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The Impact of Insurgency and Porous Border on the Performance Micro, Small and Medium Enterprises in Adamawa North Senatorial Zone

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Abstract

This study was conducted to examine the effect of insurgency and porous border on the performance of MSMEs in Adamawa north senatorial district. The study adopts cross-sectional survey research design based on the population of the study is 3075 registered MSMEs in Adamawa north senatorial district. The sample size of 354 was determined using Taro Yamane formula where convenient sampling technique was employed for selecting the participants. The data for the study was collected using structured self-administered questionnaire which was analyzed using Structural Equation Modelling with SmartPLS software. The study found that both insurgency and porous border have significant negative effect on the performance of SMEs in Adamawa state of Nigeria. Based on the finding, it is recommended that MSMEs in northern Adamawa state should develop and implement safety protocols for employees including evacuation plans, secure communication systems and regular safety drills, which are paramount during emergency. It is further recommended that the enterprises should comply with all relevant regulations and trade agreements governing cross-border trades applicable in Nigeria which includes complying with import and export regulation and local business laws applicable in neighboring countries. Also, government should support the MSMEs that need to relocate to other parts of the state due to intense insurgent situation in some other parts through aids for setting up in new location, access to new markets or temporary business premises.

Keywords: Insurgency; porous border; MSMEs performance.

Introduction

Throughout the world, the rising tide of insecurity has posed a challenge to businesses and economic activity of every country especially the developing nations including Nigeria (Adegoriola & Adolpus, 2021). Many economies around the world owe a lot to the expansion, modernization, and industrialization surges offered by small firms (Ibrahim et al., 2023). However, for a variety of reasons, Nigeria's MSMEs have failed to meet expectations. Internal variables such as communal unrest among inhabitants, as well as external forces such as the country's porous borders and continual terrorist assaults, are examples of these (Kalu & Onuoha, 2023). As a result, the situation in the country's northeast is deteriorating. The rebels' unrelenting strikes have killed many people, displaced many more, and caused some MSMEs to close their doors (Onyeizugbe et al., 2018).

For decades, Nigeria has been fighting a variety of insurgency-related internal crises, societal turmoil, and criminal activity. On the other hand, insurgency has evolved from regular social disturbance in the past decade, impacting both the everyday lives of residents and the ability of businesses to survive (Asogwa et al., 2022). The northeastern states are among the most insecure in the world due to the prevalence of insurgencies like Boko Haram (Onyeizugbe et al., 2018). The region's small enterprises have seen a decline in performance, and sustainability due to the insurgency actions (Faluyi et al., 2019). This is because businesses rely heavily on customer spending, which is likely to plummet when individuals experience insecurity at home, at work, and in social events as a result of insurgent attacks (Onyeizugbe et al., 2018). Additionally, Inuwa and Muhammad (2019) emphasized that the insurgency has had a significant impact on small businesses, resulting in a decline in earnings, productivity, sales, and employee retention rates. Consequently, MSMEs in Nigeria faced an unfavorable operating environment due to the occurrence of insurgent situations (Asogwa et al., 2022).

Furthermore, lack of effective border patrols is one of several causes that have long been blamed for the grave dangers to Nigeria's national security (Oladopo et al., 2021). Some claim that the country's borders were too open, allowing weapons, ammunition, and illicit or counterfeit commodities to flow in unchecked (Okunade & Oni, 2021). Any nation's territorial integrity can be safeguarded by ensuring the security of its borders, regardless of their location. This is because, without secure borders, illegal goods and weapons can easily enter the country, causing tax revenue to be lost (Yahaya et al., 2021). In the interest of regional and continental integration, porous borders facilitate the illegal movement of people and goods, which in turn leads to communal conflict, which disrupts businesses and results in heavy fines from the authorities (Abdullahi & Gawi, 2021).

Although insecurity in Adamawa State is nothing new, it has recently taken on new dimensions, threatening the livelihood of residents through the closure of companies and the loss of jobs. This study is motivated by the third executive order signed by the governor of Adamawa State to address the

persistent crimes in the state. The governor is concerned about the criminal activities that are disrupting the peace in the state (Ahmed, 2022). No responsible government, will stand by and let criminal activity disrupt the state's tranquility. As a result, insecurity has become a significant concern in Adamawa, Borno, and Yobe states all located in the northeast (Abdullahi, 2023). In response, the state administration has implemented a number of policies aimed at reestablishing calm across the state. Nevertheless, the Adamawa State government's actions to address insecurity in the state have unintended consequences that impact other aspects of life. This is particularly true for MSMEs, since they face restrictions on operating time and limited access to resources, among other issues. Against this background, this study was motivates to investigate the impact of insurgency and porous border on performance of MSMEs in Adamawa state in Nigeria with reference to the state's north senatorial district as it is the most affected part of the state with insecurity as well as border businesses.

