



Financial Forecasting & Prediction of Financial Distress

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How to Cite this Article:

R, M. (2026). Financial Forecasting & Prediction of Financial Distress. International Journal of Creative and Open Research in Engineering and Management, <i>02</i>(05).
<https://doi.org/10.55041/ijcope.v2i5.329>

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ABSTRACT

Financial Forecasting and the Prediction of Financial Distress are critical pillars of modern Corporate finance, enabling firms to anticipate future outcomes, safeguard liquidity, and Ensure long-term sustainability. Forecasting provides structured insights into revenues Expenses, cash flows, and profitability, guiding managerial decisions, investment strategies And resources allocation. Distress prediction, on the other hand, identifies early warning Signals of Potential insolvency through models such as Altman's Z-score, Ohlson's O-score And advanced machine learning techniques. Together, these practical's form comprehensive Framework for financial health management, balancing opportunity with risk. This project explores the integration of forecasting and distress prediction, highlighting them Growing relevance in an era of globalization, technological disruption, and volatile Economic Cycles. It examines traditional statistical approaches alongside modern machine learning and

Ensemble methods, emphasizing their role in improving predictive accuracy and resilience. The study also considers ethical challenges such as transparency and fairness in predictive Models. Ultimately, the project underscores that financial forecasting and distress prediction are not Merely technical exercises but strategic imperatives. They safeguard firms against Uncertainty, support investors and regulators, and contribute to the robustness of the financial System. By bridging theory and practice, this study offers insights into the dynamics of financial health and resilience in an ever-changing global economy.

KEYWORD: Financial Forecasting, Financial Distress Prediction, Corporate Finance, Liquidity Management, Sustainability, Altman's Z-Score, Ohlson's O-Score.



INTRODUCTION

Financial Forecasting and the prediction of financial distress are cornerstone activities In modern corporate finance, essential for ensuring long term sustainability, liquidity, and Strategic growth, financial forecasting involves projecting a company's future financial Performance, including revenues, expenses, cash flows, and capital requirements, by Analyzing historical data, industry trends, and market conditions. When coupled with Predictive models, these projections serve as an early warning system to anticipate and Mitigate the serve consequences of financial distress, which occurs when a company fails to Meet its fixed financial obligations, such as interest payments or debt maturities. Financial Forecasting is essential to prevent a company from flying blind, providing structured insights That guides budgeting, investment strategies, and resource allocation. Techniques range from Simple straight-line projections, which assume a consistent growth rate, to complex moving Averages and multiple linear regression, which are better suited for volatile environments Financials forecasting and the prediction of financial distress represent two of the most Critical areas in modern, finance combining analytical rigor, statically modelling, and Strategic foresight to safeguard organizations against uncertainty and to guide them toward Sustainable growth. Financial forecasting is essentially the process of estimating future Financial outcomes based on historical data, current market conditions, and anticipated Changes in the economic environment It encompasses projection of revenues, expenses Cash flows and profitability serving as a roadmap for decision makers to allocate resources Plan investments and manage risks. Accurate forecasting is indispensable because it enables Firm to anticipate challenges, seize opportunities, thereby ensuring Operational stability.

OBJECTIVES OF THE STUDY

- Financial Forecasting enables organizations to anticipate future performance and Plan strategies effectively.
- Methods such as trend analysis, regression analysis, and time series models help Project revenues, costs, and profitability with accuracy.
- Key indicators like profitability, liquidity, and solvency ratios provide insights into operational efficiency and financial health.
- Tools like Altman's Z-score and statistical models predicts bankruptcy risk by Analyzing leverage, earnings, and liquidity.
- Tracking debt levels, interest coverage, and working capital management strengthens the ability to detect vulnerabilities.
- Regular evaluation of forecasting models ensures predictions remain reliable and adaptable to changing market conditions.7. Accurate forecasts support risk management, resource allocation, investor Confidence and long-term sustainability through proactive planning.



REVIEW OF LITERATURE

1987

The analysis and use of financial ratios a review article journal of Business Finance & Accounting. This article reviews how financial ratios are used to evaluate a firm's Performance, liquidity, and risk, as well as to predict future outcomes like profitability or failure. It explains that ratios help in comparing firms of different sizes and against industry standards, but their effectiveness depends on proper assumptions and statistical Properties.

