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Impact of Covid-19 Pandemic on Livelihood of Garri Agribusiness Owners in Ukwuani Local Government Area of Delta State, Nigeria.

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ABSTRACT

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The covid-19 pandemic has had devastating effects in many countries across the World, affecting every aspect of Nigerian economy. Most countries in sub-Saharan Africa met the crises in a weak and vulnerable position. Aside from the health/mortality effects of the pandemic in Nigeria, the seemingly clearer effect is the impact of lockdown measures on small scale agribusinesses owners and the economy at large. How people make a living and access markets is impacted by covid-19 across Ukwuani local government area and beyond. These disruptions are driven primarily by restrictions put in place to curb the spread of the virus. There are emerging signs of the negative impact of covid-19 on livelihood, income, nutrition and food security, including local food production and the informal economy's food marketing system. This article examines the impact of covid-19 pandemic on the income and livelihood of small scale garri agribusiness owners; the level of income of garri agribusiness owners before COVID-19 pandemic and; whether agribusiness owner's livelihood is positively correlated with the perceived presence of Covid-19 in personal network. Taro Yamani formula was used to determine a sample size of 399 respondents in the study area. Both descriptive and inferential statistics was used for data analysis. After analysing the generated data, the result of the study showed that before the pandemic, agribusiness owners made about ₦157,640 as profit. But during the pandemic, agribusiness owners experienced a decline in their profit (₦60,646.82). The study suggests/recommends some policy priorities; support food insecure households through direct food distribution; small-scale garri agribusiness household should collectively set up a food bank so as to assist each other in terms of need and; support vulnerable household to mitigate the impacts of income loss through credit access at 0% interest rate.

1.0 Introduction

Pandemics are global or worldwide epidemics occurring over a wide area, spreading across international boundaries and affecting a large number of people (Heath 2018). It can also be seen as a simultaneous global transmission of diseases or viruses that cut across boundaries and continents. The WHO declared COVID-19 as a pandemic when it was spreading rapidly across the world, affecting different countries (WHO 2020).

The COVID-19 pandemic has become one of the most serious threats to global markets and agriculture in recent times besides the threat to lives. Lockdowns, partial market closures and social distancing instituted

by different countries and Nigeria government to curtail the spread of the virus have adversely affected garri agribusiness owners and their livelihood and other supply-side businesses and services (Rosamond, 2020). Nigeria, like all the nations of the world, is navigating these uncertain times. The evolving uncertainty of the emergence of COVID-19 pandemic has adversely impacted the economies and businesses. The economic and other outcomes of COVID-19 are dependent on the baseline situation of communities, countries and regions, as well as their resilience to shocks. One noticeable fact is the recognition of the significance of agriculture, its upstream and downstream activities as



critical to the other businesses' survival despite the current restrictions enacted to stop the spread of the virus. Garri agribusiness owners have been affected by the pandemic and many have stopped operations due to lack of agricultural products supply. Many are on the verge of collapse as shops, restaurants are closed and other agribusinesses stop operation. Nigerians vulnerabilities to the impact of external shocks can be attributed to increased dependencies on global economies for fiscal revenues, foreign exchange inflows, fiscal deficit funding, and capital flows required to sustain the nation's economic activities. Barro, Ursula and Weng (2020).

The food and agribusiness sectors were affected to varying degrees with some food companies experiencing rapid increased demand for products as panic buying escalates across some countries and communities and in some cases, import competitors are restricted. The partial closure of critical food system infrastructure (rural producer markets, wholesale food markets and open-air retail food markets) led to the apparent shutting down of the traditional marketing system in Delta State as well as other parts of the country. Partial market closures by government during the covid-19 pandemic prevented transactions between producers, traders, wholesalers, retailers and consumers. With no define place for transactions, (markets opening only once in a week) supply was reduced, prices increased, livelihoods and income suffered, creating a major stress on food security. Insufficient and poor access to dry and cold-chain storage compounded the marketing problems, leading to increased food loss and waste. United Nations (2020).