Research Questions

i. Does insurgency have significant influence on the performance of MSMEs in Adamawa state?
ii. Does porous border have significant influence on the performance of MSMEs in Adamawa state?

Conceptual Framework

This segment presents the literature review that supports the conceptualization of the research content. The segment entails the concepts of insurgency, concept of porous border and the concept of MSMEs' performance. These concepts are categorically presented as follows;

Concept of the Performance of MSMEs

SMEs performance was conceptualized as the expansion of dynamic resource system through enhanced level of business returns by the firm that is associated with flexibility, speed, risk taking and innovation (Onyeizugbe et al., 2018). In addition, MSMEs performance refers to their ability to generate larger market share, distribute returns to investors, achieve high productivity, generate revenue and withstand fierce competition (Onuoha et al., 2022). As part of their target to achieve a greater performance, the MSMEs need to be profitable by making efforts to meet their financial goals and objectives (Ogunmuyiwa, 2022). In simpler terms, been profitable refers to the financial outcome of all the efforts involved in managing a firm, including the development and execution of plans as well as the supervision of many operational aspects such as human resources, accounting, production, and marketing (Nwagabala et al., 2022). The performance is measured using perimeters such as profits, sales turnover, employees, level of technology adoption, market shares among others (Asogwa et al., 2022). This means there is no standard measure of MSMEs performance because neither of these options presents itself as the most appropriate measure (Nwagabala et al., 2022). Also,

Tahir and Inuwa (2019) viewed MSMEs performance in three measures, which include sales revenue, business expansion and profit growth.

Concept of Insurgency

Insurgency is a dubious act of some group of people who reject the authority of their country's government (Adewusi & Jibril, 2022). In it also considered as a political movement aimed at realizing specific political goal (Abbas & Mohammed, 2016). Unequal distribution of resources and power across various domains of society, such as the economy, politics, religion, and sociocultural aspects, can potentially give rise to insurgency (Nwagabala et al., 2022). Insurgency has had a severe impact on businesses, especially smaller ones, in Nigeria's northern area. Many of these businesses have been compelled to shut down or move their operations due to the activities of Boko Haram insurgents (Oriazowanlan & Erah, 2019). Notwithstanding the diligent endeavours of the government, people, and NGOs, insurgency remains thriving in Nigeria. The Boko Haram insurgency and the farmers-herdsmen conflict are the primary insurgencies responsible for environmental instability in Nigeria, namely in the northeast region. Regrettably, neither the Nigerian government nor its citizens have gleaned any lessons from the Boko Haram insurgency, despite its intended purpose of imparting knowledge on the advantages of peaceful cohabitation, increased vigilance, and heightened security awareness (Asogwa et al., 2022). Nigeria is classified as one of the world's politically volatile nations, primarily because of the long-standing and persistent farmers-herdsmen conflict. Abbas and Mohammed (2016) stated that the increase in criminal activities, such as the farmers-herders conflict and Boko Haram, has negatively impacted business activity in Nigeria. For the purpose of conceptualization in this study, Boko-haram insurgency conflicts was briefly discussed since it's the tremendous insurgent crisis disturbing the northestern part of the country where the area of this study is located.

Concept of Porous Borders

Porous border is a situation where the country's borders are opened to the unofficial and unlawful movement of people, products, and ammunition (Abdullahi & Gawi, 2021). Nevertheless, borders demarcate the legal limitation of one nation's territory or political unit relative to another; they are the areas over which governments have complete and legitimate sovereignty. Therefore, a porous border is one that lacks a solid security perimeter to govern who can enter an independent nation's territory, which allows commodities, people, and services to move freely across the border (Okunade & Oni, 2021). As a component of national security, border security ensures and defines the sovereignty of the nation, making it a crucial component of security. As a result, the permeability of Nigeria's borders has made the spread of terrorist activities more likely, which will hinder the country's ability to foster entrepreneurship (Mboto et al., 2021). The immigration and customs authorities in Nigeria do a poor job of securing the country's borders with Niger, Cameroon, the Benin Republic, Burkina Faso, and Mali. As a result, illegal migrants are able to enter the country freely, and

criminals are able to suppress businesses and other economic activities (Yahaya & Zango, 2020). In a similar vein, Onyeizugbe et al. (2018) stated that foreign rebels are able to easily penetrate Nigeria due to the inadequately maintained border security system. Because of lax border control, the organisation has been able to move weapons and set up safe havens in the North East, making the situation there particularly perilous (Onyeizugbe et al., 2018).