2022

The role of capital expenditure forecasts in debt contracting University of Texas Dallas & University of Hong Kong. This paper examines how firms use capital expenditure forecasts In debt contracting. It finds that companies with higher debt levels and lower credit quality are more likely to issue these forecasts to signal commitment and reduce conflicts lenders.

RESEARCH METHODOLOGY:

The Research methodology for studying financial forecasting and the prediction of financial distress is designed to integrate quantitative rigour with contextual analysis to ensure reliable outcomes .This study adopts a descriptive and analytical research design ,where descriptive elements highlight existing theories and practices in forecasting ,while analytical techniques test the relationship between financial indicators ,forecasting models ,and distress outcomes.



ANALYSIS & INTERPRETATION:

1. WORKING CAPITAL

RS. IN LAKHS							
2019-2020	1.12	878.89	23,409.92	10,779.18	3,068.01	22,640	12,553.94
2020-2021	1.46	3,895.33	26,554.56	12,379.48	3,419.61	22,845	14,098.29
2021-2022	1.74	6,427.30	28,904.78	15,368.68	5,228.73	32,140	13,459.30
2022-2023	1.52	5,270.53	33,239.76	19,496.53	7,834.16	37,976	13,665.57
2023-2024	1.92	7,236.91	35,398.35	22,563.42	6,491.12	39,965	12,758.12
2024-2025	1.43	5,092.60	38,951.81	23,828.70	4,001.16	35,806	15,046.31
						1,91,372/6	
					Average sales	31,895	

**FORMULA:**

Working Capital = Current Asset – Current Liabilities Working Capital

Ratio = Current Asset / Current Liabilities Total Asset = Non current Asset

+ Current Asset

Retained Earning = Reserve & Surplus

EBIT = Profit Before Tax + Finance Cost (Interest)

Equity Market Value = Share Price * No of Shares (No market value from BS SO nil) Total Liabilities =

Non current Liabilities + Current Liabilities

Sales = Revenue From Operations.

INTERPRETATION:

The financial performance across the six year period reflects a story of expansion ,resilience ,and evolving challenges .Sales have grown steadily ,averaging a healthy figure that demonstrates consistent demand and operational strength . Assets have increased year after year showing the company's ability to reinvest and expand its base, while retained earning shighlight a strong equity position and the capacity to sustain growth .Earnings before interest and tax reveal periods of robust profitability ,particularly in the middle years ,though the later decline suggests rising costs or inefficiencies that need attention .

MOVING AVERAGE =(3 Year Moving Average) Formula

Moving Average = 3 consecutive year / 3

Period	calculation	Moving average
Y1–Y3	(22640 + 22845 + 32140)/3	25,875
Y2–Y4	(22845 + 32140 + 37976)/3	30,987
Y3–Y5	(32140 + 37976 + 39965)/3	36,694
Y4–Y6	(37976 + 39965 + 35806)/3	37,916



INTERPRETATION:

The moving average method provides a clear way to smooth out fluctuations in sales data and highlight underlying trends. By taking the average of three consecutive years, the calculations reduce the impact of short-term variations and offer a more stable view of performance. In this case, the averages show a steady upward movement, reflecting consistent growth in sales across the years. The early periods indicate moderate expansion, while later periods capture stronger momentum, suggesting that the company was able to build on its base and achieve higher levels of revenue. The final average points to a slight slowdown compared to the peak, but overall, the trend remains positive and resilient. This approach is particularly useful for forecasting, as it balances past performance with recent developments, giving a realistic estimate of future sales. It also helps management identify whether growth is sustainable or if corrective measures are needed to maintain momentum. In essence, the moving average highlights the company's ability to grow steadily while smoothing out irregularities, offering a practical tool for planning and decision-making.

