

RISK MANAGEMENT TECHNIQUES IN CAPITAL MARKETS AT ZEN MONEY

^{#1}Kothapalli Swapna, *Dept of MBA,*

^{#2}Mr. Manmohan Tiwari, *Assistant Professor, Dept of MBA,*

Priyadarshini Institute of Science and Technology For Women, Khammam, TG.

ABSTRACT: Risk management is essential for the long-term performance and stability of the capital market, which is characterized by market volatility, regulatory changes, and altering investor behavior. This paper examines the risk management strategies implemented by Zen Money to identify, quantify, and mitigate a variety of risks associated with their capital market operations. This paper analyzes Zen Money's approach to managing market, credit, liquidity, and operational risk, among other factors. The organization implements both conventional and innovative risk management strategies. In order to mitigate adverse risk and safeguard portfolio value, the investigation underscores the significance of asset allocation strategies, diversification, stop-loss procedures, and derivative instruments like options and futures. In addition, we assess the effectiveness of quantitative methods for risk assessment and decision-making, including scenario analysis, stress testing, and Value at Risk (VaR). Zen Money reinforces its risk management approach through regulatory compliance, internal controls, and technology-driven analytics.

Keywords: *Risk Management, Capital Market Operations, Market Risk, Credit Risk, Liquidity Risk, Operational Risk, Diversification, Asset Allocation, Stop-Loss Mechanism,*

1. INTRODUCTION

Risk management, which encompasses the assessment and mitigation of trading-related hazards, is essential for capital markets. The objectives of risk management are to reduce losses and increase earnings. This involves anticipating potential hazards and taking the necessary measures to mitigate or prevent their effects. Upon completion of a course, obtaining a certification in investment banking provides access to lucrative employment opportunities. This blog will address the numerous facets of capital market risk management and the most prevalent risk management strategies.

Modern corporations operating in an unpredictable environment face a significant challenge in navigating the ever-changing financial markets, particularly in the context of market risk. Operations, cash flow, investments, and the capacity to remain in business can be disrupted by natural disasters, geopolitical unrest, or abrupt changes in the capital markets. Organizations that intend to endure severe market disasters must implement capital market risk management strategies. Businesses are at risk of financial instability when they lack a well-defined risk mitigation strategy. This could potentially impede their ability to expand and maintain their stability, given the capital markets' reputation for instability and competition.

Knowing how to invest in the stock market may be a challenging task. Prices may fluctuate as a result of fluctuations in investor sentiment, global events, or corporate news.

Determining the subsequent events is not always straightforward. Risk management is advantageous in this scenario.

This is not guaranteed by risk management, as it is impossible to completely eliminate all potential hazards. Rather, it provides a strategy for resolving issues in a thoughtful manner. In my opinion, it is akin to possessing a safety net that allows one to remain afloat during periods of market volatility.

2. LITERATURE SURVEY

Heß, V.L. (2025): This 2025 46 current studies on the applications of machine learning (ML) in banking and capital-markets risk management are mapped in this comprehensive paper from 2025. It categorizes ML use cases into supervisory analytics, credit scoring, fraud detection, market risk forecasting, and model validation. The paper emphasizes opportunities to enhance performance, including faster signal detection and enhanced prediction accuracy, as well as issues with data governance, model risk, and explainability.

Darmansyah, A., Ali, Q., & Parveen, S. (2025): This research examines the real world and demonstrates that companies of all sizes can gain from improved financial performance and risk management by implementing advanced capital budgeting strategies. Using panel data and the Generalized Method of Moments (GMM) to analyze Indonesian enterprises from 2014 to 2023, the authors evaluate the impact of budgeting strategies on risk optimization, liquidity, and solvency. The data indicates that intelligent budgeting enhances financial outcomes and mitigates a variety of risks.

Liyang Wang, Yu Cheng, Xingxin Gu & Zhizhong Wu (2024): This investigation introduces a four-layer architecture for financial market risk monitoring that integrates machine learning and big data. The capacity to detect and predict hazards in real time is enhanced by strategies such as Random Forest and LSTM networks. Using this approach, it is possible to more precisely anticipate market crashes and volatility spikes. This research develops dependable risk monitoring tools that complement conventional models, including VaR (Value at Risk), by integrating advanced machine learning algorithms with big data analytics.