Empirical Review

Numerous studies were conducted in the area of insurgency and porous border in different contexts around the globe. Notable among them include Ibrahim et al. (2023) which assessed the impact of some external business environment on Small and Medium Enterprises of Kaduna state of Nigeria. Primary data was collected from 400 sample drawn from 904 SMEs in the state while multiple regression analysis was used to test the hypotheses of the study. The finding revealed that insurgencies in the state have significant negative effect on SMEs' sales revenue, while government tax policy was positively significant. Also, government/ institutional support were insignificant. In the same vein, Ekoja et al. (2022) investigate the impact of Kaduna state insurgencies on SMEs entrepreneurial ventures in the state. Primary data was collected from the sample of 225 top managers of the enterprises drawn from the population 2670 registered SMEs in Kaduna metropolis, while data were analyzed using Pearson Product Moment Correlation and linear regression. The study found that insecurity insurgencies in Kaduna state significantly deterred the enterprises' performance that leads to their failure and also reduced rate of establishment of new ventures.

Similarly, Asogwa et al. (2022) assess how security threats affect the long-term viability of SMEs in Nigeria. Secondary data on Boko Haram attacks, kidnappings, and armed robberies operations was sourced annually from the Nigeria Bureau of Statistics and the Global Terrorism Index (GTI). The analysis and testing of hypotheses were based on ordinary least squares (OLS) multiple regression. The findings demonstrated that SMEs in Nigeria are significantly and negatively impacted by security concerns. Also, Similarly, Kadir et al. (2022) examines the implications of growing insurgencies in Sokoto state as it affects the operation and survival of SMEs in Birni Local government area of the State. The study employed Purposive random selection to select 109 entrepreneurs within the study area. Questionnaires were employed to elicit information from the selected samples while descriptive statistics used to analyze data collected. Findings from the study revealed that incessant attacks by Bandits and Boko haram have impacted negatively on the smooth operations of MSMEs in the study area. The current research extends the study to Adamawa state.

Furthermore, Oladapo et al. (2021) investigate the influence of porous border on Nigerian economic activities and securities. Relevant literatures were reviewed in other to come up with the writers' opinion on the topic. The gathered information from prior literatures was assesses through content analysis. The study concludes that border porosity in Nigeria. the study conclude that Nigerian economy is suffering from porous borders as illegal entry of goods denied country from collecting taxes while citizens are facing problems of buying adulterated

goods. The study analyzed information based on national level. However, the level of porosity differs across border, which is why the current study makes the case of Adamawa state. In addition, Abdullahi and Gawi (2021) looked at the northeastern border of Nigeria with Cameroon to see how border porosity affected Nigeria's national security. The study used a secondary data from books, journals, articles, published and unpublished works, and online resources to support its qualitative methodology. The study's findings showed that border porosity caused food shortages in the northeast, which in turn crippled businesses and put individuals in significant trouble as they fought for food. Because it shows how border porosity hinders commercial activity in the state that borders Cameroon, the study is thought to be pertinent to the present investigation. Adamawa State will be a good place to study how porous borders impact the performance of MSMEs because it shares a border with Cameroon. Also, Abiodun (2021) investigate the impact of Nigeria's land border closure on border community, economy and security of West African sub-region and the Nigerian state. Primary data was collected from the populace in the border and interview conducted with some responsible individuals. Correlation and thematic analysis were conducted. Findings revealed that border closure has crippled the economic activities border communities who used to be dependent on border trades and activities for survival are now living in abject poverty due to the closure of their small businesses. Hence, it has negative consequence on their SMEs. Adamawa state is one of the Nigerian states close to a border, which makes it highly important to investigate the impact of porous borders on their MSMEs performance.

