Research Article

Risk Assessment and Monitoring Practices Adopted by Small and Medium Scale Entrepreneurs for Successful Business Operations in Anambra State, Nigeria

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Abstract
This study ascertained risk assessment and monitoring practices adopted by small and medium scale entrepreneurs (SMEs) for successful business operations in Anambra State, Nigeria. Two research questions guided the study and two null hypotheses were tested. Descriptive survey research design was adopted for the study. The population comprised 1,813 registered SMEs managers in Anambra State, Nigeria. A sample of 354 managers of SMEs was used through simple random sampling technique. The instrument for data collection was 22-items structured instrument. The instrument was validated by three experts. To determine the internal consistency of items in the instrument, Cronbach's alpha was used. The reliability co-efficient values of 0.83 and 0.77 for clusters B1 and B2 with an overall co-efficient value of 0.80 were obtained. Mean and standard deviation were used to answer the research questions, while t-test was used to test the null hypotheses at 0.05 alpha level. The findings of the study revealed that SMEs managers moderately adopted risk assessment and monitoring practices for their business operations in Anambra State, Nigeria. SMEs managers differed significantly in their mean ratings on the extent they adopt risk assessment and monitoring practices for their business operations in Anambra State, Nigeria based on types of industry. The study concluded that risk assessment and monitoring practices mentioned have not been fully adopted by SMEs managers for their business operations in Anambra State, Nigeria. It was recommended that management of small and medium scale enterprises should organize regular training and retraining of managers on various risk management practices that will enable them to adequately adopt different risk management practices for growth among others.
Keywords: Small and Medium Scale Entrepreneurs, Risk Assessment and Monitoring Practices, Business Operations.

Introduction
Small and medium scale enterprises (SMEs) are enterprises which are relatively small in nature compared to public limited liability companies. SMEs are the backbone of all nations and is increasingly recognized as a prime vehicle for economic development of both developed and developing nations. Similarly, SMEs are noted for their contributions to innovation and ability to impact on growth. According to Adebiyi *et al.,* (2017), small and medium scale enterprises are different kinds of firms that can be found in different business activities across the country. They include artisans producing local agricultural implements, the coffee shop owners, tailor shop owners, iron fabricators, road side mechanics, small transport firm, the internet café, small engineering or software firms and medium-sized automotive parts manufacturers. Despite its importance, many SMEs start-ups do not survive for more than five years and a fewer number develop into high-growth firms. In consonance, Smith and Watkins (2012) observed that small and medium scale enterprises operate in the same environment as their larger counterparts, but without the associated benefits such as adequate capital and extended human resources of larger organisations. This obvious disadvantage has led to the collapse and closure of many SMEs in Nigeria and Anambra State particular, and beyond due to inability to manage risk. Anambra State is one of the 36 states in Nigeria located in south-eastern Nigeria. The state is influenced by large concentration of industries that are promoted by successful industrialists. The state is known for the success recorded in commercial activities which include small and

medium scale enterprises. The state is home to various entrepreneurship ventures, ranging from manufacturing, construction, merchandise and service businesses hence it was considered appropriate for the study. Apart of SMEs contributions to the state, most of the SMEs in the state, instead of succeeding, a large number of them fail and fold up not because they do not have the necessary capital and machinery to stay afloat, but because most of them could not adopt some form of loss prevention and reduction measures and formal risk management practices. Vast majority of the SMEs ignore risk treatment. This means that knowledge of risk assessment and monitoring practices could be a step in implementing formal risk management and a critical factor.