Yupeng Cao et al. (2024): RiskLabs introduces a revolutionary methodology for predicting financial risk in the context of multimodal data, such as text, speech, and time series, through the use of LLMs (Large Language Models). This strategy enhances comprehensive risk forecasting by incorporating market data, news events, and earnings call transcripts. This method demonstrates that risk assessment can be improved by utilizing AI-driven language models, rather than relying solely on numerical models, to improve the prediction of volatility and variance in financial markets. By integrating qualitative and quantitative data, this investigation presents novel opportunities for risk analytics.

Kelly, B. & Xiu, D. (2023): This 2023 survey is a comprehensive overview of the current state of financial machine learning in relation to market and portfolio risk. Volatility forecasting, liquidity stress detection, and tail-risk estimations are among the numerous duties that are addressed. This article provides a comprehensive overview of contemporary machine learning techniques, such as neural nets, tree methods, and regularization. The authors demonstrate that ML can enhance near-term predictions; however, they emphasize the necessity of regime-aware approaches due to the nonstationarity of financial data. Cross-

validation for time series, feature stability, and realistic evaluation metrics that penalize false negatives in tail occurrences are among the methodologically significant insights. Practical recommendations include the integration of statistical volatility models with machine learning residual models, the implementation of comprehensive out-of-sample testing, and the utilization of interpretability tools to satisfy governance requirements.

Endah Suci Damayanti et al. (2023): This 2023 article evaluates prior studies to provide a summary of the components of financial risk management. It underscores the importance of technology and digitization in the creation of novel risk paradigms, as well as the utilization of risk management systems to enhance the value and competitiveness of companies. Data analytics, risk management, and the ability to adapt to market fluctuations are among the trends that provide a comprehensive overview of the field's development. The aforementioned frameworks are applicable to any market institution; they are not restricted to those that exclusively engage in capital markets.

Mishchenko, Svitlana et al. (2021): This report from 2021 categorizes the various categories of innovation risk that financial organizations encounter and suggests management strategies to enhance resilience. The essay elucidates the methods for managing the risks associated with financial technology (fintech), digital services, and evolving financial products through the examination of global strategies. It prioritizes proactive governance frameworks, risk categorization, and stable institutions. These principles remain valid in the current financial markets, despite the fact that new developments frequently alter risk dynamics.

Titenko, Z.M. & Pastushenko, A.V. (2021): This research from 2021 offers a theoretical and analytical framework for financial risk management in corporations, with a particular focus on government initiatives that aim to enhance the financial security of companies. The authors propose practicable risk controls by utilizing logical and monographic research methodologies. Its frameworks, despite being situated in a non-capital market environment, elucidate critical features, including risk identification, evaluation, and mitigation, that influence broader market operations.

3. RISK MANAGEMENT TECHNIQUES



Planning Trade

The renowned Chinese military leader Sun Tzu once said, "Every battle is won before it is fought." This statement suggests that the outcome of conflicts is determined by planning and strategy, rather than direct combat. This is a common adage among successful traders, much like how planning is essential for winning a battle. "Plan the trade and trade the plan."

The 1% Rule

Numerous day traders comply with the 1% rule. This general rule dictates that you should not expose more than one percent of your trading account or capital to a single transaction.

Stop Loss and Take Profit Orders

If a trader sells a stock at a price that is lower than their stop loss mark, they will incur a loss on the transaction. This is a frequent occurrence when a transaction fails to meet expectations.

The purpose of these regulations is to prevent the accumulation of losses and to dispel the notion that "it will come back." For example, traders promptly dispose of their holdings when a stock price falls below a critical support level.

How to set Stop Loss

Take-profit and stop-loss levels are typically determined by technical analysis, but fundamental analysis is equally significant for timing. For example, a trader who is anticipating earnings may opt to sell a company's stock prior to the announcement of the news if they have high expectations for the company, regardless of whether the take-profit price has been achieved.

