COVID-19 AND INSECURITY: A MODERATING EFFECT OF GROWTH OF MICRO ENTERPRISES IN SOUTH EAST OF NIGERIA

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Abstract

The study examines the relationship between COVID-19 and insecurity as a moderating effect of growth of Micro enterprises in South East of Nigeria. As the methodology, close ended questionnaire was administered to the respondents who were the owners of micro enterprises in South East of Nigeria. The variables used were number of infections, number of tests carry out, number of reported cases and number of deaths which were used as measures of COVID-19 and insecurity were measured with bombing, suicide bomb attacks, sporadic shooting of unarmed and innocent citizens, burning of police stations, churches, kidnapping of school girls and women, while growth were measured using expansion, survival, number of employees, and capital employed. The population of the study is the entire Micro enterprises in South East of Nigeria and the sample size of 389 was derived using Taro Yamane formula. The variables were tested for reliability and result showed that all the variables were reliable. The study used Partial Least Square Structural Equation Model (PLS-SEM) to test the hypotheses and to determine if there is an effect of independent variables on dependent variable. As a result it is found that COVID-19 is significant in enhancing insecurity among Micro enterprises in South East of Nigeria while insecurity is insignificant in achieving growth of Micro enterprises in South East of Nigeria. Therefore, Government of Nigeria should re-emphasis on insecurity and COVID-19 and provide adequate solution or ways of minimizing these problems to grow the Micro enterprises in South East of Nigeria.

Keywords: COVID-19, Insecurity and Growth, Micro Enterprises

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1. Introduction

It is stated that COVID-19 has reduced sales growth and decreased employment opportunities, as well as lowering the rate of customers' ownership of a particular product in the market (Dane, Akyuz & Opusunju, 2021). It is from the recent report that small businesses in Nigeria need survival strategies in terms of growth during the period of COVID-19 and insecurity (Dane, Akyuz & Opusunju, 2021). From the same perspective, Opusunju, Akyzu and Inim (2020) noted that Coronavirus brought about challenges such as an increase in the infected persons as well as increase in death making countries to lockdown economic activities such as import, export and local business transactions within their borders.

In recent times, Nigeria has been facing several security challenges. These include rise in armed robbery, kidnapping, insurgency, ethnic conflicts, and recently, activities of the Boko Haram sect. Hundreds of Nigerians and some foreigners’ resident in the country have been killed as a result of one violent crime or the other, while property worth millions of naira has also been lost to insecurity in the country. Fundamentally, no one and place is considered totally safe within the country (Ejo-Orusa, 2020).

Also, over years Nigerian government have initiated policies and programmes to minimize insecurity situation in Nigeria such bombing, suicide bomb attacks, sporadic shooting of unarmed and innocent citizens, burning of police stations, churches, kidnapping of school girls and women. The government of Nigeria also initiated policies recently to minimize the COVID-19 spread that may resulted to high infections, highest number of tests carry out, number of reported cases and increase number of deaths. These issues (COVID-19 and insecurity) which government of Nigeria have brought solution which implies micro enterprises is growing in the Nigeria. Yet the resulted effect is that micro enterprises in Nigeria especially South East of Nigeria is not growing (Opusunju & Murat, 2020).

The objective of this study is to examine the moderating effect of growth between COVID-19 and insecurity among micro enterprises in South East of Nigeria. The specific objectives are to: determine the effect of COVID-19 on insecurity among micro enterprises in South East of Nigeria, determine the effect of growth on insecurity among enterprises micro in South East of Nigeria while examine the effect of growth as a moderating role between COVID-19 and insecurity among micro enterprises in South East of Nigeria.
From the empirical studies, none of the studies reviewed used insecurity and growth of the micro enterprises in South East of Nigeria. Also, none of the studies used moderating effect to analysis the variables.