Securitization Theory

The Conflict and Peace Research Institute's establishment prompted the Copenhagen School, under the direction of Barry Buzan, to develop the securitization hypothesis in the 1990s. This text elucidates the procedure by which policymakers formulate policies concerning the security of the nation. It is a subdivision of the theory of international relations. According to Eroukhmanoff (2018), it is crucial to promptly handle political obstacles, which are seen as significant security concerns. Disregarding them will result in perilous, ominous, and alarming outcomes for the individual who possesses the social and institutional authority to elevate the matter beyond the realm of politics. Illustrating the case of immigration, the matter has transitioned from having minimal political importance to becoming a pressing concern that necessitates significant measures, such as enhancing border security, owing to its potential to jeopardise national security (Abdullahi & Gawi, 2021). In view of that, merely categorizing a circumstance as a security issue is sufficient to classify it as a security problem. This undermines the commonly accepted belief in security.

Consequently, securitization theory is the foundation of the current study. The reason for this is because border porosity and insurgency are regarded as a fundamental national policy in Nigeria, aimed at safeguarding the country's integrity. The security of Nigeria is jeopardised by illegal migration, which presents an opportunity for MSMEs to perform better. Moreover, the economic endeavours of local firms in border areas, especially small businesses, are

influenced by regional security issues associated with the illicit trafficking of goods as well as continuous insurgent situations derived by Boko Haram and other militant groups. Therefore, businessess performance is impacted as they face the possibility of forfeiting their corporate citizenship in the community, notwithstanding any immediate profits they may generate. Hence, the situation becomes detrimental to the enterprises. In this regard, Securitization theory underpins the impact of both porous border and insurgency on SMEs performance in the study area.

METHODOLOGY

This study adopted cross-sectional survey research design to provide a blue-print for achieving the research objective. It is a survey because it entails going to the field for data collection, while it is cross-sectional because it involves one time data collection. The population of this study are 3075 MSMEs that are registered with Adamawa state ministry of commerce and industry at September 2023. The sample size of the study was determined using Taro Yamane formula of sample determination to arrive at 354 sampled MSMEs, which were selected using convenient sampling technique in Adamawa state. Thus, the method of data collection was primary method using questionnaire, while the inferential analysis was done using Partial Least Square-Structural Equation Modelling (PLS-SEM).

Model Specification

$MP = \beta_0 + \beta_1 INS_i + \beta_2 PRB_i + \mathcal{E}$

Where: MP = MSMEs Performance; INS = Insurgency; PRB = Porous Border and $\mathcal{E}$ = error term.

Presentation of Results

This study employed structural equation modeling with the PLS-SEM approach to test the hypotheses in order to achieve the stated objectives. In this regard, two stages of PLS-SEM were used which include Measurement Model (MM) known as outer model and the second one is the Structural Model (SM) which defines the relation among endogenous and exogenous latent constructs (Hair et al., 2016). Accordingly, the measurement model was assessed using five measurement criteria which include indicator reliability, internal consistency reliability, convergent validity, discriminant validity, and model fit evaluation, while the structural model was used for testing the study's hypotheses.

Indicator Reliability, Internal Consistency Reliability and Convergent Validity

Indicator reliability was assessed using outer loading. The outer loadings of each latent construct are used to assess the reliability should be greater than 0.70 (Hair et al., 2016). However, it is claimed that an indicator with the loading of 0.4 could be retained if its deletion would reduce the composite reliability. Based on the aforesaid thresholds, this study retained 14 items out of the total 17 items of the study by deleting 3 items (MP2, MP5 and INS2)

because they failed to meet the stated criteria. Meanwhile, MP6 and MP7 were retained because their deletion reduced the composite reliability despite being below 0.7. Also, internal consistency was assessed using composite reliability in PLS based on the criteria of 0.60 (Hair et al., 2013). Furthermore, convergent validity, which measures the extent of agreement among multiple items measuring a particular concept and the most commonly used measure of convergence validity is the Average Variance Extracted (AVE), with a minimum threshold of 0.5. In view of the foregoing, the results of indicator, internal consistency reliability and convergent validity were as depicted in Table 1.

Table 1: Indicator Loadings, Composite Reliability, and AVE of Latent Constructs

Latent construct	Items	Item Loading	Composite Reliability	AVE
MSMEs Performance	MP1	0.785	0.852	0.537
	MP3	0.794		
	MP4	0.760		
	MP6	0.650		
	MP7	0.662		
Insurgency	INS1	0.848	0.933	0.777
	INS2	0.898		
	INS4	0.879		
	INS5	0.899		
Porous Border	PRB1	0.822	0.916	0.685
	PRB2	0.822		
	PRB3	0.836		
	PRB4	0.786		
	PRB5	0.871		

Source: Researcher's compilation with PLS-SEM 4.0

The indicator reliability of all the usable items in this study ranges from 0.650(for MP6) to 0.899 (for INS5), which are all within the threshold opined by Hair et al. (2016). Furthermore, for the composite reliability of all the latent constructs as displayed in Table 1 were 0.852, 0.933 and 0.916 for MSMEs performance, insurgency and porous border respectively which all exceeded 0.6 thereby confirming composite reliability. Furthermore, the average variance extracted values of this study were 0.537, 0.777 and 0.685 for MSMEs performance, insurgency and porous border respectively. As such, the values were above the minimum threshold of 0.50, indicating that the constructs had strong convergence validity.