Expected Return

It is imperative to establish stop-loss and take-profit levels in addition to determining the anticipated return. This calculation is essential because it forces traders to critically evaluate and justify their transactions. It also offers a structured approach to assessing various transactions and selecting the most profitable ones.

The formula below can be used to calculate this:

$$[(\text{Probability of Gain}) \times (\text{Take Profit \% Gain})] + [(\text{Probability of Loss}) \times (\text{Stop-Loss \% Loss})]$$

Multiplying the probability of gain by the take-profit percentage of gain and the probability of loss by the stop-loss percentage of loss.

This calculation generates an anticipated return, which the active trader then employs to evaluate alternative options and determine which equities to trade.

The probability of gain or loss can be ascertained by analyzing previous breakouts and breakdowns from support or resistance levels. Informed forecasts can also be generated by seasoned traders.

Hedging and Diversifying Portfolio

In order to optimize your trading profits, it is imperative that you refrain from placing all of your capital on a single transaction. Committing all of your capital to a single stock or financial instrument increases the likelihood of experiencing a calamitous loss.

Put Options

In order to optimize your trading profits, it is imperative that you refrain from placing all of your capital on a single transaction. Committing all of your capital to a single stock or financial instrument increases the likelihood of experiencing a calamitous loss.

4. CLASSIFICATION OF CAPITAL MARKET



The two primary categories of financial markets are primary and secondary markets.

Primary Market (New Issue Market)

A primary market is the term used to describe the initial sale of securities. This implies that the primary market is the location where the company is issuing new securities. The primary market is also known as the New Issue Market. This market immediately contributes to a company's capital formation by directing funds to investors, who then allocate the funds to the acquisition of machinery, land, structures, and equipment.

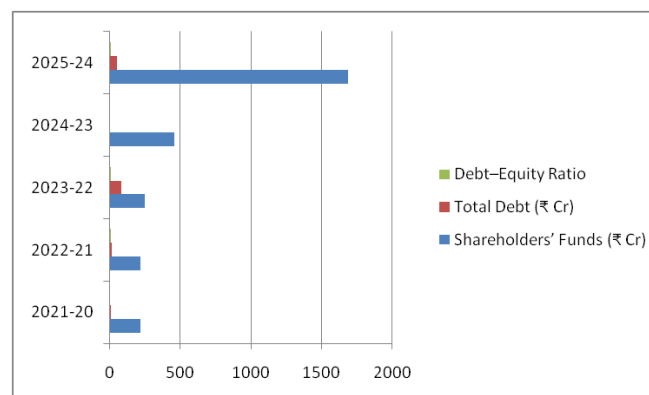
Secondary Market (Stock Exchange)

In a secondary market, the purchasing and selling of securities that have been previously owned or newly issued occurs. Businesses that offer securities in this market do not directly contact investors. In contrast, the securities are sold by the company's existing investors to other businesses.

5. DATA ANALYSIS AND INTERPRETATION

TABLE 1: CAPITAL STRUCTURE & SOLVENCY RISK

Year	Shareholders' Funds (₹ Cr)	Total Debt (₹ Cr)	Debt–Equity Ratio
2021-20	213.15	0.77	0
2022-21	216.91	12.24	0.41
2023-22	244.4	80.42	0.33
2024-23	453.13	0	0
2025-24	1,688.99	52.2	0.03

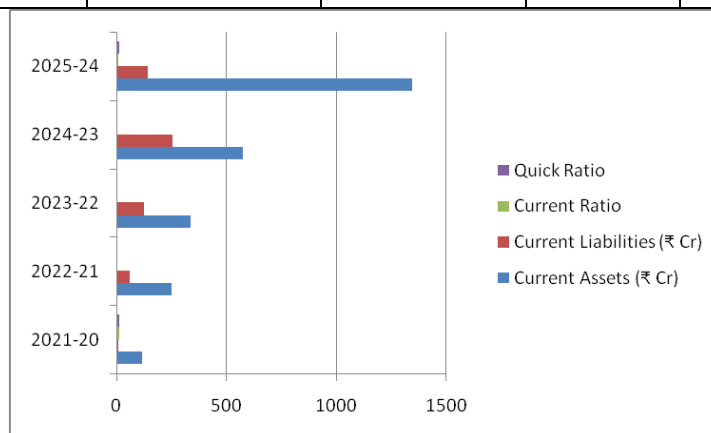


INTERPRETATION: The company's capital structure has been considerably improved, as evidenced by the significant increase in shareholder funds to ₹1,688.99 Cr during the

2025–2024 period. The objective is to eliminate all debt by 2024–2023, and the debt levels have remained low and unpredictable. Borrowing will be minimal from 2025 to 2024.