Risk assessment deals with identifying, qualifying, quantifying and prioritizing risks. Risk assessment consists of several processes which include risk identification, relevant risk analysis, risk evaluation among others. Torabi *et al.,* (2016) saw risk assessment as an assessment tool currently used generally which consist of the value at risk (VaR) developed by JP Morgan to include risk adjusted return (RAR), capital asset price model (CAPM), weighted cost of capital (WACC), measures of standard deviation, variance, covariance or correlation coefficient, coefficient of variation, beta, sensitivity analysis, correlation matrices, decision theory and decision trees, net present value (NPV), time series analysis, elaboration of performance and the use of financial ratios for analysis among others. Risk assessment can be a mix of quantitative, semi-quantitative or qualitative approaches (Watt, 2007). Onwubuya and Ikechukwu (2023) revealed that risk assessment and risk analysis have a beneficial impact on the financial performance of SMEs. Agyakwa-Baah (2009) stated that some small and medium enterprises in Anambra State do not perform risk assessment and management methods as part of management. Risk assessment practices can also be used with other supporting documents to demonstrate regulatory compliance through risk monitoring. Risk monitoring is an integral part of routine management reporting. The level of control by SMEs must be appropriate to risks faced. Risk monitoring aims at observing, ensuring compliance, measuring, taking corrective actions, as defined in the risk management plan. It encapsulates the implementation, compliance and management of risk response plans, control the risks, update the risk register, performance of additional risk identification, analysis and response planning and reporting (Mulcahy, 2014). Onwubuya and Ikechukwu (2023) reported that risk monitoring keeps track of identified risks, residual risks and new risks. Ajayi and Osasona (2023) revealed a positive and significant relationship between monitoring risk techniques and SMEs performance. From the forgoing, there must be an effective monitoring and communication processes within the SMEs to handle risks.

The moderator variable used in this study of risk assessment and monitoring practices is types of industry. Types of industry here refers to the nature of productive activity engaged in by an entrepreneur and includes service, construction and manufacturing. The three types of industry abound for entrepreneurs (service, construction and manufacturing) with their varied ability in risk management practices. Service SMEs refer to those SMEs that specialize in rendering services to customers rather than producing physical commodities. These include schools, law firms, restaurants and bars, hotels, laundry firms and so on. Construction SMEs refer to those SMEs that focus mainly on construction activities. They include SMEs that engage in craft, metal work, block molding, upholstery, among others. Manufacturing SMEs refer to those SMEs that specialize in the manufacture of physical commodities. Adebiyi *et al.,* (2017) found that the entrepreneurial risk management practices for successful establishment of small and medium scale enterprises vary based on the type of activities engaged by the entrepreneurs. Onwubuya and Ikechukwu (2023) noted that there is a significant difference between risk assessment techniques and the financial success of the state's SMEs irrespective of the type of industry. Mehmood *et al.,* (2017) stated that risk monitoring has a positive significance on project performance irrespective of the types of industry.

However, the inability of owners of SMEs to implement risk management practices such as risk assessment and monitoring practices have led to factors leading to a reduction in the sustainability of SMEs (Falkner and Hiebl, 2015). The absence of risk management schemes in the midst of countless risks remains a typical pattern among SMEs, a factor that can be strongly linked to the elevated level of disappointment (Onyebu, 2014). Therefore, the adoption of risk assessment and monitoring practices by SMEs will improve business success based on their different enterprise type engaged in. This study ascertained the extent to which small and medium scale entrepreneurs in Anambra State, Nigeria adopted risk assessment practices for their business operations and risk monitoring practices for their business operations.

Statement of the Problem
Given the importance of SMEs to economic growth and development, attention to the issue of SME risk management practices becomes quite essential. SMEs have little guidance on how best to manage risk and

where to turn for advice. Adebiyi *et al.,* (2017) found that while most SMEs adopt some form of loss prevention and reduction measures, they do not engage in formal risk management practices and vast majority ignore risk treatment. Thus, it means that knowledge of risk management practices could be a step in implementing formal risk management and a critical factor. This could have a beneficial effect on the general performance of small and medium enterprises in Anambra State, Nigeria. The problem of this study is that if this ugly situation is not taken into consideration, SMEs will continue to experience difficulties in absorbing and coping with risks related pressures.