This lockdown policy of the Nigerian government, even though had proven to be effective in the control of the spread of the virus, adversely triggers household crises. These crises range from hunger among agribusiness owners, shortage of food, low purchasing power and negative coping strategies. Covid-19 policies affected small scale garri agribusiness owners, the small-scale owners cannot access farmers/suppliers or sell their goods to generate money for their upkeep. These measures had destabilized small scale garri agribusiness owners household in the study area making them to adopt negative coping strategies such as skipping of meal, reducing food consumption, engaging in low-nutrient food and excessive borrowing (debt) to buy food.

Problem Statement

The outbreak of coronavirus disease in 2019 (COVID-19) in China and its spread to other countries including Nigeria has had a destructive impact on health, agriculture, agribusiness, economy and infrastructure.

But the evidence in recent studies and literature (Piguillem & Shi 2020; WHO 2020) showed that more researchers, governments and major stakeholders have rather engaged in research that intends to bring a cure to the virus. Other studies have investigated the pandemics impact on violence against children and women (Pereira et al. 2020; Peterman et al. 2020), health (Berger et al. 2020; United Nations 2020; World Health Organization [WHO] 2020), economy (Eichenbaum, Rebelo & Trabandt 2020), education (United Nations 2020) and human safety (Lattouf 2020; National Domestic Violence Hotline 2020). This has created some gaps in addressing the effects of the epidemic on agriculture, agribusiness and food crises in Delta state Nigeria. However, few studies have pointed out the implications of the novel virus on agriculture (Guterres 2020; UNSCN 2020; World Food Programme (WFP) 2020). According to Food and Agriculture Organization (FAO 2020), the implications include hunger, violence against women, girl child and negative coping habits, amongst others. These implications are a threat to humanity and global peaceful co-existence as the lockdown has inflicted devastating household hardships (food shortage, low disposable income, rape, sex-for-food and skipping of meals, amongst others). (Hamza 2020; Laetitia 2020; Laura 2020; NCDC 2020; UNHCR 2020; United Nations 2020).

Keeping agribusiness enterprises running is an indispensable economic component in the ongoing battle against COVID-19, yet discussions on the outbreak have thus far devoted very little attention to the challenges facing garri agribusiness owners and the need to promote agribusiness enterprises to mitigate the recessionary impact of COVID-19. The promotion of agribusiness enterprises to minimize the impact of the COVID-19 crisis on the economy is critical. This paper, therefore, assesses the immediate challenges/effects the pandemic had posed on the income, livelihood of garri agribusiness owners in the study area and suggests mitigation measures through the promotion of agricultural enterprises to ensure a sustainable sector in the post-crisis period.

Objectives of the Study

The broad objective of the study is to assess the impact of Covid-19 pandemic on livelihood of garri agribusiness owners in the study area.

Specifically, the paper is designed to provide an insight on;

- the level of income of agribusiness owners before COVID-19,
- estimate whether agribusiness owner's livelihood is positively correlated with the

perceived presence of Covid-19 in personal network.

2.0 Methodology

2.1 Study Area

Ukwuani LGA is found in Delta state, South-south geopolitical zone of Nigeria with the headquarters of the area in Obiaruku. The LGA was created on the 4th of December 1996 from the Ndokwa West LGA. The LGA is made up of several towns and villages which include Obinomba, Obiaruku, Umutu, Umukwata, Akoku, Amai, Eziokpor, Obiarumu and Ebedei. The estimated population of ukwuani local government is put at 212,334 inhabitants with the area predominantly occupied by members of the Ndokwa ethnic group. Agribusiness and trade is an important economic activity in Ukwuani local government area hosting several markets such as the Umutu- ultra- modern market where a variety of commodities are bought and sold. Fishing also booms in Ukwuani LGA with the areas water bodies being rich in seafood. Other important economic activities engaged in by the people of Ukwuani LGA include, farming, lumbering and wood carving, <https://www.manpower.com.ng/places/Iga/244/ukwani> (2013).

2.2 Sampling Procedure

Both descriptive and inferential statistics were used for the analysis of data. Frequency distribution tables was used to analyse the socio-economic characteristics of respondents in the study area who are garri agribusiness owners. While correlation coefficient was used to estimate whether garri agribusiness owners livelihood is positively correlated with the perceived presence of Covid-19 in personal network, Independent t-test was used to compare the estimated income of garri agribusiness owners before and during the Covid- 19 crisis.

