International Journal of Science and Research Archive
eISSN: 2582-8185
Cross Ref DOI: 10.30574/ijsra
Journal homepage: https://ijsra.net/

(RESEARCH ARTICLE)

Check for updates

Operational Risk Prevention Strategies in Zimbabwean Commercial Banking from a Financial Audit Perspective

Cherish Sibanda * and Zhang Shuiping

Anhui University of science and technology, school of Economics and Management, China.

International Journal of Science and Research Archive, 2026, 18(02), 380-385

Publication history: Received on 01 January 2026; revised on 07 February 2026; accepted on 10 February 2026

Article DOI: https://doi.org/10.30574/ijsra.2026.18.2.0231

Abstract

Operational risk is a major cause of losses and instability for commercial banks, especially in developing countries where macroeconomic fluctuations and uncertain regulations can create weak governance and internal controls. From the perspective of auditing, this study will examine operational risk prevention methods for banks in Zimbabwe, using Zimbabwe Commercial Bank (ZCB) as a case example. This paper will also look at the different ways operational risk can arise, present a method of evaluating operational risk based on a correlation between key risk indicators (KRI) and actual audit evidence, and will apply a Loss Distribution Method (LDA) using Monte Carlo Simulations for early warning thresholds based on Value at Risk (Var) or tail risk measures. The research demonstrates a strongly right-skewed loss distribution where rare events produce extreme losses, stressing the need for audit-driven controls testing, ongoing monitoring, and disciplined remediation of audit results. As such, several practical recommendations are made concerning strengthening internal controls, aligning audit plan with risk signals, and enhancing the operational resilience of Zimbabwe's banking sector.

Keywords: Operational Risk; Financial Audit; Commercial Banks; Early-Warning Model

1. Introduction

Operational risk defined broadly as the risk of loss resulting from inadequate or failed internal processes, people, systems, or external events has grown as banking activities have become more complex and technology dependent. Digital channels, third party service providers and changing expectations of supervisors creates greater exposure to breakdowns in processes, cyber incidents, fraud and breaches of other compliance activities. In this environment, the financial audit function plays a central role.

1.1. Context: Zimbabwe

Zimbabwe's banks operate in a high-pressure macro environment of currency change, inflation, and other regulatory changes. This macro-stress can compromise governance structures, discourage investment in resilience, and incentivize manual workarounds increasing operational risk and encouraging more transaction errors, downtime, fraud, or regulatory losses. [2].

1.2. Problem Statement

Less politely, despite the blindingly obvious importance of operational risk management Zimbabwean commercial banks are still committing material operational risk events. Sometimes audit findings are implemented slowly or inconsistently. Early-warning mechanisms too frequently do not exist, and operational risk indicators are not always entrenched in management decisions. This mismatch between audit insights and operational risk governance can lead

* Corresponding author: Cherish Sibanda

to pointless losses, reputational harm, and reduced stakeholder confidence [3]. What is required is a structured, audit-linked approach which translates what is otherwise just a number into timely prevention actions.

1.3. Research Objectives

1.3.1. General objective

To examine operational risk prevention strategies for Zimbabwean commercial banks from the perspective of financial audit.

1.3.2. Specific objectives

- Identify major sources and formation mechanisms of operational risk in Zimbabwean commercial banking.
- Assess the effectiveness of current audit practices in detecting and reducing operational risk.
- Propose an operational risk evaluation indicator system that links KRIs to audit procedures.
- Develop an operational risk early-warning measurement model using an LDA framework.
- Recommend audit-based prevention measures suited to Zimbabwe's economic and regulatory context.

1.3.3. Scope and Significance

We study operational risk within Zimbabwean commercial banks and use ZCB as a working example. We focus on internal controls, governance, audit and risk monitoring. We contribute by (i) integrating audit evidence and KRIs within one single indicator; (ii) following simulation-based here for quantifying tail risk; (iii) reporting zone of early-warning conformance to management and auditors. [4].

