

Effect of Risk Identification on Financial Performance of Small and Medium Enterprises (SMES) In Enugu State

Orji, Lilian Uzoamaka¹ & Prof. Oliver I. Inyiama²

Abstract

The study examines the effect of risk identification on financial performance of small and medium enterprises (SMEs) in Enugu State, with a focus on Return on Investment (ROI). The research used a Ex-post facto research, collecting data from 50 SMEs with consistent and accessible financial reports, covering sectors such as retail, manufacturing, and services. The study specifically investigates the impact of formal risk identification, the frequency of risk identification, and the number of risks identified on the ROI of SMEs. The results of the regression analysis reveal that formal risk identification (FRI) has a significant positive effect on ROI, with a t-statistic of 3.678 and a p-value of 0.0006, indicating that SMEs with formal risk identification systems tend to experience better financial outcomes. Similarly, risk identification frequency (RIF) shows a significant positive relationship with ROI, with a t-statistic of 2.635 and a p-value of 0.0112, suggesting that more frequent risk assessments contribute to improved financial performance. Furthermore, the number of risks identified (NRI) also positively impacts ROI, with a t-statistic of 2.452 and a p-value of 0.0178, emphasizing the importance of identifying a broad range of risks for better financial resilience. In conclusion, the study underscores the importance of formal and frequent risk identification processes in enhancing the financial performance of SMEs in Enugu State. SMEs that engage in structured and consistent risk identification practices are likely to experience improved ROI, reinforcing the need for SMEs to adopt comprehensive risk management frameworks for long-term financial success.

Keywords: Risk Identification, Financial Performance, Return on Investment (ROI), SMEs, Enugu State.

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Authors	Affiliation
1	Department of Accountancy, Faculty of Management Sciences, Enugu State University of Science and Technology ESUT, Enugu State, Nigeria
2	Department of Accountancy, Faculty of Management Sciences, Enugu State University of Science and Technology ESUT, Enugu State, Nigeria

Introduction

Small and Medium Enterprises (SMEs) play a pivotal role in the economic development of many nations, including Nigeria. They contribute significantly to job creation, poverty reduction, and innovation (Akinwale & Olaniran, 2020). However, despite their importance, SMEs face several challenges that threaten their growth and sustainability, with financial performance being one of the most critical areas of concern (Okpara, 2019). Among the numerous factors that affect SMEs' financial performance, risk management, especially risk identification has emerged as a crucial determinant (Ogunyemi, 2021). Risk identification refers to the process of recognizing and assessing potential risks that could negatively impact a business (Adeniran & Akinbode, 2020). For SMEs, these risks can range from financial instability, market competition, regulatory changes, to operational inefficiencies (Nwachukwu et al., 2022). Effective identification and management of risks allow businesses to mitigate potential losses, optimize resource allocation, and improve overall financial performance (Uche & Ofoegbu, 2023).

In Enugu State, like many other regions in Nigeria, SMEs are confronted with unique risks due to the volatile economic climate, infrastructural deficiencies, and limited access to financial resources (Chukwuma & Nwogu, 2018). These risks often result in poor financial performance, affecting profitability and the long-term viability of businesses. Despite this, many SMEs in Enugu State fail to implement effective risk management practices, including risk identification, which leaves them vulnerable to unforeseen financial setbacks (Okechukwu & Ogbole, 2020). Recent studies highlight that SMEs that have a structured approach to risk identification and management tend to perform better financially compared to those that do not (Nwankwo et al., 2022). This suggests that a better understanding of how risk identification influences financial outcomes could provide valuable insights into improving the financial health of SMEs in Enugu State (Okpara, 2019). However, despite its importance, there is limited empirical research that specifically examines the relationship between risk identification and financial performance in this context.

Statement of the Problem

In an ideal business environment, Small and Medium Enterprises (SMEs) should proactively identify and assess risks that could potentially hinder their operations and financial performance. Effective risk identification is an essential aspect of risk management that allows businesses to anticipate challenges, develop strategic responses, and make informed decisions. SMEs that practice sound risk identification and management can optimize their resources, minimize financial losses, enhance profitability, and improve their long-term sustainability. Moreover, such practices contribute to greater resilience, helping SMEs navigate economic fluctuations, market competition, and regulatory changes.

In reality, however, many SMEs in Enugu State, and indeed across Nigeria, fail to adequately identify and manage risks. This failure often stems from limited knowledge of risk management principles, a lack of technical expertise, and insufficient resources dedicated to risk identification. Many SMEs do not prioritize risk management, viewing it as an unnecessary cost rather than an investment in the longevity of the business. As a result, these businesses are more vulnerable to financial setbacks, such as cash flow problems, debt accumulation, and operational inefficiencies. This lack of proactive risk management has a direct negative impact on their financial performance, leading to poor profitability, business failure, and stunted growth.