2.3 Data Collection

Data for this study was obtained from both primary and secondary sources. The primary data was obtained through the use of a questionnaire while other relevant information was generated through unpublished research works, internet, magazines, textbooks, journals etc. **Taro Yamani formula** ($n = N/1 + N(e)^2$) was used to determine the sample size of 399 respondents from the study area. The study concentrated on small scale garri agribusiness owners in the nine (9) communities of ukwuani LGA. Total number of 37 respondents were randomly selected from each of the communities except for Obiaruku community where 100 respondents were selected. The reason being that the community is the headquarter and also has a larger market as compared to other communities in Ukwuani Local government area.

2.4 Model Specifications

Pearson's correlation

The relationship between the dependent and independent variable is given as:

$$Y = f(X_i).$$

The correlation matrix is mathematically denoted as:

$$r = \frac{n \sum xy - (\sum x)(\sum y)}{\sqrt{(n \sum x^2 - (\sum x)^2)(n \sum y^2 - (\sum y)^2)}}$$

Where:

r = correlation

n = number of samples variables

x = independent variables

y = dependent variables

T-test

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{N_1} + \frac{S_2^2}{N_2}}}$$

Where:

\bar{X}_1 = mean of first set of values

\bar{X}_2 = mean of second set of values

S_1 = standard deviation of first set of values

S_2 = standard deviation of second set of values

N_1 = total number of values in first set

N_2 = total number of values in the second set.

3.0 Results and discussions

Table 1 shows the socio-economic characteristics of the respondents, the table revealed that 50.4%, of the respondents were male. While 49.6% were female. The result agrees with the study carried out by Chisom (2021), on the impact of Covid-19 on supply chain, where the males are more than their female counterpart.

The study also revealed that majority of the respondents (56.6%) in the study are between the age brackets of 41-61 years of age. This implies that most of the respondents in the study area are in the active age, meaning that at this age, they are more efficient and productive.



Table 1: Socio- Economic Characteristics of Respondents in the Study Area

Variable	Frequency	Percent	Mean/mode
Gender			
Male	201	50.4	Male
Female	198	49.6	
Age			
Less than 20 years			
20 - 40 years	64	16.0	
41 - 61 years	226	56.6	41 years
62 - 82 years	104	26.1	
Above 82 years	5	1.3	
Household size			
Less than 3 persons	112	28.1	
3 - 5 persons	84	21.1	6 persons
6 - 8 persons	199	49.9	
Above 8 persons	4	1.0	
Years in business			
Less than 5 years	64	16.0	
5 - 15 years	226	56.6	11 years
16 - 26 years	104	26.1	
27 - 37 years	5	1.3	
Size of business			
Less than 2	20	5.0	
2 -5	371	93.0	5
6 – 9	7	1.8	
Above 9	1	.3	
Pandemic effect			
Yes	271	67.9	Yes
No	128	32.1	
Covid-19 awareness			
Very high	68	17.0	
High	176	44.1	High
Relatively high	139	34.8	
Not aware	16	4.0	

Source: (Field Survey 2022).

The study also showed that the larger proportion of the respondents have spent between 5-15 years (56.6%) in their respective agribusinesses, while 16.1% of the respondents spent 5 years and below. The study also revealed that majority (93.3%) of the respondents in the study area have a relatively small agribusinesses, this study implies that more than half of the respondents are small scale agribusiness owners, which could be the

reason why they were so much affected by the pandemic. The study is in agreement with the report of Amusan and Agunya (2021), which stated that the Coronavirus disease and lockdown had been observed and found to be a contributory factor to low disposable household income and had destroyed a lot of livelihood in Nigeria. Majority (67.9%) of the respondents also affirmed that Covid -19 pandemic has affected their sources of livelihood to a great extent. Almost all the respondents were aware of the existence and danger of the pandemic on livelihood and agribusiness. Only a few (4.0%) percentage were not aware of the virus.

