International Journal of Agricultural Science, Research and Technology in Extension and Education Systems (IJASRT in EESs)
Available online on: http://ijasrt.iau-shoushtar.ac.ir
ISSN: 2251-7588 Print
ISSN: 2251-7596 Online
2022: 12(1):21-35, *DOR: 20.1001.1.22517588.2022.12.1.4.3*

Received: 07 January 2022
Reviewed: 10 February 2022
Revised: 17 February 2022
Accepted: 30 March 2022

Beyond The Covid-19 Global Pandemic: An Assessment of Agri-Food Related Micro, Small and Medium Enterprises' Uptake of Insurance Covers

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Abstract

This study examined the impact of the global pandemic on the level of production income and the uptake of insurance covers among agri-food related MSMEs' in South West Nigeria. The study adopted treatment effects model, the logistic regression model, Pearson's and Cramer's V correlation coefficient to analyse the data for the study. Sampled households were selected through a snowballing sampling technique using the online survey method to arrive at 192 MSMEs from Urban South West region of Nigeria comprising of 132 controls and 60 treated MSME operators. The treatment variable for this study is the uptake of insurance cover. Analysis of the sample for the study showed that the uptake of insurance cover MSMEs' in the study area stand at 31.25 percent. The result showed that MSMEs' who were affected by the global pandemic are more likely to take up insurance cover to mitigate future risks than those who were not seriously affected. The result of the treatment effect models further revealed that the production income and MSMEs' willingness to take insurance cover were both significantly impacted by the global pandemic. It was therefore recommended that insurance companies come up with tailor-made insurance products for MSMEs. Also, that flexible payments methods be allowed so that more micro enterprises can get cover which will in turn boost their confidence that in the event of an adverse market condition they will not be worse off.

Keywords: Agri-food, MSMEs, Insurance, Covid-19

1. Introduction

Globally, Micro, Small and Medium Enterprises (MSMEs) play an important role in the economic development of many countries. The aggregate contribution of MSMEs to national development cannot be overlooked. This is because the development of MSMEs is viewed as one of the sustainable ways of reducing the levels of poverty and improving the quality of livelihoods through job and wealth creation (Endris & Kassegn, 2022). According to the World Bank, Micro, Small and Medium Enterprises (MSMEs) are defined as follows; micro enterprises: 1–9 employees; small: 10–49 employees; and medium: 50–249 employees (Kushnir et al, 2010). However, the local definition of MSME varies from country to country, and is based not only on number of employees, but also by the inclusion of other variables such as turnover and assets.

In the private sector, Small or micro firms are the driving force of innovation and sustainability. This is because, studies have it that there are about 365-445 million MSMEs in emerging markets: 25-30 million of these are formal SMEs, 55-70 million are formal micro, and 285-345 million are informal enterprises (United Nations the Sustainable Development Goals Report, 2018). Also, MSMEs according to IFC (2017) have been recognized as the *'lifeblood'* and *'economic muscle'* of most countries. Despite this significance however, most of these MSMEs do not survive beyond a decade after being established while for others, surviving has continued to be a constant struggle (Ngoasong

& Kimbu, 2016; 2019). While several factors are associated with these struggles, the inability to properly manage risks can be regarded the most critical (Gbireh, 2013).

In developing countries, the formal SME sector is competing with a large informal sector. According to the World Bank, out of the estimated 445 million micro, small and medium enterprises (MSMEs) in emerging markets, over 70 per cent are being operated informally which can be as high as 90 per cent in some of these countries (IFC, 2017). This brings to the fore the need to emphasize appropriate risk management strategies such as insurance uptake so that these enterprises will be able to remain in business in the event of unforeseen catastrophes such as fire, theft, burglary, business interruption as a result of pandemic such as Covid-19 among others. MSMEs have been found to be very vulnerable to various hazards, however, evidence indicates that insurance uptake among MSMEs is still very low. More so, in most developing countries, risk management among informal MSMEs is undefined and highly ineffective resulting in significant increase in non-performing loans, a huge credit gap, inadequate and difficulty in accessing credit for business purposes among others. Essentially, several government initiatives, non-government organizations, and multilateral agencies effort at creating an enabling environment, financial sector infrastructure development, and through appropriate lending operations and policy work targeted improving access to credit risk and having easily executable collateral have proved to be effective only with the availability of insurance (IFC, 2017).