The scope of this study is restricted to the moderating effect of growth between COVID-19 and insecurity among micro enterprises in South East of Nigeria. The study measured COVID-19 with number of infections, number of tests carry out, number of reported cases and number of deaths and insecurity with bombing, suicide bomb attacks, sporadic shooting of unarmed and innocent citizens, burning of police stations, churches, kidnapping of school girls and women while growth is measure with expansion, survival, number of employees, and capital employed

The following null hypotheses are formulated

$H_{01}$: COVID-19 does not significantly affect insecurity among micro enterprises in South East of Nigeria

$H_{02}$: Growth does not significantly affect insecurity among micro enterprises in South East of Nigeria

$H_{03}$: Growth does not significantly moderate the relationship between COVID-19 and insecurity among SMES in South East of Nigeria

Concept of Insecurity

Hasan (2005), defines insecurity as a fact of life for the poor urban citizens of many countries. According to him, it may arise from the lack of secure housing tenure, which means living with the constant fear of eviction or it may reflect high levels of personal insecurity stemming from police harassment, abuse in the hands of bureaucracies or the breakdown of public safety in the neighborhood. Insecurity therefore, implies the absence of security. It is the direct opposite of security. It is the absence of safety of individuals, state or organization against criminal activities (Jacob et al, 2019).

Different scholars view insecurity as lack of safety or the existence of danger; hazard; uncertainty; lack of trust; doubtful; inadequately guarded or protected; lack of stability; disturbed; lack of protection and unsafe (Achumba et al, 2013) while Adebanjoko & Ugwuoke (2014) opine that insecurity is the State of being subject in every respect to terror, threat, risk,
molestation, bullying, harassment, etc. Insecurity, for example, can be conceived as a threat to the state that often accounted for the arms and nuclear weapons race to protect the state.

However, this study conceptualized insecurity that activities that resulted to bombing, suicide bomb attacks, sporadic shooting of unarmed and innocent citizens, burning of police stations, churches, kidnapping of school girls and women and these activities are carry out by human.

**Concept of COVID-19**

The virus has been named “SARS-CoV-2” and the disease it causes has been named COVID-19 (Dane, Akyuz & Opusunju, 2021). The concept ‘Coronavirus’ is an infectious disease that is popularly referred to as COVID-19 (Moore, 2020; Ohia et al, 2020). Coronavirus is infectious disease that required sanitization, social distancing, movement restriction, ban on worship, testing suspects, isolation, quarantining, and business closures. According to Medscape (2019) is an illness caused by a novel coronavirus now called severe acute respiratory syndrome coronavirus 2(SARS-CoV-2; formerly called 2019-nCoV), which was first identified amid an outbreak of respiratory illness cases in Wuhan City, Hubei Province, China. This study conceptualized COVID-19 as the disease and virus that causes high rate of infections, increase in the number of tests, increase in the number of reported cases as well as high-rate deaths.

**Concept of Growth**

Growth is said to be a complex concept which is organic (expanding by increasing overall customer base, output per customer and new sales) and inorganic (expansion through mergers, acquisitions or takeovers (Akyuz, Zackariah & Opusunju, 2020) Growth is a positive increase in the size of a firm as evidenced in increase in sales or turnover, employees, quality of products and quality of customer relationship that may lead to increase in assets and profit of the firm (Onyenma, 2019). Growth is often measured in terms of turnover and profit, but can also occur in knowledge, in human experience, and in efficiency and quality (Antonites&Nonyana, 2012; Elumeh, Shobayo, &Akinleye, 2016). The choice of the method of growth depends on the type of business, resources available, time, money, and equity sweat the owner is ready to spend (Akyuz & Opusunju, 2020). This study conceptualize growth as increase or expansion of businesses, survival of businesses, increase in the number of employees, increase in the number of customers and capital employed. Also, growth is typically defined and measured using
absolute or relative changes in sales, assets, employment, productivity, profits and profit margins.

2. Empirical Studies

Ayobami et al (2021) examined COVID-19 pandemic and insecurity in Nigeria. Convenience accidental sampling was used to administer 1671 copies of a questionnaire on residents through an online/electronic survey. Data collected were analysed descriptively and inferentially. Findings revealed that the spike in crime during the COVID-19 lockdown period is relatively higher than usual with disruption of public peace, theft and rape accounting for the most prominent crime. Meanwhile, most respondents experienced crime incidence between 6 pm and 12 midnight. Ironically, idleness, poor spatial arrangement/planning, poor governance and poverty were the major catalysts for the crime spike during the lockdown, while fear-of-fear (phobophobia) and declined socio-economic capacity were predominant effects of crime experienced. The Fisher’s exact test results revealed a significant relationship between the surge in crime and COVID-19-restrictive measures. The study concludes that the insecurities during lockdown periods have caused both temporary and permanent physical and psychological havoc.

