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COVID – 19 INDUCED FOOD SYSTEM VULNERABILITY, FOOD RIOT AND SOCIAL UNREST IN NIGERIA: THE CALABAR MEDIA HOUSE EXPERIENCE

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Abstract

This study contributes to the pre – COVID – 19, COVID – 19 and posts COVID – 19 public opinion formations in Nigeria, by examining the relationship between COVID – 19 induced food system vulnerability, food riot and social unrest in Nigeria. This research theoretically and empirically unpacked the level of food chaos in Nigeria. It was argued that COVID – 19 increased astronomically the food crisis experienced in Nigeria. The consequence of this quagmire is the change in the way the populace expressed their opinion on matters affecting them in Nigeria. This study performed the numerous tasks it was set to perform by: (1) Determining whether COVID – 19 non – pharmaceutical measures caused hunger crisis and revolutionary spirit amongst Nigerians; (2) Examining the change in the revolutionary reactions of Nigerians in the different periods under study. In order to actualize these objectives, a survey research design with a mixed method of data collection was adopted. The data so gathered in the process of the research was analyzed using repeated measure ANOVA. This statistical tool was used to check the variations in response to food emergency in the three periods under study. In addition, extensive media monitoring and goggle trend strategies were adopted for monitoring the effects of food insecurity and social unrest in Nigeria. For the qualitative aspect, 30 people were purposefully selected for interview while 200 respondents out of the estimated population of 400 were randomly sampled (simple random sampling) in Calabar Media House Bishop Moinagh Street Calabar. The explanation of the interaction between the independent and dependent variables was made using game theory. Based on the explanations of this theory, this study makes the following summations: (1) COVID – 19 non – pharmaceutical measures caused an increment in the level of food crisis and revolutionary spirit amongst Nigerians; (2) There was a complete change in the public opinion strategies of Nigerians in the three different time periods under study.

Keywords: COVID – 19, food system vulnerability, revolution, Nigeria, food security.
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Introduction

The COVID – 19 health emergency has stimulated multiple problems globally including Nigeria. The problems range from economic (Ozili, 2020), social (Odionye, Danjuma and Amaonyeze 2021), religious (Buonsenso, Sisti, Moscato and Malorni, 2020) and even nutritional (Global Alliance for Improved Nutrition, 2020). The nutritional crisis that is presently experienced in Nigeria could be a tip of the iceberg of the food emergency that is yet to be experienced in Nigeria if the government fails to arrest the situation effectively.

The COVID – 19 health emergency started in Nigeria around the first quarter of the year 2020. The NCDC in revealing the origin of this pandemic in Nigeria stated that, the first confirmed case of the pandemic corona virus disease 2019 in Nigeria was announced on 27th February, 2020, when an Italian citizen in Lagos tested positive for the virus. The human – to – human transmission of the virus became so pronounced that over 64000 cases of the virus with 1,100 deaths has been recorded as of 12th November 2020 (Odionye et al, 2021). However, before the number of victims escalated to the present figure, the government has already adopted measures for effective management of the pandemic, to effectively mitigate the spread of the virus in Nigeria.

The intervention measures of the government include, but not limited to the following – wearing of facemask, performing hand hygiene, ensuring respiratory etiquette (coughing into tissue, sleeve/bent elbow and discarding used tissue safely into a bin), and of course

maintenance of physical distancing, social distancing, quarantine of international travelers, instituting temporary restrictions on travel with dramatic reductions in the number of travelers, self isolation etc. (WHO, 2020; Presidential Task Force on COVID – 19, 2020; Oleribe, Ezechi, Osita – Oleribe, Olawepo, Musa, Omoluabi, Fertleman, Salako and Taylor - Robinson, 2020). Remarkably, the woes of Nigerian economy started with the application of the different phases of these policies. Indeed, it can be observed that the serious application of these policies, determined the level of their impacts on the society. In the views of Oleribe, et al (2020), Nigeria did not appraise the effectiveness and implications of these measures to the nation before adopting and implementing them. Thus, the seriousness of these non – pharmaceutical interventions suggests an increment in the severity of economic, social, health and nutritional woes of the country.