1.3.4. Structure of the Study

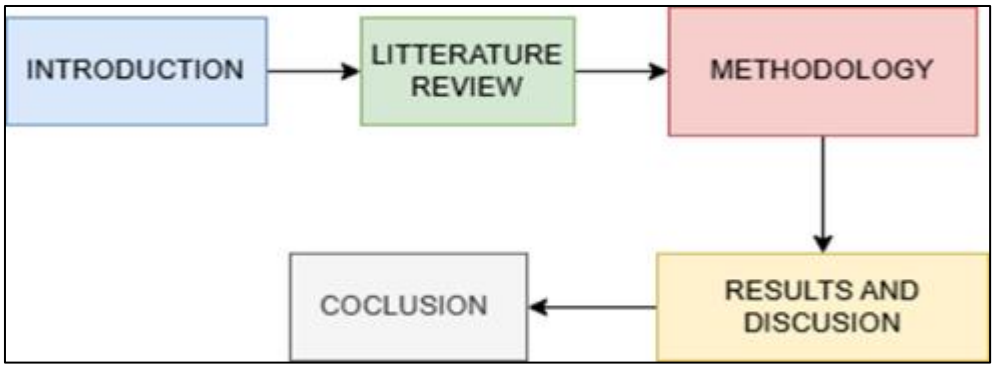

Figure 1 Structure of the Study

This is the flow of your typical paper. You start with an introduction, providing the background, putting your problem in context. You state what your study is meant to accomplish. You review the prior literature, providing a background for the theoretical basis and identifying any gaps. You explain your methodology, how the data will be gathered, how it will be analyzed. You provide a report of your findings/results and then a discussion of what those findings mean, tying them back to the literature you've reviewed, and to practice. Finally, you conclude, summarizing the key findings, talking about the contribution that you're making, and identifying areas for further research.

2. Literature Review

Liquidity risk is the risk that a firm will sustain losses arising from its inability to promptly meet its short-term obligations (Alim, Ali, and Metal, 2021). This difficulty expectations of other firm's transfer of ownership which raises the potential of the business, resulting in a crisis and consequent business failure. Primarily these are companies that rely heavily on short term methods of financing, such as commercial paper or using lines if credit which can be rapidly withdrawn by investors based on a change in sentiment (Rakhee, 2020).Additionally, poor cash flow management and inadequate forecasting can intensify liquidity constraints, particularly during economic downturns or periods of market instability (Ahmed and El Nahass, 2024; Klapper and Lusardi, 2020). Ineffective liquidity management not only threatens a firm's solvency but may also damage its reputation, increase borrowing costs, and disrupt essential payments (Taskin soy, 2022).

Also important is operational risk, part of an integrated financial risk management approach, consistent of failures in internal processes, systems, personnel and compliance (Christoffersen and Gonçalves, 2004). This type of risk is transverse, affecting the firm's capacity of achieving strategic objectives while preserving reputation and protecting their assets (Eceiza et al., 2020). Henceforth, operational risk management should engage an overall framework for identifying, assessing, mitigating and monitoring the disruptions that can occur on multiple organizational levels (Taskin soy, 2022).

This research focuses on Zimbabwe's financial sector, where economic instability characterized by hyperinflation (which peaked to 89.7 sextillion % month-on-month inflation in October 2008), currency fluctuations, and market inefficiencies mandates specific financial risk strategies. By interviewing 15 financial stakeholders, it examines the structural uncertainties and interactions that delineate governance and risk responses in Zimbabwe.

With traditional paradigms crippling under these dynamically shifting sands, this research proposes a localized financial risk management framework. This model embeds contextually relevant risk drivers with mitigation plans including revenue diversification, hedging, and stringent cash flow management to help Zimbabwean companies discern predictable patterns amidst financial turbulence.

3. Methodology

3.1. Research Design

A quantitative, simulation-based design illustrates how a bank quantifies operational risk exposure and converts measurement results into early-warning thresholds (warning at an ex-ante threshold that may prompt an audit or management actions). Since operational loss events are uncertain and can be extreme, a Monte Carlo simulation is applied within an LDA framework to derive a distribution of possible annual losses.

