. The company is capable of generating stable and consistent cash flows from its operations.
12. A major concern is the company's heavy reliance on debt financing, with approximately 91% of its capital structure funded through debt.
13. High leverage significantly increases financial risk and places pressure on cash flows for debt servicing.
14. Although the enterprise value is high, a large portion is absorbed by debt, resulting in a relatively low equity value.
15. The intrinsic value per share is estimated at around ₹1, indicating minimal returns for equity shareholders.
16. The valuation is highly sensitive to key assumptions such as WACC and terminal growth rate.
17. Overall, the company has strong operational potential but faces financial constraints due to its highly leveraged capital structure.

7. SUGGESTIONS

Based on the findings of the study, the following recommendations are suggested to improve the financial health and valuation of the company:

- Debt Reduction: The company should focus on reducing its debt burden through structured repayment strategies or refinancing high-cost loans. Lower debt levels will reduce financial risk and improve equity value.
- Capital Structure Optimization: Increasing the proportion of equity financing can help balance the capital structure and reduce dependency on borrowed funds.
- Improvement in Cash Flow Management: Efficient management of cash flows is essential to ensure timely servicing of debt and to support future growth.
- Cost Efficiency Measures: Although the company already maintains high margins, further optimization of operating costs can enhance profitability.
- Strategic Growth Planning: The company should adopt a sustainable growth strategy, focusing on realistic revenue projections and controlled expansion.
- Asset Monetization: Selling non-core assets can generate additional cash to reduce debt and improve liquidity.
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- Cost Efficiency Measures: Although the company already maintains high margins, further optimization of operating costs can enhance profitability.
- Strategic Growth Planning: The company should adopt a sustainable growth strategy, focusing on realistic revenue projections and controlled expansion.
- Asset Monetization: Selling non-core assets can generate additional cash to reduce debt and improve liquidity.

8. CONCLUSION

This project exhibits strong operational efficiency, reflected in its high profitability margins and the ability to generate stable and consistent cash flows from its core business operations. These strengths indicate a fundamentally sound business model with good revenue-generating capacity. However, the company's financial position is significantly constrained by its heavy reliance on debt financing, resulting in a highly leveraged capital structure.

A considerable portion of its operating income is absorbed by interest and principal repayments, which restricts the availability of funds for expansion, innovation, and shareholder returns. As a result, even though the enterprise value appears substantial, the equity value remains comparatively low, leading to a minimal intrinsic value per share and limited wealth creation for equity investors. This imbalance highlights a key concern, as the benefits of strong operational performance are overshadowed by financial obligations. Furthermore, the high dependence on borrowed funds exposes the company to elevated financial risk, particularly in the face of interest rate fluctuations or economic downturns.

In the long run, the sustainability and growth prospects of the company will largely depend on its ability to manage and reduce its debt burden through strategic financial restructuring. Strengthening the capital structure, optimizing the debt-equity mix, and improving financial flexibility are therefore crucial steps to enhance shareholder value, reduce risk, and restore investor confidence.

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