Discriminant Validity

Discriminant validity is the extent to which a particular latent construct differentiates itself from other constructs and it is computed to ensure that the scale used to measure a different construct is certainly measuring a distinct one (Saderst et al., 2021). Therefore, using Fornell-

Larcker criterion, the discriminant validity of the variables was established through a comparison of the square roots of AVEs and the inter construct correlations between constructs. The outcome demonstrates that the measurement model of this study has achieved good discriminant validity.

Table 2: *Discriminant Validity*

	INS	MP	PRB
INS	**0.881**		
MP	-0.538	**0.733**	
PRB	0.049	-0.394	**0.828**

Source: researcher's compilation in PLS-SEM 4.0

Table 2 depicts the values of discriminant validity of the study. Based on that, the first value of insurgency square root extracted variance is 0.881, which is greater than all the values of the shared variance between the construct and all other variables of the study with MSMEs performance and porous border having with -0.538 and 0.049 respectively. For MSMEs performance, the AVE root of 0.733 is greater than -0.538 and -0.394 on its relationship with insurgency and porous border respectively. Lastly, the discriminant value for porous border is 0.821 is higher than 0.024 and -0.360 for ethno-religious conflict and MSMEs performance respectively.

Model Fit Evaluation

Following the evaluation of measurement model and structural model, it is necessary to assess the overall model fit by using appropriate criteria. Furthermore, PLS-SEM 4.0 was used in this study to conduct the model fitness using confirmatory factor analysis and goodness of fit with SRMR value, chi-square statistics (X^2) among indices. Indication of the goodness of fit model was computed. The model of a study is considered fitted if the SRMR value is above 0.05 (Sarstedt et al., 2021). Consequently, the SRMR value of this study is 0.077, which is above the threshold of 0.05. Hence, the model of the relationship between insecurity and MSMEs performance is considered fitted and ready for the analysis. The SRMR value, chi-square and other relevant indices were presented in Table 4.6 as follows:

Table 3: *Model Fit Estimation*

	Saturated model	Estimated model
SRMR	0.061	0.061
d_ULS	0.390	0.390
d_G	0.133	0.133
Chi-square	158.306	158.306
NFI	0.891	0.891

Source: PLS-SEM 4.0 output

PLS-SEM Results of the Significance of Path Coefficients

The significance and relevance of PLS-SEM structural model were evaluated based on the t-statistics and p-values obtained using 5,000 bootstrapped samples in Smart PLS-4.