Research Questions
The following research questions guided the study:
1) To what extent do small and medium scale entrepreneurs adopt risk assessment practices for their business operations in Anambra State?
2) To what extent do small and medium scale entrepreneurs adopt risk monitoring practices for their business operations in Anambra State?

Hypotheses
The following null hypotheses were tested at 0.05 level of significance:
1) Small and medium scale entrepreneurs in Anambra State, Nigeria do not differ significantly in their mean ratings on the extent they adopt risk assessment practices for their business operations based on type of industry.
2) Small and medium scale entrepreneurs in Anambra State, Nigeria do not differ significantly in their mean ratings on the extent they adopt risk monitoring practices for their business operations based on type of industry.

Method
The study adopted descriptive survey design. The population of the study comprised 1,813 registered SMEs managers from services, construction and manufacturing businesses in Anambra State, Nigeria. A sample of 354 managers of SMEs from services, construction and manufacturing businesses was used through proportionate stratified random sampling technique. Data were collected using a 22-items structured questionnaire. The instrument was structured on a five-point rating scale of Very Highly Adopted (5), Highly Adopted (4), Moderately Adopted (3), Lowly Adopted and Very Lowly Adopted (1). The structured questionnaire was validated by three experts-two in business education and one in measurement and evaluation all from Nnamdi Azikiwe University, Awka. Their comments enhanced the face validity of the instrument. To establish the internal consistency of the instrument, a trial-test was conducted. Data collected in the pilot test were analyzed using Cronbach's alpha to determine the internal consistency. Reliability coefficient values of 0.83 and 0.77, for risk assessment and risk monitoring practices respectively with an overall coefficient value of 0.80.

Out of the 354 copies of the questionnaire distributed to the respondents in their organizations through direct approach which facilitated a response rate, all the copies (representing 100 percent) were retrieved without an attrition rate and used for data analysis. Data collected regarding the research questions were analyzed using mean and standard deviation while Analysis of Variance (ANOVA) was used to test the null hypotheses at 0.05 level of significance. In order to determine the adoption of risk assessment and monitoring practices by small and medium scale entrepreneurs for successful business operations in Anambra State, a decision rule based on real limit of numbers was used such that ratings between 4.50-5.00 were regarded as very highly adopted, items with mean ratings of 3.50-4.49 were considered as highly adopted, items with mean ratings of 2.50-3.49 were considered as moderately adopted. Furthermore, items with mean ratings of 1.50-2.49 and 1.00-1.49 were considered as lowly adopted and very lowly adopted respectively. In testing the null hypotheses, where the calculated p-value was less than the stipulated level of significance (0.05), it meant that there was a significant difference and the null hypothesis was rejected. Conversely, where the calculated p-value was greater than or equal to the level of significance (0.05), it meant that there is no significant difference and the hypothesis is not rejected. However, where there was a disagreement among the three groups, the Scheffe post hoc test was conducted to determine the group in which such disagreement emanated from.

Results
Research Question 1
To what extent do small and medium scale entrepreneurs adopt risk assessment practices for their business operations in Anambra State, Nigeria?

Table 1. Mean ratings of SMEs managers on the extent they adopt risk assessment practices for their business operations in Anambra State, Nigeria (N=354).

S/N	Risk assessment practices	x̄	SD	Remarks
1	Categorizing risks into levels for further analysis	2.50	0.51	Moderately adopted
2	Assessing uncertainty of loss	2.60	0.50	Moderately adopted
3	Using quantitative methods to assess risks	1.70	0.58	Lowly adopted
4	Developing control measures	2.69	0.49	Moderately adopted
5	Assessing every risk differently	2.44	0.53	Lowly adopted
6	Assessing hazards that could negatively impact an organization's ability to conduct business	3.24	0.48	Moderately adopted
7	Assessing inherent business risks and provide measures	4.20	0.45	Highly adopted
8	Selecting suitable corrective actions for the risk identified	2.50	0.51	Moderately adopted
9	Evaluating risks	2.38	0.55	Lowly adopted
	Cluster mean	**2.69**		**Moderately adopted**

Data in Table 1 reveal that one item is highly adopted with mean rating of 4.20. Five items are moderately adopted with mean ratings ranging from 2.50 to 2.69, while the remaining two items are lowly adopted with mean ratings of 2.38 and 2.44. The cluster mean score of 2.69 indicates that risk assessment practices are moderately adopted by small and medium scale entrepreneurs for their business operations in Anambra State, Nigeria. The standard deviation of 0.45 to 0.58 shows that respondents are not wide apart in their mean ratings which indicate homogeneity.