Indeed, it can be observed that the food system vulnerability and susceptibility in Nigeria became advanced and more problematic following the COVID – 19 pandemic in Nigeria, thus leading to food-induced revolution during and after the COVID – 19 pandemic in Nigeria. This study therefore investigates the influence of COVID – 19 induced food vulnerability and food riot on social unrest in Nigeria, especially the Calabar Media house Cross River State.

Statement of the Problem

COVID – 19 pandemic is a global health challenge that has caused huge global anxiety and concern. Its emergence has led to social, economic, health and even interpersonal dislocation of people in a number of ways. Although Nelson (2020), Villa, Jaramilo, Maigori, Bandera, Gori and Ravigihone (2020) have expressed the level of human, nutritional and social dislocation in many parts of the world. In Nigeria, there have been lockdowns of markets and worship centre's, including COVID – 19 related protests, demonstrations and riots. Yet it remains empirically unclear the extent of social, nutritional and health hazards before, during and after the first wave of the pandemic among Nigerians.

The implication therefore is that comments and arguments on the effects of COVID – 19 pandemic on the social, food and other health – related matters remain substantially speculative. For example, some reports have it that prior to the COVID – 19 pandemic in Nigeria, there has been some notable conflict types – terrorism, bandits, violence, grievances hardship etc (Corps, 2021). These conflicts have also contributed to levels of food insecurity on one hand, and food insecurity has instigated and simulated these conflicts on the other hand. However, the COVID – 19 induced food insecurity has caused a trend of problems in the body polity of Nigeria. The non – pharmaceutical policies and measures have prepared the stage for the occurrence of some certain type of conflicts. The COVID – 19 response or intervention policies – lockdown, border closure, and the poor distribution of palliatives have aggravated multiple drivers of conflict and reinforced pre – existing patterns of violent behaviours by the government, armed groups and community leaders (Corps, 2021). Thus, these conditions led to new types of social unrest and food induced crisis by adopting strategies like armed robbery, kidnapping, warehouse breaking and looting, prison break, by End SARS protester, the Unknown gunmen, terrorist groups and individual criminals etc. Indeed, such deviant behaviours was recorded amongst those that live in Lagos when small criminal activities erupted in that place. These activities were because of hunger and lack of food (http://nairametrics.com/2020/04/13/groans-as-criminals-terrorise-neighbourhoods-during-covid-19-lockdown). Then the hoarding of palliatives in different warehouses scattered all over the state caused break of warehouses and looting activities. For example, Corps (2021) argues that the problem with Nigeria as far as this is concerned is traceable to the government insensitivity and the greed of politicians. Thus:

> The greed of government officials led to the hoarding of palliatives by which were distributed to every state by the federal government to reduce the sufferings of the masses during lockdown. However, the state government saw it as an opportunity to reserve food items to use during their political campaign and rallies and to sell part of it and distribute it only to their friends and families.

The End SARS protest of 2020 also was very intense as people especially youths started flouting the COVID – 19 pandemic measures; especially the social distancing measures, and started converging on their thousands to protest against police brutality. The End SARS protest was promoted by two key factors. The first was the online messaging that was shared using media handles while the other is hunger. Many people who joined the End SARS protest participated due to the attraction of food and drinks provided by the celebrities.

It is against this backdrop that, the need to carry out an investigation to ascertain the COVID – 19 induced food system vulnerability, food riot and social unrest in Nigeria, using a town as Carlabar as a focal point at least to establish an empirical base to some speculative reports on this matter. The questions that arise and which shall serve as the pivot around which this study shall evolve are:

(1.) To what extent has COVID – 19 non – pharmaceutical measures caused hunger crisis and revolutionary spirit in Nigeria?

(2.) Is there a change in the revolutionary reactions of Nigerians from pre COVID – 19 emergency interventions to COVID – 19 emergency interventions to post COVID – 19 emergency interventions?

Objectives of the Study

The study has both broad and specific objectives. The broad objectives is to examine the relationship between the COVID – 19 induced food system vulnerability, food riots and social unrest in COVID – 19 and Post COVID Nigeria.