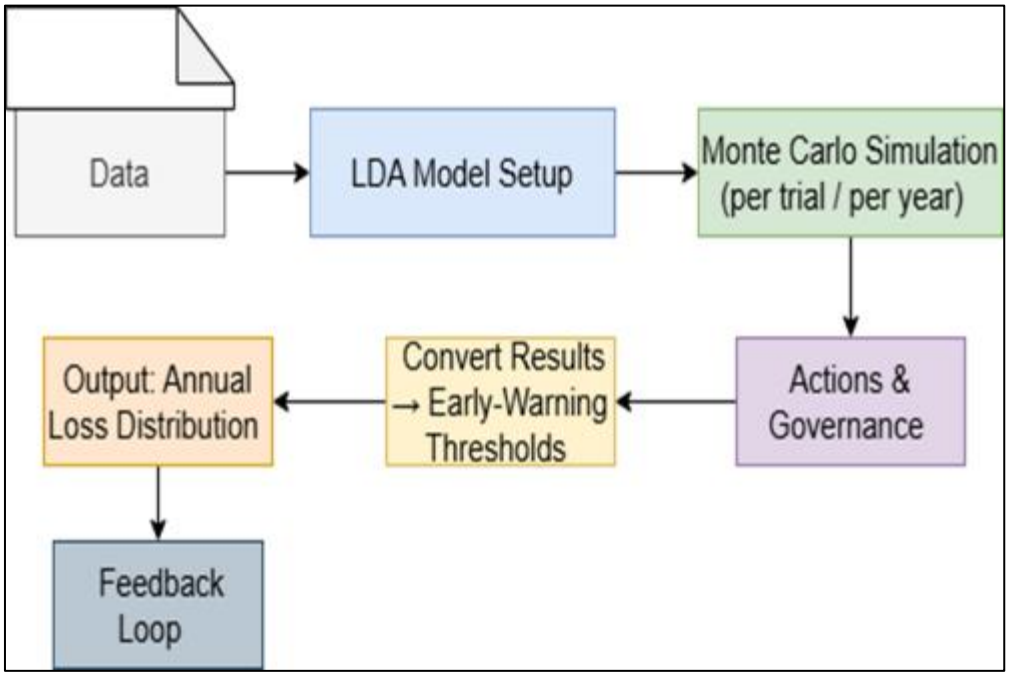

Figure 2 Research design

3.2. Data Sources

The analysis uses an approach involving typically publicly available information to auditors and risk functions (annual accounts, banks disclosures, supervisory correspondence from Reserve Bank of Zimbabwe (RBZ), macro-financial indicators taken from international reports) to help inform selection of the indicators and the calibration of the model. And even if there isn't a wealth of internal loss details, the framework provides the approach as a template, to be used, and can be run properly as and when bank-specific data become available.

3.3. Loss Distribution Approach (LDA)

Under the LDA, annual operational loss is modeled as the aggregation of loss frequency and loss severity. Loss frequency represents how often loss events occur within a year and is commonly modeled using a Poisson distribution. Loss severity represents the size of each loss and is often modeled using a heavy-tailed distribution such as the Lognormal. In each simulated year, a random number of events is generated and their severities are sampled, then summed to produce the annual loss.

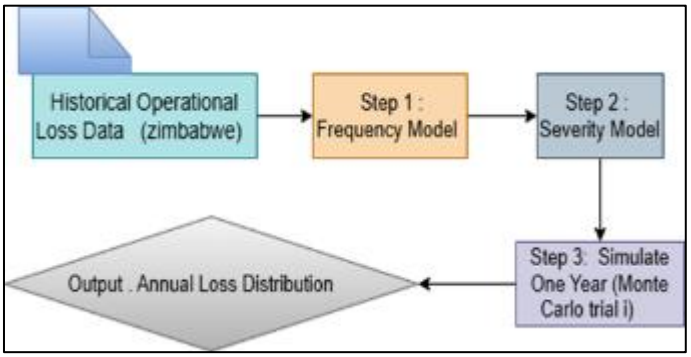

Figure 3 Loss Distribution Approach

3.4. Data Sources

3.4.1. Monte Carlo Simulation Procedure

- Select and calibrate parameters for the frequency distribution (Poisson) and severity distribution (Lognormal) from available loss data or proxy assumptions.
- Run a large number of iterations (e.g., 10,000) to generate simulated annual losses.
- Compute summary statistics and tail metrics such as Expected Loss (EL) and Value at Risk (VaR) at selected confidence levels (e.g., 95% and 99%).
- Define early-warning zones using loss thresholds and link each zone to audit and management response actions.