PROFIT FORECAST METHODS:

NET PROFIT FORECAST FOR 2026 FROM THE BELOW DATA USING METHOD

YEAR	Profit
2020	1,716
2021	2,138
2022	3,450
2023	5,203
2024	4,296
2025	2,340



SOLUTION:

NAÏVE METHOD (NM)

YEAR	Profit	Forecasted Profit
2020	1,716	-
2021	2,138	1,716
2022	3,450	2,138
2023	5,203	3,450
2024	4,296	5,203
2025	2,340	4,296
Forecast for 2026		2,340

INTERPRETATION:

The naïve method of profit forecasting is a straightforward approach where each year's forecast is simply the actual profit of the previous year. This simplicity makes it easy to apply but limits its accuracy, as it does not account for growth patterns, volatility, or external influences. Forecasts tend to align during stable periods but lag behind when profits rise sharply, showing underestimation during expansion phases. Conversely, when profits decline the method overshoots, predicting higher values than realized, which highlights its inability to adjust to downturns.

DISCUSSION

It has demonstrated a strong growth trajectory over much of the six years, with sales and profitability has been rising steadily until recent fluctuations. The company's operational efficiency improved through disciplined expense management and growing reserves, which supported expansion and stability. However, the latest year revealed challenges, as rising costs and repayment obligations weighed on performance, leading to a decline in both sales and net profit. Forecasting methods present a mixed outlook: while some approaches highlight continued momentum; others reflect caution due to the recent downturn. This Divergence underscores the importance of strategic planning and financial discipline. The company's resilience and ability to adapt will be critical in sustaining long-term success. By focusing on cost control, strengthening reserves, and aligning growth strategies with Market conditions can balance optimism with prudence. Overall, the analysis suggests that while the foundation for growth remains strong, the recent instability signals the need for sharper financial management and proactive measures to ensure consistent performance in the years ahead. It has shown a promising growth journey over the years, marked by steady expansion in sales and profitability until recent fluctuations. The company strengthened its operational efficiency through disciplined expense management and the accumulation of reserves,



which provided a solid foundation for growth .However ,the latest period revealed challenges, as rising costs and repayment obligations placed pressure on overall performance, leading to decline in both sales and net profit .Forecasting methods present a mixed picture. While some highlight continued momentum, others reflect caution due to the recent downturn this divergence emphasizes the importance of balancing optimism with Prudence. The company's resilience and adaptability will be crucial in sustaining long term success. By focusing on cost control, reinforcing reserves, and aligning strategies with evolving market conditions , and navigate instability while maintaining growth potential. Overall ,the analysis suggests that the company remains well positioned for future opportunities , but recent instability signals the need for sharper financial management and proactive planning to ensure consistent performance and stability in the years ahead.

ANALYSIS

ADVANCE EXCEL TOOLS

The financial performance over the six -year period presents a story of steady expansion followed by signs of moderation and emerging pressure in the most recent year .Revenue from operations shows a clear upward trajectory from the initial year through the middle of the period ,rising from a relatively modest base to a peak before experiencing a noticeable decline in the final year .This pattern suggests that the company was able to capitalize on growth opportunities ,expand its market presence ,and improve sales efficiency up to a certain point .

FINDINGS

- The company experienced strong expansion in sales, profitability and assets, driven by demand growth and operational efficiency, before showing signs of slowdown.
- Net profit and EBIT improved steadily for a period, but later declines suggest rising costs, financial burdens, or inefficiencies that weaken sustainability.
- Total assets and retained earnings continued to grow, reflecting effective reinvestment and a solid equity base that supports long-term stability.
- Working capital ratios stayed above 1, yet the downward trend signals mounting short-term financial pressure and weaker liquidity management.
- Equity reserves strengthened the capital base, but fluctuations in borrowings, especially short-term obligations, indicate shifting financing strategies and added risk.
- Operating cash flows remained positive, confirming strong core operations, while persistent investing outflows and financial strategy.
- Forecasts suggest stable sales with moderate growth potential, but profit projections are less reliable, showing vulnerability to cost fluctuations and external market factors.



CONCLUSION

Financial forecasting provides valuable baseline estimates, though accuracy differs between sales and profit predictions. Sales forecasting methods such as Moving Average and weighted Moving Average deliver more stable and realistic outcomes compared to simpler techniques, while the exponential moving average offers moderate responsiveness but depends heavily on the smoothing factor. Accuracy measures confirm that sales forecasts are reasonably reliable, with acceptable bias and strong performance compared to random models, whereas profit forecasting remains less accurate due to cost fluctuations and external uncertainties. The evolution from neural network capabilities to ensemble learning has significantly improved predictive systems for financial distress.

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