Bodies of literature abound on the importance of SMEs as employment generators, innovators, factors in the supply chains of larger enterprises, and important contributors to gross domestic project. However, few studies exist that investigate the importance of insurance on the growth of MSMEs especially in the post-pandemic era. This study will therefore fill this gap in literature. This study will also serve as reference materials for future researches. The importance of studying the impact of insurance uptake among MSMEs cannot be overemphasized. Proper risk management reduces or eliminates the financial impact in the event that a particular insured risk crystallizes. Insurance can make MSMEs resilient to shocks, making them more financially sound (ADB Briefs, 2017).

In Sub- Saharan Africa, for example, less than 2 per cent of MSMEs have any form of insurance. Even those that have insurance are only covered for the personal impacts on their health expenses, while their enterprises remain highly exposed to risks. Furthermore, the COVID-19 has especially exposed MSMEs to a high level of risk. Across the world there are inadequate insurance products for MSMEs. In developing economies, industry players need to rethink MSME insurance as current approaches seem not to be yielding appropriate result. Currently, commonly available insurance products are not adapted to the needs of MSMEs. However, while MSMEs may find some value in existing micro-insurance products, as businesses grow insurance needs become more sophisticated and heterogeneous, which often leaves small and medium-sized enterprises (SMEs) entirely out in the cold (OECD, 2015). These call for evidence-based research on the effect of the global pandemic on MSMEs uptake of insurance covers which is the focus of this research.

In Nigeria, the agricultural value chain comprises of about 70 per cent of the MSME operators in the economy. Micro, Small, and Medium scale enterprises (MSMEs) especially in the agri-food sector is very crucial in addressing food security, meeting the growing demands of the consumers thereby reducing poverty while promoting inclusive and sustainable development. Therefore, an agribusiness sector that links farmers and consumers plays a pivotal role in food security (Agri-Food Chain Coalition, 2018). The main objective of this paper therefore is to examine the relationship between the global pandemic (Covid-19) and insurance uptake among MSMEs in Nigeria. The specific objectives are to:

i. Profile the nature of MSMEs and examine the level of awareness and Uptake of Insurance Services among MSMEs;
ii. Assess whether the level of production income, willingness to take insurance cover among MSMEs is in any way influenced by the global pandemic;
iii. Examine the effect of the global pandemic on MSMEs' uptake of Insurance Cover
iv. Investigate and identify the constraints to the uptake of insurance cover among MSMEs; and
v. Examine the impact of the global pandemic (Covid-19) on the uptake of insurance covers and productivity MSMEs.

2. Materials and Methods

2.1 Study Area

This study was carried out in South West, Nigeria which consists of six states; Lagos, Ogun, Oyo, Osun, Ondo and Ekiti states. The region which is also known as the South West geographical zone of Nigeria is bordered by Lagos State to the south, Oyo and Osun states to the north, Ondo State to the east and the Republic of Benin to the west. The

people of the states are predominantly farmers, traders, and artisans. The area lies between longitude 2°311 and 6°001 East and Latitude 6°211and 8° 371N with a total land area of 77,818 km^2 and an estimated population of 32.5million people (NBS estimate, 2022)