Noah et al (2021) examines the intersections between the pandemic and armed banditry in North western. It appears that armed bandits have intensified attacks on communities, against the background of government’s anti-COVID policy. Government has equally re-strategized in responding to the bandits’ attacks. The study gathered data from documented sources and media reports and were analyzed, using content analysis. The study observed that the armed bandits used the COVID 19 lock down policy to increase attacks on some communities, thereby providing a complex dimension to rural banditry in North western Nigeria.

Social-Ecological Theory

The Social-Ecological Theory (Bookchin, 1960) offers an understanding of behavioral reactions from a person, interpersonal, organizational, community, and public policy concerning the formation of behavior within the nearby social environment. The theory assists in the recognition of issues affecting behavior and also offers direction for developing successful programs through social environments. The social-ecological theory emphasizes the numerous levels of influence (such as individual, interpersonal, organizational, community, and public policy) and the idea that behavior is shaped and shaped by the social environment.
The philosophies of Social-ecological Theory are connected with Social Cognitive Theory perceptions which propose that providing an enabling environment that results in change is significant in making it easier to implement healthy behavior. With the emergence of COVID-19 which separates Nigeria from other countries of the world, serious attention should be given to shaping and adopting healthy behavior such as sanitization, social distancing, movement restriction, ban on worship, testing suspects, isolation, quarantining, and business closures. The relationship between the theory and this study is a detailed understanding of the reasons why people behave the way they behave. Therefore, Micro enterprises that can alter the way they do things during and after COVID-19 will survive and prosper.

3. Methodology

The study used survey research design by employing the use of questionnaire. The population of this study is registered Micro enterprises in South East of Nigeria. According to Business Directory (KSBD) report in 2019, there are 6997 Micro enterprises in South East. However, the population of this study is the 6997 Micro enterprises in South East of Nigeria. The sample size of the study was computed using Taro Yamane's formula (1967). The formula is:

\[ n = \frac{N}{1 + N(e)^2} \]

In eq. 1, \( n \) = sample size, \( N \) = number of items in the universe (population), and \( e^2 \) = the square of maximum allowance for sampling error. It is the level of significance.

Accordingly, the sample size of the study was calculated thus:

\[ n_1 = \frac{6997}{1 + 6997} \]

\[ n_1 = \frac{6997}{1 + 6997(0.0025)} \]

\[ n_1 = \frac{6997}{1 + 17.4925} \]

\[ n_1 = \frac{6997}{18.4925} \]

\[ n_1 = 378 \]
The sample size is 378. However, a pro-rata based on used in administering questionnaire to 5 states in the South East of Nigeria which implies that each state was given 75 copies of questionnaire except the Abia State which received additional 3 copies. The reason is that most of the Micro enterprises are much in Abia state because of Aba central market. The study used random sampling method to ensure all the respondents were treated equally in the administration of the questionnaire. The data is collected using a structured questionnaire and the questionnaire was close-ended designed with measurement scale via-a-via the 5-point Likert scale ranging from 1(strongly disagree) to 5(strongly agree). The researcher engaged the services of research assistant who assisted in the administration of the questions to owners of Micro enterprises. The research assistants returned the copies of questionnaire after one week. The internal consistency or reliability of the instrument for this research is determined by means of Cronbach’s Alpha, using the Partial Least Square Structural Equation Model (PLS-SEM) which implies that any instrument with a coefficient of 0.70 and above is seen as valid and reliable. The study adopted Partial Least Square Structural Equation Model (PLS-SEM) as regression method. The weight vectors that will be obtained at convergence satisfy fixed point equations. The Structural Equation Model that is adopted for this study is as follows:

![Proposed Model](image-url)

**Figure 1: Proposed Model**
Covid-19 and insecurity: a moderating effect of growth of micro enterprises in south east of Nigeria

The model depicts the moderating effect of growth of SMEs between COVID-19 and insecurity.

4. Data Analysis

The study tested for the reliability and validity of constructs to ensure the outer (measurement) model is robust (Fornell & Larcker, 1981; Hair et al, 2010).