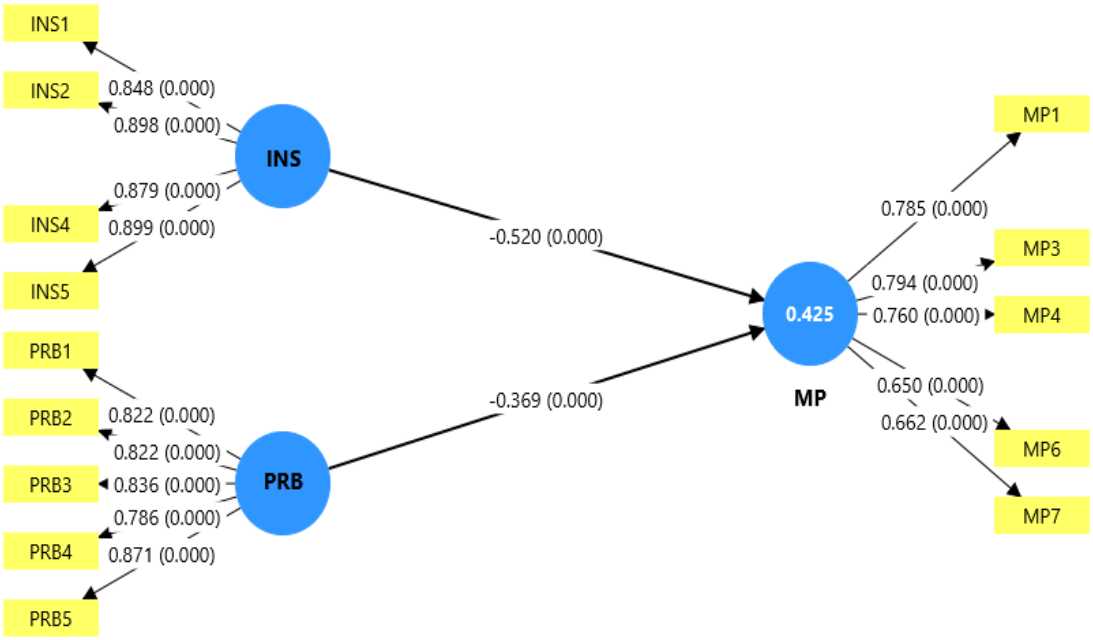


Figure 1: PLS-SEM 4 output

The Figure 1 depicted above revealed that insurgency and porous border have significant negative effect on MSMEs performance. Furthermore, the structural analysis based on PLS-SEM revealed that the model has a coefficient of determination (R-square) value of 0.425. This implies that, only 42.5% of the SMEs performance in the study area was explained by insurgency and porous border. Meanwhile, the remaining 57.5% is explained by other variables not covered by this study. Accordingly, Cohen (1998) categorized R-square into 0.19, 0.33 and 0.67 criteria to be considered as weak, medium, and substantial values respectively. In view of that, the model of this study is considered as medium by having 42.5% variation.

Table 4: *Structural Estimates*

Hypotheses	Relationship	B	T statistics	P values	Decision
H1	**INS -> MP**	-0.520	11.710	0.000	Accepted
H2	**PRB-> MP**	-0.369	7.505	0.000	Accepted

Note: Significant at the $p < 0.05$ level.

Discussion of Findings and Hypotheses Testing

This section presents the result discussion which outlines the implication of the findings and its justification with previous studies. The first assessment was on the impact of insurgency

on MSMEs performance in Adamawa north. The result evident from PLS-SEM analysis revealed that there was a significant negative relationship between insurgency and MSMEs performance based on the coefficient and p-value of 0.520 and 0.000 respectively. This implies that increase in the level of insurgency will lead to decrease in MSMEs performance in the study area and vice versa. Therefore null hypothesis is rejected and the alternate hypothesis is accepted. In view of that, this finding corroborates with Ekoja et al. (2022), which investigate the impact of Kaduna state insurgencies on SMEs entrepreneurial ventures in the state. The study found that insecurity insurgencies in Kaduna state significantly deterred the enterprises' performance, which implies negative relationship similar to the outcome of this study. In agreement, this result corroborates with Similarly, Asogwa et al. (2022) which assess how security threats affect the long-term viability of SMEs in Nigeria and found that SMEs in Nigeria are significantly and negatively impacted by security concerns. Also, Kadir et al. (2022) examines the implications of growing insurgencies in Sokoto state as it affects the operation and survival of SMEs in Birni Local government area found that incessant attacks by Bandits and Boko haram has impacted negatively on the smooth operations of SMEs. These among other studies provide a ground for justifying the result obtained in this study.

Secondly, this study tests the effect of porous border on MSMEs performance in Adamawa state. The result of PLS-SEM showed that, there is significant negative relationship between porous border and MSMEs performance evident from the coefficient and p-value of -0.520 and 0.000 respectively. This implies that increase in border porosity will lead to decrease in the performance of MSMEs in Adamawa state and vice versa. Therefore the alternate hypothesis is accepted and the null hypothesis is rejected. Accordingly, this result is justified by the finding of Oladapo et al. (2021) which investigate the influence of porous border on Nigerian economic activities and securities. The study concludes that border porosity in Nigeria has detrimental effect on the economic activities including SMEs businesses. The result also aligns with Abdullahi and Gawi (2021) which looked at the northeastern border of Nigeria with Cameroon to see how border porosity affected Nigeria's national security. The study's findings showed that border porosity caused food shortages in the northeast, which in turn crippled businesses and put individuals in significant trouble as they fought for food. Because it shows how border porosity hinders commercial activity in the state that borders Cameroon.