Table 2: Level of Income before and During the Covid-19 Pandemic

VARIABLE	FREQUENCY	PERCENT	MEAN
INCOME BEFORE			
LESS THAN 500,000	372	93.2	157,640.00
500,000 - 1,000,000	18	4.5	
1,000,100 - 1,500,000	7	1.8	
1,500,100 - 2,000,000	2	.5	
2,000,100 -2,500,000	372	93.2	
INCOME DURING			
LESS THAN 100,000	350	87.7	60,646.82
1000,000 - 300,000	19	4.8	
501,000 - 800,000	17	4.3	
801,000 - 1,100,000	3	.8	

Source: (Field Survey 2022)

Table 4.2 shows the level of income of respondents before and during the pandemic. The table clearly shows that 93.3% which are majority of the respondents made about **N57,640** as profit on a monthly basis which implies that garri agribusiness owners in the study area made at least **N5630** on a daily basis from their agribusinesses. But during the pandemic, the respondents were unable to sell their goods on a daily basis due to the lockdown and partial market closures, (they made only **N60,646.82**) the respondents could only sell once or twice in a week, this have greatly affected their livelihood and in some cases the respondents could not continue their businesses since they have used up their initial capital to feed themselves and their families.

Table 4.3 T-test results showing the Income of Respondents before the Pandemic and During the Lockdown.

Paired Samples Statistics					
	Mean	N	Std. Deviation	Std. Error Mean	
Pair 1	Income before the pandemic	157640.00	299537.805	14995.647	
	income during the lockdown	60,646.82	179042.260	8963.324	

Source: (Field Survey 2022)

Table 4.3 shows the level of income of respondents before the pandemic and during the lockdown in the study area. The result of the t-test further revealed that there is a significant difference between the income of respondents before the pandemic and during the lockdown, this implies that garri agribusiness owner's livelihood has been greatly affected as a result of market closure and lockdown as most of the respondents experienced a decline in their earning capacity

Correlations			
		INCOME DURING THE LOCKDOWN	COVID-19 AWARENESS
Income during the lockdown	Pearson Correlation	1	.011
	Sig. (2-tailed)		.830
	N	399	399
Covid-19 awareness	Pearson Correlation	.011	1
	Sig. (2-tailed)	.830	
	N	399	399

Table 4: Correlation between Garri Agribusiness owner's livelihoods with the perceived presence of Covid-19

The Pearson correlation coefficient of income during the lockdown and covid-19 awareness (0.830; $p > 10\%$) was positive but not statistically significant.

Table 4.4 shows the relationship between garri agribusiness owner's livelihoods with the perceived presence of covid-19. Correlation matrix was used to determine the relationship between agribusiness owner's

livelihood with the perceived presence of Covid-19, the result indicated a positive relationship at **0.830; $p > 10\%$** . This implies that the livelihoods of garri agribusiness owners was greatly impacted by the perceived presence of Covid-19 in personal network.

4.0 Conclusion and recommendations/policy implication

The result of this study showed that the outbreak of the novel virus (COVID-19) pushed governments of different countries, including

Nigeria and the study area, to implement specific safety measures (such as lockdowns, self-isolation or quarantine and social distancing). Evidence shows that these measures, especially the lockdown order and partial market closures, resulted to crises that have, and can, affect garri agribusiness owner's livelihood and their household food security. The coronavirus disease and lockdown are a threat to all the core segments of food security (availability, accessibility, affordability, stability and utility). It also revealed that the income of respondents during the pandemic was significantly higher than income during the lockdown, this is because of the market closures, self-isolation and lockdown policies. The livelihoods of garri agribusiness owners were threatened and majority of the respondents were unable to feed themselves and their families as a result of the pandemic. Thus, sources of livelihood were destroyed and huge debts was incurred my agribusiness owners in order to feed survive during the lockdown. Similarly, the study found that COVID-19 lockdowns affect accessibility of food.

The study suggests/recommends that;
Small-scale garri agribusiness household should collectively set up a food bank so as to assist each order in terms of need;
Adoption and introduction of what's app and telegram group chats (Agricultural ICT) to communicate prices and products availability.

The government should support food insecure households through direct food distribution; Support vulnerable house hold to mitigate the impacts of income loss through credit access at 0% interest rate.

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