1. Construct and Indicator Reliability

The factor loading, internal consistency and average variance extracted (AVA) are The indicator’s reliability which is evaluated. It is believed that factor loading should be higher than 0.70 (Hair et al., 2016) and internal reliability and composite reliability should be higher than 0.70 (Fornell & Larcker, 1981). The result (table 1) indicated that all the items loadings are higher than the recommended value which suggested that there is an acceptable indicator’s reliability. Also, the composite reliability which is represented as CR varies between 0.994 and 0.981 showing that the constructs used have acceptable levels of internal consistency reliability.

Table 1: Factor Loading

<table>
<thead>
<tr>
<th>Latent Variable</th>
<th>Indicators</th>
<th>Factor loading</th>
<th>AVE</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19</td>
<td>COV1(rate of infection)</td>
<td>0.983</td>
<td>0.928</td>
<td>0.981</td>
</tr>
<tr>
<td></td>
<td>COV2(increase in the number of death)</td>
<td>0.962</td>
<td>0.935</td>
<td>0.972</td>
</tr>
<tr>
<td></td>
<td>COV3(increase in the number of tests)</td>
<td>0.935</td>
<td>0.928</td>
<td>0.981</td>
</tr>
<tr>
<td></td>
<td>COV4(high rate of reported cases)</td>
<td>0.972</td>
<td>0.935</td>
<td>0.972</td>
</tr>
<tr>
<td>Insecurity</td>
<td>INS1(bombing)</td>
<td>0.936</td>
<td>0.990</td>
<td>0.954</td>
</tr>
<tr>
<td></td>
<td>INS2(kidnapping)</td>
<td>0.979</td>
<td>0.982</td>
<td>0.990</td>
</tr>
<tr>
<td></td>
<td>INS3(burning of police stations)</td>
<td>0.979</td>
<td>0.982</td>
<td>0.990</td>
</tr>
<tr>
<td></td>
<td>INS4(Burning of churches)</td>
<td>0.984</td>
<td>0.982</td>
<td>0.990</td>
</tr>
<tr>
<td>Growth</td>
<td>G(Sales)</td>
<td>0.936</td>
<td>0.988</td>
<td>0.954</td>
</tr>
<tr>
<td></td>
<td>G2 (increase in employees)</td>
<td>0.974</td>
<td>0.974</td>
<td>0.988</td>
</tr>
<tr>
<td></td>
<td>G3 (increase in customers)</td>
<td>0.841</td>
<td>0.974</td>
<td>0.954</td>
</tr>
<tr>
<td></td>
<td>G4 (increase in assets)</td>
<td>0.948</td>
<td>0.988</td>
<td>0.954</td>
</tr>
</tbody>
</table>

Notes: Factor weighting scheme; mean 0, var.1, max. iterations = 300
Also, the convergent validity is evaluated by average variance extracted (AVE) and it should be higher than 0.50 as this indicates that on average, the construct explained over 50 percent of the variance of its items (Sarstedt et al. 2014). Composite reliabilities for three reflectively measured constructs ranged from 0.990 to 0.981, exceeding the minimum requirement of 0.70.

2. Discriminant Validity

Discriminant validity demonstrates the extent to which a construct is categorized from other constructs because of either similarity or difference values (Sarstedt et al. 2014). Fornell and Larcker (1981) and Hair et al. (2010) suggest that the square root of AVE should be higher than the inter-construct correlations and maximum shared variance (MSV) should be lower than AVE. Table 2 indicate the Fornell and Larcker test of discriminant validity. This is correspondingly confirmed by cross loadings which are less than all indicator loadings.

Table 2: Fornell-Larcker Test of Discriminant Validity

<table>
<thead>
<tr>
<th></th>
<th>COVID-19</th>
<th>Growth</th>
<th>Insecurity</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19</td>
<td>0.963</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth</td>
<td>0.955</td>
<td>0.977</td>
<td></td>
</tr>
<tr>
<td>Insecurity</td>
<td>0.962</td>
<td>0.995</td>
<td>0.981</td>
</tr>
</tbody>
</table>

3. Structural Model and Hypotheses Testing

The formulated hypotheses had been tested using 3000 bootstrapping which were considered in test using both the direct and indirect(moderated) relationship. The effect size and blindfolding were also assessed to determine the predictive relevance.