Research Question 2
To what extent do small and medium scale entrepreneurs adopt risk monitoring practices for their business operations in Anambra State, Nigeria?

Table 2. Mean ratings of SMEs managers on the extent they adopt risk monitoring practices for their business operations in Anambra State, Nigeria (N=354).

S/N	Risk monitoring practices	x̄	SD	Remarks
1	Monitoring risks occurrences	3.30	0.59	Moderately adopted
2	Monitoring different types of risks	2.20	0.66	Lowly adopted
3	Monitoring catastrophic that result to risks	2.70	0.64	Moderately adopted
4	Monitoring potential losses that could affect business success	3.69	0.47	Highly adopted
5	Monitoring training given to employees on risk mitigation	2.54	0.53	Moderately adopted
6	Monitoring measure for efficiency of corrective actions	3.24	0.60	Moderately adopted
7	Monitoring potential risks not identified in the previous steps	3.60	0.49	Highly adopted
8	Monitoring whether strategies are effective or not	2.40	0.61	Lowly adopted
9	Monitoring information that can assists with making effective decisions in advance of risks occurrence	3.58	0.51	Highly adopted
10	Monitoring if risk responses have been implemented as planned	3.56	0.53	Highly adopted
11	Monitoring if risk response actions are as effective as expected	3.50	0.55	Highly adopted
12	Monitoring if risk exposure has changed from its prior state	3.60	0.49	Highly adopted
13	Monitoring if proper policies and procedures are followed	3.40	0.56	Moderately adopted
	Cluster mean	**3.18**		**Moderately adopted**

Data in Table 2 reveal that items five are highly adopted with mean ratings ranging from 3.50 to 3.69. Five items are moderately adopted with mean ratings ranging from 2.54 to 3.40, while the remaining two items are lowly adopted with mean ratings of 2.20 and 2.40. The cluster mean score of 3.18 indicates that risk monitoring practices are moderately adopted by small and medium scale entrepreneurs for their business operations in Anambra State, Nigeria. The standard deviation of 0.47 to 0.66 shows that respondents are not wide apart in their mean ratings which indicate homogeneity.

Hypothesis 1
Small and medium scale entrepreneurs in Anambra State, Nigeria do not differ significantly in their mean ratings on the extent they adopt risk assessment practices for their business operations based on type of industry (service, construction or manufacturing).

Table 3. Summary of ANOVA on the extent they adopt risk assessment practices for their business operations based on type of industry (service, construction or manufacturing).

	Sum of squares	df	Mean square	F	P-value	Remarks
Between groups	3.336	2	2.168	15.029	.001	Significant
Within groups	4.839	351	2.025			
Total	**8.175**	**353**	-			

As shown in Table 3, the F-ratio (df: 2/351) is 15.029 and the P-value (.001) is less than the stipulated 0.05 level of significance (P-value < alpha level). It reveals that there is a significant difference in the mean ratings on the extent they adopt risk assessment practices for their business operations based on type of industry. Therefore, the null hypothesis is rejected.

Table 4. Scheffe post hoc test on the extent they adopt risk assessment practices for their business operations based on type of industry (service, construction or manufacturing).