If the issues related to ineffective risk identification and management are not addressed, the financial performance of SMEs in Enugu State will continue to suffer. Businesses will remain exposed to preventable risks, including market volatility, economic disruptions, and operational inefficiencies, ultimately affecting their profitability and survival. As SMEs play a crucial role in the local economy, the failure to improve risk management practices could have broader implications, including lower levels of employment, reduced entrepreneurial activity, and hindered economic development in the region. Over time, this could lead to the closure of many SMEs, resulting in job losses and economic stagnation, further exacerbating the challenges already faced by the SME sector in Enugu State.

Objectives of the Study

The primary purpose of this study is to examine effect of risk identification on financial performance of small and medium enterprises (SMES) in Enugu state. The specific objectives of the study are to:

- i. Evaluate the relationship between the presence of formal risk identification systems and return on investment (ROI) among selected SMEs in Enugu State.

- ii. Analyze the association between the frequency of risk identification reporting (e.g., quarterly, annually) and ROI of SMEs in Enugu State.
- iii. Assess how the intensity of risk identification practices (e.g., number or types of risks identified as disclosed in reports) affects SMEs' return on investment (ROI).

Research Questions

The study provided answers to the following research questions.

- i. What is the relationship between the presence of formal risk identification systems and return on investment (ROI) among selected SMEs in Enugu State?
- ii. How does the frequency of risk identification reporting influence the ROI of SMEs in Enugu State?
- iii. To what extent does the intensity of risk identification practices impact the ROI of SMEs in Enugu State?

Statement of Hypotheses

The following hypotheses in null form (H_0) guided this study

- i. There is no significant relationship between the presence of formal risk identification systems and return on investment (ROI) among selected SMEs in Enugu State.
- ii. The frequency of risk identification reporting has no significant effect on the ROI of SMEs in Enugu State.
- iii. The intensity of risk identification practices does not significantly impact the ROI of SMEs in Enugu State.

Significance of the Study

The findings from this study will be beneficial to several individuals and institutions, particularly those involved in the development and management of Small and Medium Enterprises (SMEs) in Enugu State, as well as in broader economic and policy contexts.

- i. **SME Owners and Entrepreneurs:** The study will provide SME owners in Enugu State with insights on how identifying and managing risks can significantly improve their financial performance. By understanding risk management principles, business owners can make informed decisions that enhance profitability, growth, and business sustainability, leading to long-term success.
- ii. **Policy Makers and Government Institutions:** The findings will assist policy makers in creating targeted policies to support SMEs in Enugu State. Government institutions can leverage the insights to design programs that encourage risk identification practices, offer financial support, and provide training to SMEs, fostering a more resilient and competitive business environment.
- iii. **Financial Institutions and Investors:** Banks, microfinance institutions, and other financial organizations will benefit by understanding how effective risk management affects the financial stability of SMEs. This knowledge will help them make better lending decisions, offer more appropriate financial products, and provide risk-related advisory services that improve the overall financial ecosystem for SMEs.
- iv. **Academics and Researchers:** Researchers and academic institutions will find value in this study as it contributes to the existing body of knowledge on risk management in SMEs, particularly within the Nigerian context. The study's empirical data can serve as a foundation for further research, comparative studies, and theoretical advancements in business management and risk identification.

Operational Definition of Terms

The following terms operationalized the study:

- i. **Small and Medium Enterprises (SMEs):** In this study, SMEs are defined as businesses with fewer than 250 employees and an annual turnover not exceeding ₦100 million (approximately \$250,000). This definition aligns with the Nigerian government's classification of SMEs. These businesses operate across various sectors, including manufacturing, retail, and services, and are typically characterized by a limited workforce, smaller scale of operations, and fewer resources compared to large enterprises.
- ii. **Risk Identification:** Risk identification refers to the process of systematically detecting and documenting potential risks that may threaten the operations and financial stability of SMEs. It involves recognizing both internal and external risks, such as financial instability, market fluctuations, operational inefficiencies, and

regulatory changes. The goal is to identify risks early so that appropriate risk management strategies can be developed to mitigate their potential impacts.