Table 3: Test of Hypotheses

<table>
<thead>
<tr>
<th>hypothesis</th>
<th>Relationship</th>
<th>Beta</th>
<th>Standard error</th>
<th>T-Value</th>
<th>P-Value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H01</td>
<td>COVID-19-&gt;Insecurity</td>
<td>0.185</td>
<td>0.187</td>
<td>5.575</td>
<td>0.000</td>
<td>Not supported</td>
</tr>
<tr>
<td>H02</td>
<td>Growth-&gt;insecurity</td>
<td>0.826</td>
<td>0.823</td>
<td>29.869</td>
<td>0.000</td>
<td>Not supported</td>
</tr>
<tr>
<td>H03</td>
<td>COVID-19*Insecurity -&gt; growth</td>
<td>0.018</td>
<td>0.018</td>
<td>1.556</td>
<td>0.121</td>
<td>Supported</td>
</tr>
</tbody>
</table>
The first hypothesis (H01) which states COVID-19 has no significant effect on insecurity among Micro enterprises in South East of Nigeria is not supported because the T-value is greater than 1.96 threshold and P-value significant at 5%. Second hypothesis (H02) which states growth has no significant effect on insecurity among Micro enterprises in South East of Nigeria is not supported because the T-value is greater than 1.96 threshold and P-value significant at 5%. The third hypothesis (H03) which states Growth does not significantly moderate the relationship between COVID-19 and insecurity among Micro enterprises in South East of Nigeria is supported because the T-value is less than 1.96 threshold and P-value insignificant at 5%. The R-squared stood at 0.99 which inferred that 99% variations in the dependent variable is jointly explained by the independent variables while the remaining 1% is explained by variables not included in the study. The R squared is acceptable as it is above the recommended 10% by Falk and Miller (1995).

**Figure 1: Output of SEM**
Effect size and predictive Relevance

The study assessed the effect size of the exogenous variable on endogenous variable using the F. Cohen (1988) recommended that f values of 0.02, 0.15, and 0.35, to represents small, medium, and large effects respectively. Q was used to determine the predictive relevance of the exogenous variable. According to Garson (2016), Q value of 0 or negative showed that the model is irrelevant in predictive0 the endogenous variable the results are presented in Table 4 below:

<table>
<thead>
<tr>
<th>Constructs</th>
<th>R² included</th>
<th>R2 excluded</th>
<th>F₂</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19- &gt;Insecurity</td>
<td>0.991</td>
<td>0.845</td>
<td>0.044</td>
<td>Small</td>
</tr>
<tr>
<td>Growth of SMEs- &gt;insecurity</td>
<td>0.991</td>
<td>0.839</td>
<td>3.056</td>
<td>Large</td>
</tr>
<tr>
<td>COVID-19*Inscurity - &gt; growth of Micro enterprises</td>
<td>0.991</td>
<td>0.840</td>
<td>0.003</td>
<td>Small</td>
</tr>
</tbody>
</table>

Q² = 0.371

Figure 2: Graph of Interaction Effect
The above graph shows that growth does not significantly moderate the relationship between COVID-19 and insecurity among micro enterprises in South East of Nigeria. Also, there is small effect of growth of Micro enterprises that moderate the relationship between COVID-19 and insecurity.

**Discussion of Findings**

This study demonstrated the growth does not significantly moderate the relationship between COVID-19 and insecurity among Micro enterprises in South East of Nigeria. However, this implies that the activities of Micro enterprises that lead to growth is impossible due to COVID-19 and insecurity situation in Kaduna State of Nigeria. The finding of this study is in consistent with the findings of Ayobami et al (2021) who indicate that there is a strong, positive and significant effect of the variables. Also, there was no findings in the empirical studies that agree with the findings of this study. The study also in line with Social-Ecological Theory.

**5. Conclusion and Recommendation**

The study concluded that growth does not significantly moderate the relationship between COVID-19 and insecurity among Micro enterprises in South East of Nigeria. Also, COVID_19 has a significant effect on insecurity among Micro enterprises in South East of Nigeria. It is also noted that growth has a significant effect on insecurity among Micro enterprises in South East of Nigeria.

**The study recommended that**

Government of Nigeria should re-emphasis on insecurity and COVID-19 and provide adequate solution or ways of minimizing these problems to grow the small and medium scale enterprises South East of Nigeria.
REFERENCES