4. Results and Discussion

4.1. Outputs

Table 1 summarizes illustrative results from an LDA-based Monte Carlo simulation. The distribution is heavily right-skewed: most simulated years' experience modest losses, while a small number of scenarios produce very large losses.

Table 1 Results from an LDA-based

Metric	Value (USD)
Mean loss (Expected Loss, EL)	132,068
Median loss	54,418
95% Value at Risk (VaR95)	487,454
99% Value at Risk (VaR99)	1,263,409

That our mean is considerably greater than our median indicates that more extreme events are materially influencing our average. The difference between VaR95 and VaR99 is also quite remarkable providing clear evidence of tail risk consistent with anyone familiar with the operational risk space where a small number of events (say, fraud, major system failure, cyber breach, regulatory penalty etc.) account for the bulk of worst-case losses.

4.2. Early-Warning Zones

To convert quantitative results into operational decisions, early-warning zones can be defined using the tail thresholds.

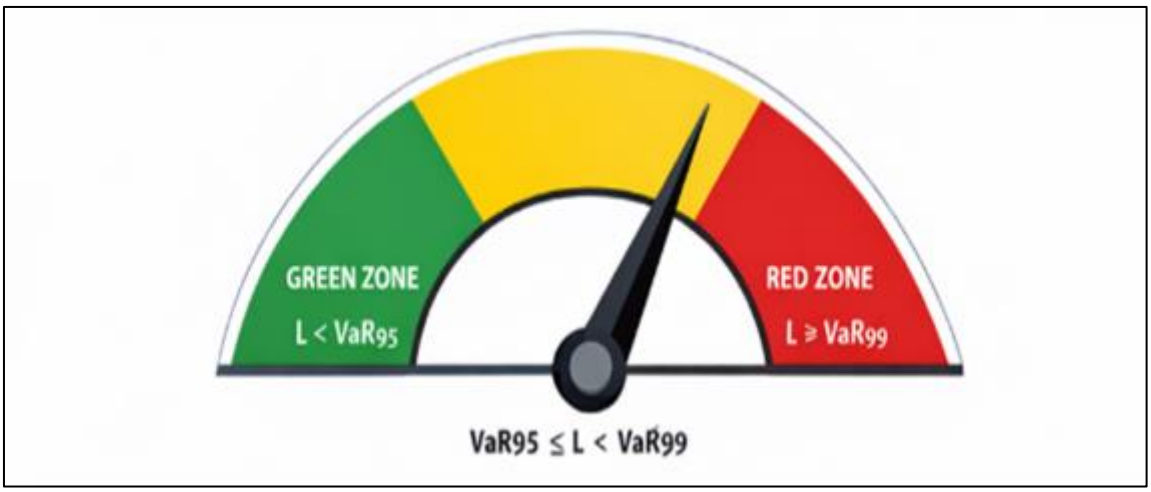

Figure 4 Early-Warning Risk Zones Based on Value-at-Risk Thresholds

- Green (Normal): loss < VaR95. routine controls testing and periodic audits.
- Yellow (Attention): VaR95 ≤ loss < VaR99. targeted audits of high-risk processes; accelerated remediation and enhanced reconciliations.
- Red (Critical): loss ≥ VaR99. management escalation; special audits, immediate corrective action plans, and intensified control enforcement.

4.3. Audit Implications, KRIs, and Control Weaknesses

Model outputs support an audit-driven prevention strategy. Extreme losses are often symptoms of control failures such as ineffective segregation of duties and authorization controls (preventive), missed reconciliations or failed exception monitoring (detective), or late closing of audit observations (corrective). To decrease both event frequency and severity, banks could monitor key risk indicators that are readily observables in audit workpaper footprints and operational dashboards such as repeat findings, extended issue-closure time, reconciliation backlog, privileged access, system down time, or abnormal growth in manual journal entries. A degradation in any of these KRIs should trigger earlier audit and management actions to slow loss migration toward the tail.