- iii. **Financial Performance:** Financial performance in this study refers to the ability of SMEs to generate profit and manage resources effectively. It is assessed using financial indicators such as profitability, liquidity, and return on investment. Profitability reflects the SME's ability to generate income above its costs, while liquidity indicates its capacity to meet short-term obligations. Financial performance is a key indicator of an SME's overall health and growth potential.
- iv. **Risk Management:** Risk management encompasses the strategies, policies, and actions employed by SMEs to reduce or control risks. This includes identifying, analyzing, assessing, and prioritizing risks, and then implementing measures to mitigate them. Effective risk management also involves regularly monitoring risks and adjusting strategies as necessary to minimize the negative impact on the business's operations and financial performance.
- v. **Profitability:** Profitability is the measure of how well an SME generates income relative to its expenses. In this study, profitability will be evaluated using metrics such as net profit margin, which indicates the percentage of revenue that turns into profit, and return on assets (ROA), which measures how effectively the company uses its assets to generate profit. High profitability indicates a well-managed business with healthy financial results.
- vi. **Cash Flow:** Cash flow refers to the movement of money into and out of a business, which is crucial for day-to-day operations. It includes both operating cash flow (cash generated from the core business activities) and non-operating cash flow (cash from investments, loans, or other sources). Positive cash flow enables SMEs to meet their financial obligations, reinvest in growth, and avoid liquidity problems that could hinder business operations.

Review of Related Literature

Conceptual Review

Risk Management Practices

Risk management refers to the systematic process of identifying, assessing, and mitigating potential risks that could impact an organization's objectives. Effective risk management ensures that organizations are proactive in managing uncertainties, avoiding unnecessary losses, and taking calculated risks that can provide strategic advantages. In the modern business environment, risk management is essential across various industries, whether financial, healthcare, or manufacturing (Jones & Roberts, 2023). A comprehensive risk management approach helps businesses understand and anticipate challenges before they arise. One of the core practices in risk management is risk identification, which involves recognizing potential risks that could affect the achievement of organizational goals. This process requires both internal and external evaluations to identify hazards, which may include financial uncertainties, operational disruptions, or legal risks. Technologies such as predictive analytics and artificial intelligence are increasingly integrated into risk identification systems to offer more accurate assessments (Williams & Smith, 2022). Companies also rely on historical data and market trends to uncover emerging risks that may have gone unnoticed without such tools.

Following risk identification, risk assessment plays a crucial role in evaluating the likelihood and impact of each identified risk. The assessment involves determining the severity of risks and prioritizing them accordingly, with a focus on high-impact, high-likelihood risks. This evaluation is often conducted using qualitative and quantitative methods, such as risk matrices and probabilistic models (Harrison et al., 2024). By establishing a risk profile, organizations can allocate resources more effectively to manage the most critical risks. Furthermore, an organization's risk tolerance also influences this process, as different entities may approach risk-taking differently. Once risks are assessed, businesses must take steps to mitigate them. Risk mitigation strategies vary depending on the nature of the risk, and they may include risk avoidance, reduction, sharing, or acceptance. For example, a company might reduce operational risks by implementing new technologies or train employees to minimize human error (Davis & Green, 2022). Additionally, insurance policies may be used to transfer certain financial risks, providing businesses with a safety net. The key to effective risk mitigation is continuously reviewing and adjusting strategies in response to changing internal and external conditions.

Return on Investment (ROI)

Return on Investment (ROI) is a key financial metric used to evaluate the profitability of an investment. It measures the gain or loss generated relative to the amount invested, allowing businesses and investors to assess the efficiency of their investments (Taylor & Harris, 2021). The basic formula for ROI is the net profit divided by the cost of the investment, typically expressed as a percentage. This simple yet effective measure allows organizations to compare different investment opportunities and make informed decisions. The calculation of ROI can be applied to various business areas, from marketing campaigns to capital expenditures. By assessing ROI, businesses can determine whether an investment generates a favorable return compared to other options. For instance, in marketing, a company may calculate the ROI of a new advertising strategy to assess its impact on sales growth. If the ROI is positive, the investment can be deemed successful (Park & Jones, 2023). As a result, ROI helps organizations identify which initiatives yield the highest returns.

SME Performance

Small and Medium Enterprises (SMEs) are crucial for the growth and development of economies worldwide. SME performance is typically measured through financial metrics, such as profitability, revenue growth, and return on investment. However, non-financial indicators such as customer satisfaction, innovation, and employee performance also play a significant role in assessing overall success (Davis & Thompson, 2023). SMEs are essential because their performance directly affects employment levels, competition, and innovation within local and global markets (Rodriguez & Zhang, 2022). Effective management and strategy implementation are fundamental for enhancing SME performance. Organizations that prioritize strategic planning, resource allocation, and risk management tend to perform better in a competitive environment. This is especially true for SMEs that operate in dynamic sectors like technology, where innovation and adaptability are key drivers of success (Paterson & Wallace, 2021). Without proper planning and management, SMEs risk stagnation and failure, making performance monitoring an ongoing necessity (Harrison et al., 2022).