The specific objectives of the study are to:

(1) Determine whether COVID – 19 non – pharmaceutical measures caused hunger crisis and revolutionary spirit in Njgeria;

(2) Examine the changes in revolutionary reactions of Nigerians from Time 1(pre - intervention), Time 2 (intervention) to Time 3 (post intervention)

Theoretical Framework

This study, the COVID – 19 induced food system vulnerability and food induced revolution in pre COVID – 19, COVID – 19, after the first phase of COVID – 19 Nigeria shall be explained using the game theory and Berks 1974 Threshold Riot Model. The game theory was propounded by John Von Neumann and Oscar Morgenstein as was popularized in their research of 1944 titled - "Game Theory and Economic Behaviours". The game theory is based on the following assumptions:

- Players are decision makers in the game, a player can be an individual, group, institution or population;
- Strategies are the course of action open to the players in a game;
- Payoffs are final returns to players, which are usually stated in terms that are objectively understood by each player in the game (Chang, Mahendra, Pattison and Prokopenko, 2020).

On the other hand, Berk (1974) as quoted by Challenger, Clegg, Robinson, and Leigh (2009) made the following assumptions when he used game theory to explain Mob actions or social unrest. The assumptions are as follows:

- Crowd members seek information;
- Behavioural options are listed;

- ❖ An order of preference for the probable outcomes of alternative options is established;
- ❖ A course of action is decided upon aimed at maximizing cost;
- ❖ The reward gotten by a major action is dependent on the support level.

Indeed, the game theory was used to explain the trajectories surrounding food system vulnerability and food induced revolution in COVID – 19 and Post COVID – 19 Nigeria. The assumptions behind government decision are to increase their pay – off as rational players because since the vaccine of the pandemic was late, it was believed that the transmission level of the virus could be reduced by maintaining social distancing amongst individuals (Reluga, 2010). These social distancing policies include self – isolation, quarantine, community lockdown, ban on social gathering, markets and churches, etc (Assessment Capabilities Project, 2020).

Remarkably, the game theory is relevant in the promotion of public health, but sometimes actions of individuals or groups affect the health of others. Thus, most times individual or group strategies do not promote the good of all but lead to inferior feelings (Malhotra, 2012). The strategies, which were adopted by the government during the COVID – 19, are likened to a non – competitive game. A non – competitive game is defined as " a game that exhibits a competitive situation where each player (i.e. individuals) need to make a choice independently of other individuals given the policies of the other individual and their impact on the other individual pay off or utilities" (Chang, et al, 2020).

In applying this statement to the game theory, it can be seen that citizens and government have independent decisions regarding this pandemic. Their decisions are prompted by the rational payoff they want to realize. In this case, the payoff is healthy society. The policy, however, will be successful if followed by effective planning and effective financial responsibility. The effective planning and financial responsibility of the government are meant to cover a period wherein the socio – economic conditions of the people shall be considered. But the citizens acceptability and cooperation with this policy is also dependent on their gains. Furthermore, the game theory is also explained using differential game model (a differentia game is a game where strategies have continuous time dependence at each time the player choose different action) (Pavel, 2012). Reluga (2010) is of the opinion that social distancing policies resulted to high cost on the citizens at different periods. The cost is borne to mitigate the risk of infection. In essence, the response of the people differs with time. The intensification of the government measures and the continuous hunger changed the attitude of the people towards the pandemic. One of such time and policy changes that changed the citizens reaction is the intensification of the lockdown policy; a policy that affected the food system vulnerability in Nigeria. This caused the people to seek more payoffs, especially the rational life over other things.

In using the threshold riot model in explaining the citizens food induced revolutions, it can be seen that the citizens are still rational individuals who strive for utility maximization. The threshold is based on persons who will serve as mentors and instigators. The instigators of the riot came in the form of celebrities and activists who rallied for support on twitter, instagram and facebook and within days were able to mobilize the youths in Lagos and Abuja (Umezuruike, 2020).

Interestingly, in this situation, the gain a person gets from participating in a particular riot will be dependent on the number involved (Granoveller, 1978) in this case the online activism has mobilized thousands/ even millions of Nigerians; who joined in looting warehouses where palliatives were stored. Hence, the increment in size of the protesters and rioters reduced the cost "since the probability of being apprehended is smaller when the number of those involved is bigger (Berk, 1974).