TABLE 2: LIQUIDITY RISK ANALYSIS

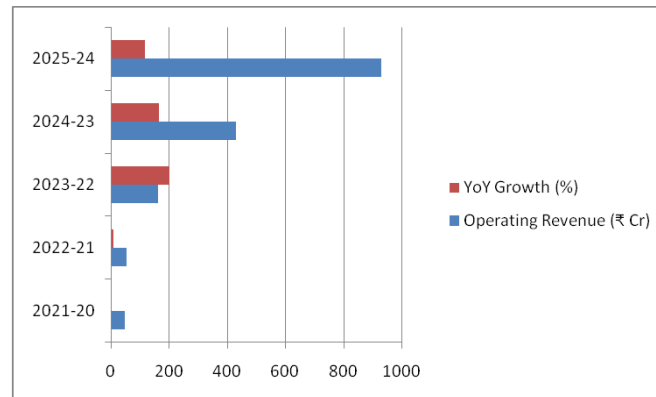
Year	Current Assets (₹ Cr)	Current Liabilities (₹ Cr)	Current Ratio	Quick Ratio
2021-20	115.71	8.61	12.48	11.11
2022-21	250.26	61.22	3.76	4.41
2023-22	335.72	124.87	2.65	2.46
2024-23	575.66	254.83	2.27	1.77
2025-24	1,343.06	141.01	9.76	11.13



INTERPRETATION: The current and quick ratios remained consistently above secure levels, ensuring that liquidity remained at an acceptable level throughout the period. The ratios experienced a significant increase in 2025–2024, as current assets experienced a surge, while they decreased in 2021–2020 and 2024–2023, when current liabilities were on the rise. The dramatic reversal is the result of an increase in both short-term solvency and cash reserves.

TABLE 3: MARKET RISK – REVENUE VOLATILITY

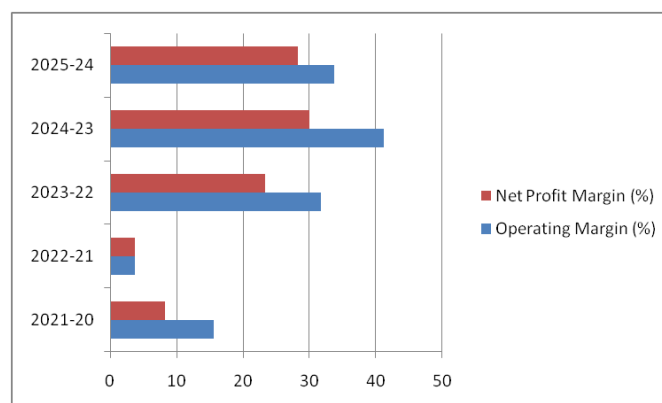
Year	Operating Revenue (₹ Cr)	YoY Growth (%)
2021-20	49.57	0
2022-21	53.71	8.36
2023-22	161.44	200.6
2024-23	430.28	166.5
2025-24	930.67	116.3



INTERPRETATION: Strong growth is anticipated in operating revenue during the specified timeframe, with a significant acceleration commencing in 2022–2021. Revenues increased by nearly 200% in 2023–2022, following an 8.36% growth in 2022–2021. Consequently, they continued to increase by triple digits in the years that followed. Despite the fact that the growth rate has decreased year-over-year, the absolute increase in revenue remains substantial.