Conclusions

Based on the forgoing analysis and result this study concludes that the insurgent situation in northern Adamawa state is causing economic hardship for the local populace, which reduces their purchasing power and ultimately declines the consumer demand of MSMEs' goods and services in the region, especially those in retail, services and consumer goods sector. Also, the fear of un-peaceful environment in the region shrink the market as people flee the conflict zone, which reduces the customer base for MSMEs leading to significant drop in sales and revenue. Moreover, it is concluded that MSMEs are more vulnerable to insurgency in

Adamawa state than any other type of businesses as they typically have fewer resources and are less resilience than larger companies. Thus, the insurgent situation have severely disrupt economic activities of the enterprises by forcing the closure of business activities due to security threats, destruction of infrastructure or lack of market access.

Furthermore, the border porosity in Adamawa north senatorial zone facilitate easier cross border trade, allowing the MSMEs to expand the competitiveness in the market because the neighboring cross-border communities without facing significant regulatory barriers, which expand their market based leading to lower profit margin and revenue growth. Nonetheless, the MSMEs benefit from the porosity by accessing lower cost raw materials or products from neighboring countries due to ease of cross-border trade, which makes the MSMEs in the region more competitive in pricing their products and services that potentially increase their market share and customer loyalty. As such, MSMEs in northern Adamawa state often take advantage of supply chains flexibility across borders based on price quality and availability, which lead to better cost management and higher operational efficiency.

Recommendations

In view of the conclusions presented in this study, the following recommendations were made as follows:

i. This study recommends MSMEs in northern Adamawa state to develop and implement safety protocols for employees including evacuation plans, secure communication systems and regular safety drills, which are paramount during emergency.
ii. Also, the enterprises should create and regularly update contingency plans that outline steps that to take in case of conflict. This includes strategies for protecting assets, relocating operations and maintaining critical business functions.
iii. Government on the other hand should support the MSMEs that need to relocate to other parts of the state due to intense insurgent situation in some other parts. This includes financial aids for setting up in new location, access to new markets or temporary business premises. This is crucial considering that these businesses may likely flee from the unsecured environment, which may affect the overall economic growth of the state.
iv. Moreover, this study recommends MSMEs to comply with all relevant regulations and trade agreements governing cross-border trades applicable in Nigeria. This includes complying with import and export regulation and local business laws applicable in neighboring countries.
v. There is further need for government to improve border infrastructure and security by upgrading the transportation means and inspection facilities to improve cross-border trade and security. This is considered paramount because despite the benefit of border porosity to businesses in the region, enhancing border security will prevent illegal

activities such as smuggling and trafficking while ensuring that legitimate trade is not unduly disrupted.

REFERENCES

Abbas, S. M. S. & Mohammed, S. (2016). Effect of insurgency on operations of small and medium business enterprises: a study on impact assessment in Nigeria. *Indian Journal of Applied Research, 6*(9), 487-490.

Abdullahi, A. & Gawi, Y. A. (2021). The effects of border porosity on Nigeria‘s national security: A study of Nigeria's northeastern border to Cameroon. *International Journal of Research and Innovation in Social Science, 5*(5), 442-450.

Abdullahi, M. (2023). We’ll get more sophisticated gadgets’-Fintiri vows to address insecurity in Adamawa. https://www.thecable.ng/well-get-more-sophisticated-gadgets-fintiri-vows-to-address-insecurity-in-adamawa/amp

Abiodun, T. F. (2021). Untold impacts of Nigeria’s land borders closure policy on border communities, economy, and security in West African sub-region. *International Journal of Research in Education and Sustainable Development, 1*(1), 10-21. Doi: 10.46654/IJRESD

Adegorila, A. E. & Adolphus, A. J. (2021). Impact of insecurity on small and medium scale enterprises (SMEs) in Nigeria. *Proceedings of 3rd Annual National Conference, @Federal University Lafia, Nasarawa State.* 306-317.

Adewusi O. A. and Jibril K. (2022). Impact of Boko-haram insurgency on agriculture in Adamawa state, *International Journal of Education and Social Science Research,* 5(5), 209-223.

Ahmed, M. I. (2022). Insecurity; Adamawa governor signs third executive order to tackle crimes. https://www.premiumtimesng.com/regional/ssouth-east/523796-insecurity-adamawa-governor-signs-third-executive-order-to-tackle-crimes.html?tztc=1

Asogwa, O. S., Onyekwelu, N. P. & Azubike, N. U. (2022). Effects of security challenges on business sustainability of SMEs in Nigeria (2008-2020). *International Journal of Business And Management Research, 3*(2), 1-18.

Ekoja, G. O., Tamunomoni, A. C. B., Okafor, C. A. & Ekpebenyo, W. (2022). Entrepreneurial ventures and insecurity in Nigeria: a case of selected enterprises in Kaduna state, Nigeria. *Nigerian Journal of Management Sciences, 23*(2), 162-171.