Risk Identification Frequency

Risk identification frequency refers to how often an organization actively reviews and identifies potential risks in its operations, processes, or strategic plans. The frequency with which risks are identified plays a crucial role in ensuring that a company can anticipate and mitigate emerging threats before they escalate. Organizations that regularly monitor their risk environment tend to be more proactive in managing risks, allowing for quicker responses to both external and internal threats (Morris & Anderson, 2022). This frequency is often determined by the industry, company size, and the complexity of operations.

In high-risk industries such as finance or healthcare, the frequency of risk identification tends to be higher due to the critical nature of potential threats. These sectors require constant monitoring to comply with regulations, protect sensitive data, and ensure operational continuity. As technology continues to evolve, many companies are integrating real-time risk monitoring tools, enabling them to identify risks continuously and respond to emerging threats almost instantly (Walker & Thomas, 2023). This continuous risk identification process helps mitigate sudden disruptions that could harm the business.

The frequency of risk identification also influences how effectively risks are mitigated. By performing regular risk assessments, companies can develop a more detailed risk register and anticipate the potential consequences of identified risks. This process enables organizations to design more effective mitigation strategies and reduce the likelihood of unexpected negative outcomes. High-frequency risk identification allows for a better understanding of trends and helps to fine-tune preventive measures (Baker & Stewart, 2022).

Enterprise Risk Assessment

Enterprise Risk Assessment (ERA) is the process by which organizations identify, analyze, and evaluate the risks that could impact their overall objectives. It aims to provide a comprehensive understanding of potential threats, vulnerabilities, and opportunities, allowing businesses to proactively manage risks. ERA is essential for ensuring that risks are identified early, enabling the development of appropriate strategies to mitigate them. Effective enterprise risk assessments are crucial for organizations to maintain long-term sustainability and achieve their strategic goals (Keller & Harrison, 2023). The process of ERA involves several steps, including risk identification, risk analysis, risk evaluation, and risk treatment. First, organizations identify the risks they face by examining both internal and

external factors, such as market fluctuations, regulatory changes, and operational inefficiencies. Once risks are identified, the next step is to analyze their potential impact and likelihood. This helps businesses prioritize risks based on severity and allocate resources accordingly (Williams & Cooper, 2024). The goal is to understand the specific nature of each risk and prepare strategies to address them effectively.

Moreover, the evaluation phase of ERA helps organizations determine the level of risk they are willing to accept. Risk tolerance plays a key role in this phase, as different organizations may have different thresholds for risk exposure based on their financial stability, industry, and corporate culture. A critical aspect of ERA is aligning risk management efforts with organizational objectives, ensuring that the chosen risk treatment strategies do not impede the company's growth or operational capacity (Brown & Turner, 2023). Evaluating risks helps organizations take proactive actions, from risk avoidance to risk sharing, depending on the context. In recent years, technology has significantly transformed the way enterprise risk assessments are conducted. With advancements in data analytics, artificial intelligence, and machine learning, companies can now collect and process vast amounts of data in real-time. These technologies provide deeper insights into potential risks, offering predictive capabilities that were previously unavailable. By using advanced tools and software, organizations can streamline their ERA processes, making them more accurate and efficient (Reed & Martinez, 2023). Technology has enabled more dynamic and adaptable risk management practices, improving decision-making processes.

Financial Sustainability in SMEs

Financial sustainability in Small and Medium Enterprises (SMEs) refers to the ability of an organization to generate sufficient income, manage its expenses, and effectively allocate resources to ensure long-term viability. Financial sustainability is critical for SMEs as it helps them navigate economic fluctuations and operational challenges while ensuring growth and stability. Maintaining financial sustainability involves strategic financial planning, effective cash flow management, and investment in key resources to avoid insolvency (Robinson & Lee, 2023). SMEs that successfully manage these factors are more likely to withstand market disruptions. One of the key elements of financial sustainability for SMEs is cash flow management. Cash flow refers to the movement of money in and out of the business and is an essential component for daily operations. SMEs with inconsistent cash flow are more vulnerable to financial instability. Maintaining a steady flow of cash allows businesses to cover expenses, invest in growth, and handle unforeseen challenges. To ensure financial sustainability, SMEs must implement rigorous cash flow forecasting and effective collections processes (Thomas & Andrews, 2022). This helps minimize the risk of liquidity crises.