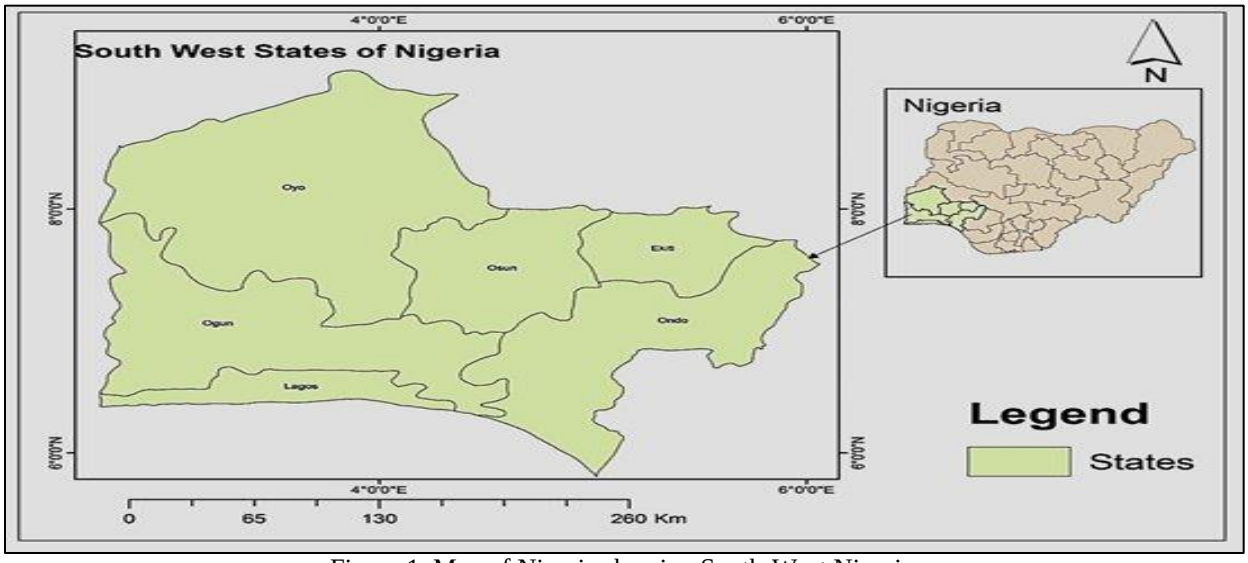

Figure 1. Map of Nigeria showing South-West Nigeria

2.2 Nature and Sources of Data

This survey used both primary and secondary data. The secondary data were collected from journals reports, newsletters, published research works, internet and books and the primary data was collected through individual questionnaires. This survey was an online investigation that was carried out via Google forms. This online survey tool is a Google application that allows quick creation and distribution of forms to gather information that are usually saved in a Google spreadsheet in Google drive. The social media served as a catalyst in carrying out of the research, especially in the process of distribution of the questionnaire Google forms. The Respondents were communicated to via WhatsApp technology. This process of data collection ensured easy access to respondents, minimal cost of research materials/instruments, reduced expenses and enhanced the quantity and quality of data collected from the respondents. Also, the option of an online investigation offered flexibility for respondents to share their views concerning the MSMEs' uptake of Insurance Covers in Nigeria. It also factored in the restriction in physical contact as a result of the Pandemic.

2.3 Sampling Procedure

This study employed a two (2) stage sampling technique to select 192 MSME Operators from the study area.

- The first stage was the purposive selection of Urban South-western geo-political zone of Nigeria. The purposive sampling technique is a non-probability sampling technique which relies on the judgment of the researcher in the selection of the sample for the study. This is because the study focuses on specific characteristics of a population that are of interest (MSME Operators). Also, most of the MSMEs are resident in the urban centers.
- While the second stage was the selection of 192 MSMEs through a snowballing technique. The snowballing technique is a form of non-probability sampling in which decisions concerning the individuals to be included in the sample are based on their knowledge of the research issue (MSME Operators). This technique is quite suitable for use where member of a population is difficult to locate, and members are closely connected.

2.4 Analytical techniques

This study employed the descriptive statistic, Pearson Correlation Coefficient, Cramer's V Correlation Coefficient, the Logistic model and the Propensity score matching method in analyzing the data that was collected.

2.4.1 Descriptive Statistics

The descriptive statistics was used to analyse the socioeconomic characteristics of the MSMEs that were sampled for this study. This includes measures of mean, standard deviation, frequency distribution, bar and pie charts.

2.4.2 Pearson Correlation Coefficient

Pearson Correlation Coefficient (r) is a measure of linear correlation between two sets of data. It is the ratio between the covariance of two variables and the product of their standard deviations. Thus it is essentially a normalized measurement of the covariance, such that the result always has a value between −1 and 1. This measure can only reflect a linear correlation of variables and ignores any other types of relationship or correlation.