Hypotheses

Two hypotheses were stated to guide this study as follows:

1. H0: There is no influence of COVID – 19 non – pharmaceutical measures on hunger crisis in Nigeria.
   H1: COVID – 19 non – pharmaceutical measures significantly influenced hunger crisis in Nigeria.
2. H0: There is no change in the revolutionary reactions of Nigerians from pre – COVID – 19 emergency interventions to post-COVID – 19 interventions;
   H1: There is a significant change in the revolutionary reactions of Nigerians from pre-COVID – 19 emergency interventions to post-COVID – 19 interventions.

Methodology

This study is conducted using a survey research design. Survey research design is a procedure in quantitative research in which the researcher administers a survey sample to the population of the people to describe the attitude, opinions, behaviours or characteristics of the population. This method is therefore often the best – suited method for descriptive purpose (Babbie, 2013, Haralambos and Holborn, 2013).

This study is an investigation of COVID – 19 induced food system vulnerability, food riot and social unrest in Nigeria and draws its data from randomly selected population in Calabar Media House of Bishop Moinagh Street Calabar, Cross River State. The estimated population of the study is 400 while the sample size is 200 respondents. This figure was derived using the statistical formula for sample size of Taro Yamane (1969) at 0.05 square. The Taro Yamane formula is:

$n = \frac{N}{1+N\,(e)}2$

Where 'N' is the population and 'e' is the margin of error. Since the population is 400 and E is 0.05, the sample size is therefore about 200. Data was collected from the respondents using a semi – structured interviewer administered questionnaire divided into two sections. Section A the socio – demographic characteristics of the respondents while section B elicited data that bordered on key research questions that have been developed for the purpose of the study. Statistical Package for Social Sciences (SPSS 20.0) was employed to process the data. The data collected were analyzed using, frequency counts, mean and standard deviations of the data's. The hypotheses were tested using logistic regression and ANOVA respectively.

Results and Discussion

Out of the total of 200 copies of questionnaire distributed, only 150 (75%) were effectively completed, returned and valid while 50(25%) were either not adequately completed or not returned, and therefore invalid

Table 1. Socio – Demographic Representation

Characteristics	Variable	Frequency	Percentage
Gender	Male	66	44
	Female	84	56
Age	18-35	59	39.3
	36-50	25	16.7
	>50	66	44
Location	Urban	56	37.3
	Semi – urban	40	26.6
	Rural	54	36
Occupation	Civil Servant	22	14.7
	Students	63	42
	Traders	53	35.3
	Clergy	10	6.7
	Police	1	.7
	Artisan	1	.7

Field survey, 2021

Data in table 4.1 show the bio – data presentation of the respondents. According to the findings the highest proportion of the respondents 66 (40%) was between the ages of 50 years and above. The females were 84 (56%) as against male who were 66 (44%). Location of the respondents as shown on table 1 reveal that those who lived in the urban areas were 56 (37.3%), semi – urban recorded 40 (26.6%) while rural dwellers were 54 (36%). The respondents were found to engage in a variety of occupations. Student's constituted the highest with 63 (42.%) followed b traders 53 (35.3%); civil servants came third with 22 (14.7%) while the clergy and other occupations constituted less than 10%. The implication of this finding is that the research penetrated different strata's of the respondents and therefore could be used as justifiable basis for the analysis of the investigation.

Analysis of Research Questions

Research Question One

To what extent has COVID – 19 non – pharmaceutical measures caused hunger crisis and revolutionary spirit in Nigeria?