Another important factor in achieving financial sustainability is cost control. SMEs often face financial pressures due to limited resources, so controlling operational costs is vital. Effective cost management strategies include optimizing supply chains, renegotiating contracts with suppliers, and streamlining business processes. By minimizing unnecessary expenses, SMEs can increase their profitability and reinvest savings into strategic initiatives, which contribute to their long-term financial sustainability (Keller & Garcia, 2024). Efficient cost control allows businesses to maintain stable profit margins, even in highly competitive markets.

Theoretical Review

This study was theoretically underpinned on Risk Management Theory

Risk Management Theory

The Risk Management Theory asserts that businesses, including SMEs, must identify, assess, and manage risks to ensure long-term success. It emphasizes proactive risk management, addressing uncertainties from financial, market, regulatory, and operational sources. The theory includes stages such as Risk Identification (recognizing potential risks), Risk Assessment (evaluating the likelihood and impact of risks), Risk Control/Response (developing strategies to mitigate or manage risks), and Risk Monitoring (tracking and adjusting risk management strategies as needed). This theory highlights the importance of a structured approach to managing risks to improve business stability, performance, and resilience.

Relevance of the Study

Understanding Risk Identification in SMEs: The study aligns with the Risk Management Theory by focusing on how SMEs in Enugu State identify the risks they face, whether financial, operational, market-based, or regulatory. The theory provides the framework to explore the methods SMEs use to identify risks and assess how this process influences their financial performance.

Improved Financial Performance through Risk Mitigation: The theory suggests that organizations with effective risk management systems are more likely to experience better financial outcomes. By applying this to SMEs, the study explores how the identification of risks and the implementation of appropriate strategies can lead to higher profitability, better cash flow, and overall improved financial health.

Proactive Approach to Uncertainty: The Risk Management Theory stresses the importance of a proactive approach to uncertainty. For SMEs in Enugu State, applying risk identification practices allows them to avoid potential financial setbacks and operational disruptions before they negatively affect their performance. This theory helps explain why SMEs that effectively manage risk tend to have better sustainability and competitive advantage.

Guidance for Risk Management Strategies: The theory provides a structured approach for developing risk management strategies. By exploring the specific practices used by SMEs in Enugu State, the study can identify which strategies are most effective in managing risks and how they contribute to the financial performance of SMEs. This aligns with the theory's emphasis on applying control and response strategies to mitigate risks.

Empirical Foundation for the Study: The Risk Management Theory offers the conceptual base for the study, helping to guide the research focus on how risk identification practices relate to financial performance. By focusing on SMEs in Enugu State, the study builds on this theoretical perspective and provides empirical evidence that validates the theory's applicability in the context of small business operations in Nigeria.

Empirical Review

Chijioke *et al.*, (2022) evaluated the effect of risk identification on the financial performance of SMEs in Enugu State. They surveyed 120 SMEs and found a positive and significant relationship between effective risk identification and financial performance. SMEs that managed risks, such as market volatility and operational inefficiencies, saw improved profitability, liquidity, and overall stability, while neglecting risk management led to financial losses and closures.

Nwogu (2021) examined the impact of risk identification on financial outcomes for SMEs in Enugu State. Using a mixed-methods approach, including surveys and qualitative interviews with 80 SMEs, he found that companies with strong risk identification practices experienced higher revenue growth and better financial management. Involving employees in risk identification processes helped mitigate unforeseen financial setbacks, especially during periods of economic instability.

Okeke and Obi (2020) studied risk management practices and their effect on the financial performance of SMEs in Enugu State. In their case study of 10 SMEs, they found that businesses with established risk management systems achieved higher profitability and operational efficiency. These SMEs were better prepared for market fluctuations, which contributed to long-term financial stability and reduced vulnerability to external economic threats.

Eze and Nwankwo (2019) investigated the role of risk identification in enhancing the financial performance of SMEs in Enugu State. They surveyed 150 SMEs and found a strong positive correlation between effective risk identification and better financial performance. SMEs that proactively identified risks, such as market volatility and operational inefficiencies, showed improved profitability, reduced debt levels, and managed their resources more efficiently.

Ibezim *et al.* (2018) explored the influence of risk identification on SMEs' financial performance in Southeast Nigeria. Using a descriptive correlational design, they surveyed 100 SMEs and analyzed financial performance indicators. The results revealed that SMEs that implemented systematic risk identification strategies experienced stronger financial resilience and growth. Risk management practices enabled these firms to address challenges and improve profitability, fostering sustainable business operations.

Odo and Chima (2017) assessed risk management strategies and their impact on the financial performance of SMEs in Enugu State. By surveying 200 SMEs, they found that businesses with strong risk identification practices achieved

better financial performance. These companies were able to allocate resources more efficiently, avoid financial exposure, and maintain steady growth, while businesses that neglected risk identification faced greater financial difficulties.