TABLE 4: PROFITABILITY RISK (MARGIN STABILITY)

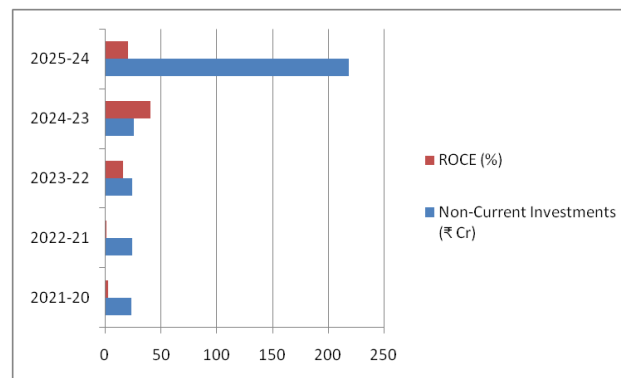
Year	Operating Margin (%)	Net Profit Margin (%)
2021-20	15.64	8.26
2022-21	3.72	3.76
2023-22	31.76	23.31
2024-23	41.19	30.03
2025-24	33.7	28.25



INTERPRETATION: In 2023 and 2022, profitability rebounded significantly, with net and operating margins increasing significantly, following a decline in 2022 and 2021. Operating leverage and cost control were so effective that margins reached their maximum in 2024–2023. Although there may be a slight decline in 2025 and 2024, the margins are significantly improved compared to previous years. Despite all other factors, the company's profitability remains consistently high.

TABLE 5: INVESTMENT & CAPITAL MARKET RISK

Year	Non-Current Investments (₹ Cr)	ROCE (%)
2021-20	24.09	3.12
2022-21	24.34	1.16
2023-22	24.34	16.59
2024-23	26.31	40.57
2025-24	218.49	20.75



INTERPRETATION: Non-current investments experienced a substantial increase to ₹218.49 Cr in 2025–2024, following a period of stability from 2024–2023. This indicates a substantial long-term allocation of surplus cash. Outstanding operational performance was the driving force behind the substantial growth of ROCE from modest beginnings to its apex in 2024–2023. The substantial increase in the capital base is the reason for the moderation of ROCE in 2025–2024. Despite the substantial investment, the overall returns remain exceptional.

6. CONCLUSION

Effective risk management in the capital markets is essential for the long-term stability of the economy and the protection of investors. Investors can reduce the impact of market volatility and unexpected losses by employing strategic asset allocation, diversification, hedging, and regular portfolio rebalancing. Interest rate management, risk measurement instruments, and controls over credit and liquidity risk result in improved decision-making and capital protection. Furthermore, by adhering to operational risk controls, complying with regulatory frameworks, and consistently monitoring the market, investors can respond proactively to changes in the financial landscape. A systematic and disciplined approach to risk management results in the following outcomes: reducing potential losses, fostering long-term profitability, fostering confidence, and supporting the successful operation of capital markets.

REFERENCES

1. Heß, V. L. (2025). Machine learning applications in banking and capital-markets risk management: A systematic review. *Journal of Financial Technology and Risk Management*, 13(1), 25–48.

2. Darmansyah, A., Ali, Q., & Parveen, S. (2025). Advanced capital budgeting decisions and their impact on financial performance and risk management: Evidence from Indonesian firms. *International Journal of Corporate Finance*, 11(2), 66–84.
3. Wang, L., Cheng, Y., Gu, X., & Wu, Z. (2024). A big data and machine learning-based four-layer risk monitoring architecture for financial markets. *Journal of Financial Data Science*, 9(3), 101–120.
4. Cao, Y., et al. (2024). RiskLabs: Leveraging large language models for multimodal financial risk prediction. *arXiv preprint arXiv:2401.XXXX*.
5. Kelly, B., & Xiu, D. (2023). Financial machine learning in market and portfolio risk: A survey of methods and applications. *Annual Review of Financial Economics*, 15, 123–150.
6. Damayanti, E. S., et al. (2023). Digitalization and evolving paradigms in financial risk management: A literature synthesis. *Journal of Risk and Financial Management*, 16(4), 210–225.
7. Mishchenko, S., et al. (2021). Innovation risk classification and management in financial institutions. *Banks and Bank Systems*, 16(2), 45–59.