5. Conclusion

This research proposes an audit-centric technique of operational risk prevention in Zimbabwean commercial banking. By linking an indicator system (KRIs tapping audit evidence) with a simulation-based LDA model, banks can measure tail risk, set early-warning zones, and implement timely interventions. The illustrative results describe a heavy-tailed loss profile where rare events account for most risk exposure, necessitating strong internal controls, periodic reviews, and disciplined remediation of audit findings. Future work should implement the proposed framework using bank-specific loss data and expand scenario analysis with cyber and third-party risk scenarios.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

References

[1] Aduda, J., and Obondy, S. (2021). Credit risk management and efficiency of savings and credit cooperative societies: A review of literature. Journal of Applied Finance and Banking, 11(1), 99-120.

[2] Aebi, V., Sabato, G., and Schmid, M. (2012). Risk management, corporate governance, and bank performance in the financial crisis. Journal of Banking and Finance, 36(12), 3213-3226.

[3] Ahmed, M. S., and Elnahass, M. (2024). Being famous matters: Evidence from cash flow volatility. International Review of Financial Analysis, 93, 103165.

[4] Alim, W., Ali, A., and Metla, M. R. (2021). The effect of liquidity risk management on financial performance of commercial banks in Pakistan.

[5] Chen, C., Zhai, H., Wang, Z., Ma, S., Sun, J., Wu, C., and Zhang, Y. (2022). Experimental research on the impact of interest rate on real estate market transactions. Discrete Dynamics in Nature and Society, 2022 (1), 9946703.

[6] Benedict, A., Mafika, S., Tutu, K. B., and Selase, A. M. (2022). The effects of political risk on foreign exchange demand: Evidence from Zimbabwe. Cogent Economics . and Finance, 10(1), 2111806.

[7] Bouteille, S., and Coogan-Pushner, D. (2021). The handbook of credit risk management: originating, assessing, and managing credit exposures. John Wiley and Sons.

[8] Kumshe, H. M., Umar, B., and Modibbo, S. A. Effect of Risks Management on the Financial Performance of Listed Deposit Money Banks in Nigeria.

[9] Mafimisebi, O. P., Obembe, D., and Ogunsade, A. I. (2023). Planned, improvised or resilience: Small business owner managers' perception and response to crises in crisis-prone environments. Journal of General Management, 03063070231159568.

[10] Matambo, M., Moyo, G., Mukonza, R. M., and Chigova, L. E. (2022). Corporate governance and credibility gap: Four decades of struggling reform efforts in Zimbabwe.

[11] African Renaissance (1744 2532), 19(4). Moudud-Ul-Huq, S., Akter, R., and Biswas, T. (2020). Impact of financial crisis on credit risk: Pre-and post-financial crises in an emerging economy. FIIB Business Review, 9(2), 118-132.

[12] Mugiyo, H., Magadzire, T., Choruma, D. J., Chimonyo, V. G. P., Manzou, R., Jiri, O., and Mabhaudhi, T. (2023). El Niño's effects on Southern African agriculture in 2023/24 and anticipatory action strategies to reduce real market transactions. Discrete Dynamics in Nature and Society, 2022 (1), 9946703.

[13] Christoffersen, P., and Gonçalves, S. (2004). Estimation risk in financial risk management (pp. 1-31). CIRANO.

[14] Eceiza, J., Kristensen, I., Krivin, D., Samandari, H., and White, O. (2020). The future of operational-risk management in financial services. Preuzeto, 17, 2022.

[15] Exler, F., and Tertilt, M. (2020). Consumer debt and default: A macro perspective. Jain, Y. K. (2024). Financial Management and Market Dynamics. Xoffencerpublication.

[16] Klapper, L., and Lusardi, A. (2020). Financial literacy and financial resilience: Evidence from around the world. Financial Management, 49(3), 589-614.

[17] Kumshe, H. M., Umar, B., and Modibbo, S. A. Effect of Risks Management on the Financial Performance of Listed Deposit Money Banks in Nigeria.

[18] Mafimisebi, O. P., Obembe, D., and Ogunsade, A. I. (2023). Planned, improvised or resilience: Small business owner managers' perception and response to crises in crisis-prone environments. Journal of General Management, 03063070231159568.