S/N	Variable questions, frequency and percentages						Total %
1	Did you improve the quality of your food during the pandemic	Yes 72 (48%)	No 74 (52%)				
2	During the pandemic was your family producing food and or raising livestock's	Yes 51(34%)	No 96 (64%)				
3	During the COVID -19 pandemic there was a time when your household could not access the local market or grocery	Yes 95 (63.5%)	No 52 (36.5 %)				
4	Markets were completely closed during the lockdown	SA 29 (19.3)	A 62(41.3)	UD 24 (16)	D 31 (20.7)	SD 4 (.9)	100%
5	The cost of food was higher during the COVID – 19 pandemic	SA 101 (67.3 %)	A 20 (14.3)	UD 1 (.7%)	D 21 (15%)	SD 4 (2,7)	100%
6	The shopping behaviour of people changed during the pandemic	SA 84 (56%)	A 11 (7.7%)	UD 8 (5.6%)	D 30 (21%)	SD 17 (11.9)	100%
7	Many businesses went bankrupt because of COVID – 19	SA 42 (29.4%)	A 30 (21%)	UD 20 (14)	D	SD 25 (17.5)	100%
8	Workers salaries were drastically cut during the COVID - 19 pandemic	SA 50 (35%)	A 25 (17.5%)	UD 14 (9.8)	D 38 (26.6%)	SD 23 (16.1%)	100%
9	The palliatives the government promised were not properly distributed	SA 117 (78%)	A 21 (14%)	UD 0 (0%)	D 7 (4.7%)	SD 5 (3.3%)	100%
10	The Nigerian populace experienced serious hunger because of the lack of food	SA 69 (48.3)	A 41 (28%)	UD 6 (4.2%)	D 25 (17.5%)	SD 9 (6.3%)	100%
11	T here was high level of deviant action during COVID – 19	SA 66 (44%)	A 40 (27%)	UD 6 (4%)	D 37 (24.3%)	SD 1 (.7)	100%

Table 2 The non pharmaceutical measures and hunger crisis.

Field survey, 2021

The result shown in table 2 indicates the extent the non – pharmaceutical measures has impacted on the level of hunger crisis and revolution. The field survey showed among other things that palliative accounted as the most evident indicator of revolutionary spirit. This was followed by enhanced cost of food during COVID – 19. The general influence that is drawn from this result is that non – pharmaceutical measures or strategy for controlling COVID – 19 pandemic as evident of the lockdown policies (market lockdown and movement restriction) are consistent with the problem addressed. The impact of hunger on revolutionary attitudes is also evident following the effect of the palliatives denial, especially in a radicalized state as Calabar.

Research question 2

Is there a change in the revolutionary reactions of Nigerians from pre – COVID – 19 emergency interventions to COVID – 19 emergency interventions to post COVID – 19 emergency interventions?

Table 3: The Time Phases of Food Induced Revolution in Nigeria

S/N	Variable questions, frequency and their percentages						Total %
	In your opinion is food induced protest and violence, more before, during or after the first phase of COVID – 19 pandemic	Before COVID 34 (22.8%)	During COVID 82 (55%)	After COVID 33(22.1%)			100%
	Many people were attracted to the protest because of the food provided by celebrities during the lockdown	SA 34 (2 2.7%)	A 45 (30%)	UD 51 (34%)	D 6 (4%)	SD 14 (9.3%)	100%
	The revolutions experienced presently are more food induced than not food induced	SA 45 (31.5%)	A 31 (21.7%)	UD 17 (11.9%)	D 32 (22.4%)	SD 25 (17.5%)	100%
	Many people on many occasions searched for EndSARS protest on google during the protest periods	SA 43 (28.7%)	A 23 (15.3%)	UD 32 (21.3%)	D 30 (20%)	SD 21 14%	100%
	The social media served as meeting and instigation forum for protesters	SA 77 (53.9%)	A 42 (29.4%)	UD 5 (3.5%)	D 20 (14%)	SD 6 (4.2%)	100%
	How many people in you know participated in the EndSARS protest	1-20 48 (32%)	21-30 33 (22%)	31-40 21 (14%)	41-50 44 (29.3%)	> 50 4 (3.7%)	100%

Table 3 shows the different time periods and the food induced revolutionary propensities. The three time periods tested are Pre – COVID, during COVID and after COVID. From the respondents, it can be seen that 82 or 55% of respondents indicated that food induced violence was more during COVID – 19; because of the high level of food insecurity. Thus in this situation, though 51 (34%) of the respondents replied undecided, 34 (22.7%) and 45 (30%) strongly agreed and agreed that the protesters were attracted by food. In the same way, 77 (51.3%) respondents strongly agreed while 42 (29.4%) agreed that social media served as meeting, mobilization and instigation forum for protesters.