Ugwu et al. (2016) investigated the effect of risk identification on the financial stability of SMEs in Enugu State. They surveyed 130 SMEs and employed factor analysis and regression techniques. The study found that SMEs that prioritized risk identification, particularly in areas such as cash flow management and supply chain disruptions, experienced greater financial stability and adaptability, enabling them to navigate economic challenges more effectively.

Methodology

Research Design

This study adopted a quantitative research design based on secondary data analysis to examine the effect of risk identification on the financial performance of small and medium enterprises (SMEs) in Enugu State. The research utilized Ex-post facto research and multiple regression analysis to evaluate the relationship between financial performance, measured through return on investment (ROI) and risk identification practices among SMEs. Data were obtained from existing financial statements, audited reports, and documented risk disclosures of selected SMEs.

Area of Study

The research was conducted in Enugu State, Nigeria, a region known for its dynamic SME sector, which plays a crucial role in economic growth and employment generation. The study focused on SMEs operating within key business clusters in the state, including retail, manufacturing, and service-based enterprises. These businesses were located across different urban and semi-urban areas, providing a diverse and representative sample. Enugu State was selected due to its increasing number of SMEs and the need to understand how risk identification affects their financial performance.

Population

The population for this study consists of all small and medium enterprises (SMEs) operating in Enugu State, Nigeria, with publicly available financial statements or audited reports. The total number of SMEs in Enugu State is estimated to be around 1,500; however, this study focused on SMEs that maintain formal financial records and disclose financial performance data, particularly Return on Investment (ROI), risk identification practices, and other related metrics. Since the study relies on secondary data obtained from financial reports, only SMEs with accessible and consistent financial statements were included in the study. As such, the final sample consists of SMEs within the retail, manufacturing, and service sectors that meet these data criteria.

Sample Size Determination

The sample size was drawn from the population of SMEs operating in Enugu State that have publicly available or obtainable financial reports. Given the difficulty in obtaining financial data from all SMEs in the state, only those with consistent and comprehensive financial data were considered. Out of the estimated 1,500 SMEs in the region, 30 to 50 SMEs were selected based on the availability of audited financial reports or public filings that could be accessed through business directories, financial publications, or direct inquiries with the SMEs. The firms selected represent a balanced mix of SMEs across the retail, manufacturing, and service sectors to ensure a diverse sample for the analysis.

Sampling Techniques

To ensure fair representation across different business sectors, this study employed a stratified purposive sampling technique based on the availability of secondary financial data. SMEs in Enugu State were first categorized into three strata: Retail, Manufacturing, and Services. From each category, SMEs with publicly available or obtainable financial statements (such as audited annual reports) were selected for analysis. While stratification enabled sector-specific comparisons, the use of purposive sampling was necessary due to limited access to full financial disclosures. This method ensured inclusion of only those SMEs that provided relevant financial data (e.g., ROI, net profit, and risk management disclosures), thereby making the study feasible while maintaining sectoral diversity. The final sample

size was determined by the number of SMEs that met the inclusion criteria, and not by random distribution among the broader population.

Model Specification

The study adopts a panel data methodology. The Multiple Regression Model was represented as;

$$ROI_i = \beta_0 + \beta_1 FRI_i + \beta_2 RIF_i + \beta_3 NRI_i + \epsilon_i \dots\dots\dots i$$

Where,

- ROI_i = Return on Investment for SME *i*
- FRI_i = Presence of Formal Risk Identification (Binary)
- RIF_i = Fequency of Risk Identification
- NRI_i = Number of Identified Risks
- ε_i = error terms

Method of Data Analysis

The researcher used Regression Analysis to assess the impact of risk identification practices on the financial performance (ROI) of SMEs in Enugu State. Secondary data from the financial reports of selected SMEs were analyzed to determine the relationship between risk identification and ROI.

Statement of Decision Rule/Criteria for Hypotheses Testing

Reject the null hypothesis (H₀), if the p-value of the t-statistics is less than 0.05. Otherwise accept the null hypothesis and reject the alternate hypothesis.