Type of industry	Type of industry	Mean difference	P-value	Remarks
Service	Construction	-.27474*	.000	Significant
	Manufacturing	-.25234*	.000	
Construction	Service	-.01261*	.000	
	Manufacturing	.25234	.002	
Manufacturing	Service	.01261*	.000	
	Construction	.27474	.002	

As indicated by the post hoc test (Scheffe test) in Table 4, there is a significant difference on the extent risk assessment practices are adopted by managers of SMEs in construction, those in manufacturing and service. It also shows that small and medium scale managers in construction are significantly higher than those in manufacturing.

Hypothesis 2
Small and medium scale entrepreneurs in Anambra State do not differ significantly in their mean ratings on the extent they adopt risk monitoring practices for their business operations based on type of industry (service, construction or manufacturing).

Table 5. Summary of ANOVA on the extent they adopt risk monitoring practices for their business operations based on type of industry (service, construction or manufacturing).

	Sum of squares	df	Mean square	F	P-value	Remarks
Between groups	4.164	2	1.082	15.029	.001	Significant
Within groups	8.187	351	1.064			
Total	**12.351**	**353**	-			

As shown in Table 5, the F-ratio (df: 2/351) is 15.029 and the P-value (.001) is less than the stipulated 0.05 level of significance (P-value < alpha level). It reveals that there is a significant difference in the mean ratings on the extent they adopt risk monitoring practices for their business operations based on type of industry. Therefore, the null hypothesis is rejected.

Table 6. Scheffe post hoc test on the extent they adopt risk monitoring practices for their business operations based on type of industry (service, construction or manufacturing).

Type of industry	Type of industry	Mean difference	P-value	Remarks
Service	Construction	-.10926*	.000	Significant
	Manufacturing	-.22757*	.000	
Construction	Service	-.11831*	.000	
	Manufacturing	.22757	.760	
Manufacturing	Service	-.11831*	.000	
	Construction	.10926	.760	

As indicated by the post hoc test (Scheffe test) in Table 6, there is a significant difference on the extent risk monitoring practices are adopted by managers of SMEs in manufacturing with those in construction and service. It also shows that small and medium scale managers in manufacturing are significantly higher than those in construction.

Discussion of Findings
Findings of the study revealed that small and medium scale managers moderately adopted risk assessment practices for their business operations in Anambra State, Nigeria. This signifies a moderate adoption of risk assessment practices. This indicates that managers of SMEs in Anambra State did not give adequate attention to effective risk management. This finding is in line with Onwubuya and Ikechukwu (2023) who revealed that risk assessment and risk analysis have a beneficial impact on the financial performance of SMEs. The findings agreed with Agyakwa-Baah (2009) who stated that some small and medium enterprises in Anambra State do not perform risk assessment and management methods as part of management.

The findings of the study further revealed that there was a significant difference in managers' mean ratings on the extent they adopted risk assessment practices for their business operations in Anambra State, Nigeria based on type of industry. These findings agree with Onwubuya and Ikechukwu (2023) that there is significant difference between risk assessment techniques and the financial success of the state's SMEs irrespective of the type of industry. The reason for the similarities in test of hypotheses is probably because most of the SMEs managers focused on some form of loss prevention and reduction measures. They do not engage in formal risk assessment practices and vast majority ignore risk treatment. The reason for determining extent managers' adoption of risk identification is because they are the ones who should record and file easily, accessible, official documents on the risk assessment process for small and medium-scale enterprises. This difference in mean ratings could be as a result of their inability to take note of details on potential hazards, their associated risks and plans to prevent the hazards.

Findings of the study also revealed that small and medium scale managers moderately adopted risk monitoring practices for their business operations in Anambra State, Nigeria. This signifies a moderate adoption of risk monitoring practices. This indicates that managers of SMEs in Anambra State did not give effective monitoring within the SMEs to handle risks. This finding is in line with Onwubuya and Ikechukwu (2023) who revealed that risk monitoring keeps track of identified risks, residual risks and new risks. The findings agree with Ajayi and Osasona (2023) who revealed a positive and significant relationship between monitoring risk techniques and SMEs performance. The findings of the study further revealed that there was a significant difference in managers' mean ratings on the extent they adopted risk monitoring practices for their business operations in Anambra State, Nigeria based on type of industry. These findings agree with Mehmood *et al.,* (2017) that risk monitoring had a positive significance on project performance irrespective of the type of industry. The reason for the similarities in test of hypotheses is probably because most of the SMEs managers could not provide information that assists with making effective decisions in advance of the risks occurring. The reason for determining managers' adoption of risk communication is because they are in a better position to monitor risk and provide suitable solutions for the success of the SMEs. This difference in mean ratings could be as a result of their inability to ensuring the execution of risk plans and evaluating their effectiveness in reducing risks.