Eroukhmanoff, C. (2018). Securitization theory. E-International Relations Publishing.

Faluyi, O. T., Akinola, A. O. & Khan, S. (2019). The Nigerian state and boko haram terrorism: reflecting on the performance of public institutions. *UBUNTU*: *Journal of Conflict and Social Transformation, 8*(1), 29-49.

Fornell, C. G., & Larcker, D. F. (1981). Evaluating structural equation models with un-observable variables and measurement error. *Journal of Marketing Research,* 18(1), 39-50.

Hair, J. F., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2016). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial Management & Data Systems*, 117(3), 442–458.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning,* 46(1-2), 1–12.

Ibrahim, S. S., Ambore, B. F., Hassan, M. K., & Gambo, H. (2023). An assessment of business environments and their effects on small and medium enterprises in Kaduna state-Nigeria. *Journal of Global Economics and Business*, *4*(13), 195-225.

Inuwa, F. U. & Muhammad, B. M. (2019). Impact of insurgency on the growth of small business in Maiduguri, Borno state, Nigeria. *Dutse Journal of Economics And Development Studies, 7(1). 95-102.*

Kadir, M., Abdullahi, M. J., Kadiri, H., Akanmode, K., Agunniyi, D. & Salaudeen, S. P. (2022). Implications of growing insecurity on the survival and growth of SMEs in Sabo Birni Sokoto State Nigeria. *Ede Journal of Business, 9*(1), 113-118.

Kalu, O. O. & Onuoha, C. B. (2023). Political instability and organizational competitiveness sustainability in Nigeria. *Nigerian Academy of Management Journal, 15*(3), 129-138.

Mboto, H. W., Abong, H. O. & Akoi, I. O. (2021). Insecurity and entrepreneurship in Nigeria - the South East experience. *International Journal of Research in Arts and Social Sciences, 14*(1), 128-139.

Nwagbala, S. C., Ifureze, P. C., Okafor, I. P. (2022). Insecurity in Nigeria and business sustainability in selected hotels in Awka. *International Journal of Trend in Scientific Research and Development, 6*(3), 1571-1580.

Ogunmuyiwa, M. S. (2022). Analyzing the influence of business environment on performance of ICT firms in Nigeria. *Acta Universitatis Danubius, 18*(2), 77-87.

Okunade, S. K. & Oni, E. O. (2021). Nigeria and the Challenge of Managing Border Porosity. *Journal of Black Culture and International Understanding, 6*(7), 75-93.

Oladapo, S. O., Aledeji, D. T. & Ayeni, A. O. (2021). The porous border on Nigeria economics and security implications. *Randwick International of Social Sciences (RISS) Journal, 2*(3), Page: 335-340. DOI: https://doi.org/10.47175/rissj.v2i3.276

Onuoha, A. C., Anele, N. I. & Okwara, A. C. O. (2022). Prevalence of insecurity and survival of entrepreneurial business in imo state, Nigeria. *International Journal of Advancement In Education, Management, Science And Technology 4*(2), 31-41.

Onyeizugbe, C. U., Orogbu, O. L. & Ewans, C. (2018). Security challenge and performance of SMEs in Nigeria (2008-2017). *Proceedings of the 12th Annual National Conference of the Academy of Management Nigeria,* 109-119.

Oriazowanla, A. O. & Erah, D. O. (2019). Effect of insecurity on micro, small and medium enterprises (MSMEs) development in Benin-City, Edo State. *International journal of Business Management, 4*(3): 75-86.

Sarstedt, M., Ringle, C. M., & Hair, J. F. (2021). Partial Least Squares Structural Equation Modeling. *Tourism and Hospitality Research*, 12(1), 1-47. DOI: 10.1007/978-3-319-05542-8_15-2

Tahir, F. A. & Inuwa, F. U. (2019). Empirical investigation of the factors affecting micro, small and medium scale enterprises performance in Borno State, Nigeria. *International Business Research, 12*(4), 30-39.

Yahaya, J. U. & Zango, A. M. (2016). The security and economic implication of porous borders in northern Nigeria. *International Journal of Humanities & Social Science, 11*(6), 168-189.

Yahaya, Y., Dutse, U. A. & Bello, S. (2021). The impact of government policies on the growth and development of SMEs enterprises in Bauchi State Nigeria. *Socio-Economic Challenges, 5*(2), 111-119.