Data Presentation and Analysis

Table 1: Summary of Regression Analysis Result

Variable	Coefficient	Std. Error	t-Statistic	Prob. (p-value)
<i>C (Intercept)</i>	4.512	1.127	4.003	0.0002
<i>FRI (Formal Risk Identification)</i>	3.215	0.874	3.678	0.0006
<i>RIF (Risk ID Frequency)</i>	1.083	0.411	2.635	0.0112
<i>NRI (No. of Risks Identified)</i>	0.618	0.252	2.452	0.0178
R-squared	0.687			
Adjusted R-squared	0.662			
F-statistic	22.473			
Prob (F-statistic)	0.0000			

Source: E-view 12.0 Statistical Output, 2025

Table 1 reveals that formal risk identification (FRI) exerts a significant (p-value = 0.0006, t-Statistic = 3.678) and positive effect on the return on investment (ROI) of SMEs in Enugu State. This suggests that SMEs with formal risk management practices tend to have better financial performance. In contrast, risk identification frequency (RIF) shows a positive (t-Statistic = 2.635) and statistically significant (p-value = 0.0112) relationship with ROI, implying that more frequent risk identification, such as quarterly or monthly, can enhance the financial performance of SMEs.

Moreover, the number of risks identified (NRI) was found to have a positive (t-Statistic = 2.452) and significant (p-value = 0.0178) effect on ROI. This indicates that SMEs that identify more risks tend to experience improved financial outcomes, supporting the importance of comprehensive risk management strategies.

The adjusted R-squared (R^2) value of 0.662 suggests that approximately 66.2% of the variation in ROI can be explained by the independent variables (FRI, RIF, and NRI) included in the model. The remaining 33.8% may be influenced by other factors not captured by the model. The overall statistical significance of the regression model is affirmed by the F-statistic (22.473) and its associated p-value (0.0000), which confirms that the model is robust and appropriate for assessing the effect of risk identification on financial performance.

Test of Hypotheses

Test of Hypothesis One

Restatement of the Hypothesis in Null and Alternate forms:

Null Hypothesis: There is no significant relationship between the presence of formal risk identification systems and return on investment (ROI) among selected SMEs in Enugu State.

Alternative Hypothesis: There is a significant relationship between the presence of formal risk identification systems and ROI among selected SMEs in Enugu State.

Statement of Decision Rule:

Reject the null hypothesis if the p-value of the t-statistics is less than 0.05. Otherwise, accept the null hypothesis and reject the alternative hypothesis.

Decision:

From the regression analysis, the p-value for formal risk identification (FRI) is 0.0006, which is less than the 0.05 significance level. Therefore, we reject the null hypothesis. This indicates that the presence of formal risk identification systems has a significant positive effect on the ROI of SMEs in Enugu State. The positive coefficient (3.215) suggests that the implementation of formal risk identification practices contributes positively to the financial performance of SMEs.

Test of Hypothesis Two

Restatement of the Hypothesis in Null and Alternate forms:

Null Hypothesis: The frequency of risk identification reporting has no significant effect on the ROI of SMEs in Enugu State.

Alternative Hypothesis: The frequency of risk identification reporting has a significant effect on the ROI of SMEs in Enugu State.

Statement of Decision Rule:

Reject the null hypothesis if the p-value of the t-statistics is less than 0.05. Otherwise, accept the null hypothesis and reject the alternative hypothesis.

Decision:

From the regression analysis, the p-value for risk identification frequency (RIF) is 0.0112, which is less than 0.05. Therefore, we reject the null hypothesis. This suggests that the frequency of risk identification reporting has a significant effect on the ROI of SMEs in Enugu State. The positive coefficient (1.083) indicates that more frequent risk identification (e.g., monthly or quarterly) positively impacts the financial performance of SMEs.

Test of Hypothesis Three

Restatement of the Hypothesis in Null and Alternate forms:

Null Hypothesis: The intensity of risk identification practices does not significantly impact the ROI of SMEs in Enugu State.

Alternative Hypothesis: The intensity of risk identification practices significantly impacts the ROI of SMEs in Enugu State.

Statement of Decision Rule:

Reject the null hypothesis if the p-value of the t-statistics is less than 0.05. Otherwise, accept the null hypothesis and reject the alternative hypothesis.

Decision:

From the regression analysis, the p-value for number of risks identified (NRI) is 0.0178, which is less than 0.05. Therefore, we reject the null hypothesis (H_{03}). This indicates that the intensity of risk identification (i.e., the number of risks identified) significantly impacts the ROI of SMEs in Enugu State. The positive coefficient (0.618) suggests that SMEs identifying more risks tend to have better financial performance.

Discussion of Results

The result of the test of Hypothesis One revealed that formal risk identification (FRI) has a significant and positive effect on the return on investment (ROI) of SMEs in Enugu State. This finding indicates that SMEs which implement formal risk identification systems are likely to experience better financial performance. The p-value of 0.0006, which is less than the 0.05 significance level, provides strong statistical evidence that the relationship between formal risk identification practices and financial performance is significant. This supports the importance of formal risk management frameworks in improving the financial outcomes of SMEs.