Test of Hypotheses

Hypothesis One

H0: There is no influence of COVID – 19 non – pharmaceutical measures on hunger crisis in Nigeria.

H1: COVID – 19 non – pharmaceutical measures significantly influenced hunger crisis in Nigeria.

Table 4: Logistic Regression Analysis on Non – Pharmaceutical Measure on Hunger Crisis and Revolutionary

Hypothesis	Variables	Mean	STD	T value	F	R squared	Beta coefficient	P value
				2.986	9.828	.118		
DV	Hunger	2.17	1.368					
IV	Market lockdown	1.19	.548				.239	<0.05
IV	Movement restriction	1.27	.887				.203	<0.05
			11.645	7.939	.051			
DV	Deviant action	1.25	.601					
IV	Poor distribution of palliatives	1.38	.887				.226	

The hypothesis tests if the non – pharmaceutical measures have any significant effect on the hunger crisis experienced in Nigeria during the period under investigation. The dependent variable (hunger) was repressed on predicting variables (market lockdown and movement restriction). So, the non – pharmaceutical measures like market lockdown, and movement restriction really predicted the level of hunger experienced in Calabar, Cross River State Nigeria. Thus, Hunger = F (2, .118) = 9.828 <. 0.05 shows clear effect of the independent variable (market lockdown and movement restriction) on the dependent variables (Hunger situation) while R square depicts that hunger has a variable of .118, which is 11% of variance. On the area of revolutionary attitude, the deviant action variance was repressed on predicting variable poor distribution of palliatives by government; meaning therefore that the poor distribution of palliatives predicted the occurrence of deviant actions. Thus, deviant action = F (1, .051) = 7.939 < .05 with an R – square that depicts that deviant action has a variance of .051, which is 05% of variance. This means that from the data's presented, the null hypothesis is rejected; meaning by implication that the alternate hypothesis is accepted

Hypothesis Two

H_0: There is no change in the revolutionary reactions of Nigerians from pre – COVID – 19 emergency interventions to post COVID – 19 interventions;

H_1: There is a significant change in the revolutionary reactions of Nigerians from pre COVID – 19 emergency interventions to post COVID – 19 interventions.

Table 5: ANOVA on Non – Pharmaceutical Measures on Hunger Crisis and Revolutionary Tendencies in Three Time Periods.

Revolution Measures	Indicators	Mean	STD	F	Partial Eta square	Effect size	Mean difference	P value
Pre COVID – 19	1) Not food induced 2) Food induced Total	32.72 36.09 34.79	17.521 17.503 17.528	12.363	.786	.053	2) -38.067* 3) 4.928	< 0.05
During COVID - 19	1) Not food induced 2) Food induced Total	62.00 84.96 76.08	34.981 45.361 45.019				1) 38.067* 3) 33.140*	<0.05
After first Phase of COVID – 19	1) Not food induced 2) Food induced Total	41.81 43.05 42.57	21.826 20.476 20.945				1) 4.928 2) 33.140	<0.05

A one-way repeated measure ANOVA was conducted to compare the scores of food induced revolution scores on different time - periods – Measure 1 (pre – intervention), Measure 2 (during intervention) and finally measure 3 (post intervention). The mean and standard deviation was – measure 1 mean (34.79), standard deviation (17.528), measure 2 mean (76.08), standard deviation (43.019), measure 3 mean (42.57) standard deviation (20.945). The result shows that the partial eta square of the measures is .432, which is 43% (large measure), while the interaction of measure and revolution – measure is 0.53 (0.5%) which shows a medium effect size. This result therefore reveals that revolutionary reactions of Nigerians has differed significantly across the three time – periods F (1, .786) = 12.363, P = .000. A post hoc pairwise comparison using the Bonferroni correlation showed an increased score between pre – intervention and during COVID – 19 with change of 38.067 and during COVID -19 and post intervention change of 33.140. The increase in the level of revolution during COVID – 19 was statistically significant when comparing the revolutionary behaviours in the three time periods (38.140 vs. 22.26, p = .000). Therefore, we can conclude that the result for the ANOVA indicates a significant time effect of COVID 19 on revolutionary behaviours in Nigeria.