Conclusion
Based on the findings of this study, it is concluded that risk assessment and monitoring practices have not been fully adopted by small and medium scale managers for their business operations in Anambra State, Nigeria. The adoption of risk assessment and monitoring practices by SMEs managers will help to ensure efficiency in the performance of the SMEs.

Recommendations
Based on the findings of this study, the following recommendations are made:
- ✓ Management of small and medium scale enterprises should organize regular training and retraining of managers on various risk management practices that will enable them to adequately adopt different risk management practices for growth.
- ✓ Managers of small and medium scale enterprises should establish various risk management practices levels which will make for sustainability, development and smooth running of their businesses.
- ✓ There is need for small and medium scale managers to adopt risk assessment and monitoring practices mentioned, among others to reduce having difficult experience in absorbing and coping with risks related pressures hence, develop ability to deal with all forms of risks faced by their businesses.

References
1. Adebiyi, A.J., Banjo, H.A. and Regin, O.O.O. 2017. Performance of small and medium scale enterprises in Lagos State: The implication of finance. Acta Universitatis Danubius, 13(5): 72-83.

2. Agyakwa-Baah, A. 2009. A study into risk assessment and management practices within Ghanaian medium and large construction organisations. Unpublished M.Sc. Project Management Dissertation, Built Environment Department, Sheffield Hallam University, United Kingdom.

3. Ajayi, L.B. and Osasona, A.V. 2023. Effects of risk control techniques on SMEs performance in Ekiti State, Nigeria. Nigerian Journal of Banking and Financial Issues, 9(1): 33-43.

4. Falkner, E.M. and Hiebl, M.R. 2015. Risk management in SMEs: A systematic review of available evidence. The Journal of Risk Finance, 16(2): 122-144.

5. Ikelegbe, S. and Udeh, R. 2021. Business risk management practices adopted by entrepreneurs for business success in Delta State. Research Journal of Management Practice, 1(2): 1-7.

6. Mehmood, M.S. and Sheraz, I., Mehmood, A., Mujtaba, B.G. 2017. Empirical examination for operational and credit risk perspective–a case of commercial banks of Pakistan. International Journal of Academic Research in Business and Social Sciences, 7(6): 303-314.

7. Mulcahy, R. 2014. Risk management: Tricks of the trade for project managers. Hopkins, MN: RMC.

8. Onwubuya, U.N. and Ikechukwu, C.O. 2023. Effect of risk assessment practices on the financial performance of small and medium scale enterprises (SMEs) in Anambra State. International Journal of Education and Evaluation, 9(6): 41-50.

9. Onyebu, C.M. 2014. The role of entrepreneurial skills in academic performance: A case study of selected universities in Abia State, Nigeria. Review of Public Administration and Management, 4(8): 17-26.

10. Smith, Y. and Watkins, J.A. 2012. A literature review of small and medium enterprises (SMEs) risk management practices in South Africa. Africa Journal of Business Management, 6(21): 6324-6330.

11. Torabi, S.A., Giahi, R. and Sahebjamnia, N. 2016. An enhanced risk assessment framework for business continuity management systems. Safety Science, 89: 201-218.

12. Watt, J. 2007. Strategic risk management for small businesses. In: Reuvid, J., (Ed.)., Managing business risk 2nd edition–a practical guide to protecting your business. London–Philadelphia: Kogan Page.