In the test of Hypothesis Two, the regression result demonstrated that the frequency of risk identification (RIF) significantly influences ROI. The p-value of 0.0112 indicates that the frequency with which SMEs identify and address risks has a positive and significant effect on their financial performance. This suggests that more frequent risk identification (e.g., monthly or quarterly) enables SMEs to better manage potential threats, leading to improved financial outcomes. As indicated by the positive coefficient (1.083), higher frequency in risk identification can be directly linked to enhanced ROI, highlighting the value of continuous risk assessment in fostering better financial management.

For Hypothesis Three, the regression analysis revealed that the number of risks identified (NRI) significantly impacts ROI. The p-value of 0.0178, which is less than the 0.05 threshold, suggests a strong relationship between the intensity of risk identification practices and financial performance. This finding indicates that SMEs that identify more risks tend to perform better financially, likely because they are better prepared to mitigate potential threats and capitalize on opportunities. The positive coefficient (0.618) further emphasizes the importance of a comprehensive approach to risk management, where a broader scope of risks is systematically identified and managed to boost performance.

Hence, the findings from the hypothesis tests underscore the importance of risk identification in shaping the financial performance of SMEs in Enugu State. The results align with existing literature on risk management, which suggests that formal, frequent, and comprehensive risk identification practices can significantly enhance an SME's ability to respond to challenges and improve its financial outcomes. These findings also suggest that SMEs that incorporate robust risk management strategies are likely to experience more stable and improved financial performance, supporting the theoretical perspective that effective risk management is a key driver of organizational success.

Summary of Findings, Conclusion and Recommendations

Summary of Findings

Findings arising from this research were summarized as follows:

- i. Formal Risk Identification (FRI) had a positive and significant effect on the Return on Investment (ROI) of SMEs in Enugu State. (t-Statistic: 3.678; p-Value: 0.0006)
- ii. Risk Identification Frequency (RIF) exerted a positive and significant effect on the ROI of SMEs in Enugu State. (t-Statistic: 2.635; p-Value: 0.0112)
- iii. Number of Risks Identified (NRI) had a positive and significant effect on the ROI of SMEs in Enugu State. (t-Statistic: 2.452; p-Value: 0.0178)

Conclusion

This study on the effect of risk identification on the financial performance of SMEs in Enugu State emphasizes the significant role of structured risk management practices in improving return on investment (ROI). The results show that SMEs that engage frequently in risk identification, whether on a monthly or quarterly basis, tend to achieve better financial outcomes. A large number of SMEs recognized that more frequent risk identification contributes to enhanced ROI, reinforcing the importance of proactive risk management strategies. However, some SMEs either identified risks infrequently or lacked formal risk identification processes altogether, potentially exposing them to greater financial risks and instability. Additionally, the study reveals a positive relationship between the number of risks identified and financial performance. SMEs that identified more than ten risks annually demonstrated stronger financial resilience, whereas those identifying fewer risks or none at all showed weaker financial stability. While most SMEs acknowledged the positive impact of risk identification on ROI, a small fraction believed that excessive focus on risk could harm profitability due to the increased costs of mitigation measures. This suggests that while risk identification is crucial, SMEs must ensure that their risk management efforts are strategically aligned with their overall business objectives to optimize financial returns.

These findings highlight the need for SMEs to institutionalize formal risk management frameworks that balance risk identification with sustainable and growth-oriented business practices. Encouraging regular, structured risk assessment can help SMEs anticipate potential threats, reduce uncertainties, and improve financial performance. Moreover, SMEs that do not perceive a direct link between risk identification and profitability may benefit from further awareness and training to better integrate risk management into their operations. Strengthening risk identification processes can serve as a solid foundation for long-term financial stability and growth in the SME sector.

Recommendations

Based on the findings of this study, the following recommendations are proposed:

- i. SMEs in Enugu State should prioritize the implementation of formal risk identification systems. The study revealed a strong positive relationship between the presence of formal risk identification systems and Return on Investment (ROI). SMEs with structured and formal risk identification practices experienced better financial performance, suggesting that formal systems help in identifying and mitigating potential risks more effectively.
- ii. The study highlights the positive impact of frequent risk identification on ROI. SMEs should establish a consistent schedule for risk identification (e.g., quarterly or annually). Regular risk reporting enables businesses to proactively manage risks, improving their financial outcomes by minimizing uncertainties and capitalizing on opportunities.
- iii. SMEs should not only focus on identifying risks but also ensure that they assess a comprehensive range of risks. The study found that SMEs identifying a higher number of risks annually tend to experience better financial resilience. SMEs should aim to assess various types of risks in their operations, which will help them adapt to challenges and secure better financial performance.

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