Discussion

From the study, the researchers established that COVID – 19 non - pharmaceutical measures caused food insecurity, thus, leading to food riots and unrest in Nigeria. It was revealed that the government inability to support the citizens at the time of plague and their inability to arrest the revolutionary causatives have contributed to the protracted revolutionary climate in Nigeria. The logistic regression analysis reveals that the calculated value for the effect of hunger is t (2.986), while t (7.939) is for the effect of the revolutionary attitude (deviant behaviour) in Calabar, Cross River State with a probability value of 0.00. For the fact that the probability value is less than 0.05 level of significance, the null hypothesis is therefore rejected. Thus, there is a significant difference in the mean rating of scores of the hunger variables and the revolutionary variables. In this circumstance, the independent variables that is used in predicting the hunger variable includes: market lockdown and movement restriction, while the revolutionary variables (deviant action) is predicted using the poor distribution of palliatives. The findings of this analysis therefore reveals that following a p. value which is

less than 5 % means that the independent variables (market lockdown, movement restrictions and poor distribution of palliatives) and dependent variables (hunger and deviant actions) is significant at a calculated 95% level of significance. It could therefore not be wrong to say that the COVID – 19 induced food crisis has continued to deepen the number or levels of vulnerabilities of acutely food insecure populations, thus heightening the impossibility of realizing Sustainable Development Goals (SDGs) number two (end hunger, achieve food security and improved nutrition and promote sustainable agriculture) in the nearest future. This is in tandem with the observation of Corps (2021) that the problem with Nigeria as far as this issue is concerned is traceable to the government insensitivity and the greed of politicians. It also agrees with Reluga (2010) that social distancing policies resulted to high cost on the citizens at different periods.

The study also ascertain whether hunger influenced change on revolutionary behaviours of Nigerians over a three-time phase – pre-COVID, during COVID and after first phase of COVID - 19 . It was found that that there was a clear difference in the way the citizens treated the laws of the government in the three time – periods. The result of the related hypothesis (i.e hypothesis 2) revealed a significant P-value of .000 with partial eta squared of .432, which is 43% level of difference across the three time – periods. The interaction effect between the independent and the dependent variables is also significant since it recorded a P-value of .018 though the level of difference is very small .053 according to Cohens analysis of effect size. The dependent variable, which is the revolutionary behaviours, measures a very large (43%) effect size, while the interaction effect size is small though measuring significant difference. From this analysis the null hypothesis which states that there was no change in the revolutionary reactions of Nigerians from pre COVID -19 emergency to post COVID – 19 interventions was rejected; meaning that there is a significant change in the revolutionary reactions of Nigerians from pre COVID – 19 emergency intervention to post COVID – 19 intervention. This finding agrees with view of Corps (2021) that the COVID – 19 response or intervention policies – lockdown, border closure, and the poor distribution of palliatives have aggravated multiple drivers of conflict and reinforced pre – existing patterns of violent behaviours by the government, armed groups and community leaders.

Conclusion

The research from the instrument used for data analysis and interpretation were recorded. From the research study, it is evident that the COVID 19 non – pharmaceutical measures have an enormous effect on food vulnerability in Nigeria during the COVID-19 period. In addition, the study was also able to ascertain that the level of revolutionary spirit in Nigeria became more intense during the COVID-19. Thus, following these two assertion, it can be concluded that the government's food security programmes are very low and also the government social unrest management is also very poor. The main strategy used in management of public opinion, especially violent opinions of the masses in Nigeria has always remained force. This has caused protractedness of strains and strife in the polity. In that case, the government will need to adjust from using hard strategy in conflict management to using dialogue and looking into key causatives of the problem so as to end the problem without creating other problems.

Recommendations

The following recommendations are made given the findings of this study:

1. The government should always embrace dialogue and avoid the use of force in solving problems related to food crises in Nigeria especially when it is orchestrated by governmental policies to avoid escalating such situation and creating more problems. In fact, the government should always be careful and strategic in managing conflict situations like food crises to avoid escalating such situation and destabilizing the country

2. The government should always consider public opinion when handling sensitive issues such as food crises that affect the public. This will go a long way to provoke conformity to the laws of Nigeria and curtail negative revolutionary behaviours in times of crises.

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