2.4.3 Cramer's V Correlation Coefficient

Cramer's V Correlation is similar to the Pearson Correlation coefficient. While the Pearson correlation is used to test the strength of linear relationships, Cramer's V is commonly used to calculate correlation in tables with more than 2 x 2 columns and rows. Cramer's V correlation varies between 0 and 1. A value close to 0 means that there is very little association between the variables. A Cramer's V of close to 1 indicates a very strong association.

2.4.4 Logistic Model

The logistic model was used to assess the effect of the global pandemic on insurance uptake among MSME Operators. It has the form:

$$Logit\ (Y) = natural\ log\ (odds) = \ln\left(\frac{\pi}{1-\pi}\right) = \alpha + \beta X \quad (1)$$

$$\pi = probability\ (Y = outcome\ of\ interest/X = x, \text{a specific value of X}) = \frac{e^{\alpha+\beta x}}{1+e^{\alpha+\beta x}}$$

Where: $\pi = probability\ of\ the\ outcome\ of\ interest$

$\alpha = intercept\ of\ Y$

$\beta = Regression\ coefficient$

$e = 2.71828\ (base\ of\ natural\ logarithims)$

Where:

Y_i = Do you have an insurance cover? (Yes = 1, 0 = otherwise)

$X_{1i}, X_{2i} \ldots X_{ni}$ = vectors of explanatory variables

$\beta_0, \beta_1 \ldots \beta_n$ = coefficients of explanatory variables

Where;

X_1= Age of the MSMEs' Operator (years)

X_2= Gender of MSMEs' Operator (Male =1, 0 otherwise)

X_3 = Years of Business Experience

X_4 = Members of Cooperative Societies (Yes =1, 0 otherwise)

X_5 = Awareness of the Insurance Concept (Yes =1, 0 otherwise)

X_6= Average Monthly Income (N)

X_7 = Access to Credit (Yes =1, 0 otherwise)

X_8= High Cost of Premium

X_9= Business was Affected by the COVID-19 Pandemic (Yes =1, 0 otherwise)

2.4.5 Propensity Score Matching Method

This was used to assess the impact of the COVID-19 global pandemic on the uptake of insurance covers among MSMEs in the study area. The propensity score is the probability of insurance uptake rather than non-uptake of insurance in a treatment group. In the treatment effect literature, this predictor given observable variables is an important intermediate steps, even though ultimate interest lies in outcome of that treatment (Cameroon & Trivedi, 2009). A balancing test is normally required after matching to ascertain whether the difference in covariates between the two groups in the matched sample have been eliminated, in which case the matched comparison group can be considered, as a plausible counterfactual (Lee, 2008). After matching, there should be no systematic differences in the distribution of covariate between the treated and control groups. As a result, the standardized mean difference, pseudo-R squared should be lower and the joint significance of covariate should be rejected.

If there are unobserved variables that simultaneously affect the operators' decision and the outcome variable, a selection or hidden bias problem might arise to which matching estimators are not robust. While this controlled for many observable, it also checks the sensitivity of the estimated average participation effects to hidden bias, using the Rosenbaum (2002) bounds sensitivity approach. The purpose is to investigate whether inferences about treatment effects may be changed by unobserved variables. However, the main parameter of interest is the average treatment effects on the treated. This is given by:

$$ATT = E(Y_1 - Y_0/D = 1) = E(Y_1/D = 1) - E(Y_0/D = 1) \quad (3)$$

Where $Y_1$is the treated outcome, Y_o is the untreated outcome, D indicates treatment status and is equal to 1 if the individual receives treatment and 0 otherwise. The evaluation problem arises from the fact that the untreated outcome for a treated individual E (Y_o/D=1), can be never be observed. Using the outcome for untreated individuals as an estimate of the counterfactual will generate bias equal to:

$$B = E(Y_1/D = 1) - E(Y_0/D = 1) \quad (4)$$

If the selection is based on variables that are observable, the problem of selection bias can be solved by controlling for these variables in a regression analysis or the propensity match method.

3. Results and Discussion

This section presents and discusses the results of the data analysis. The socio-economic characteristics examined include variables such as age, gender, marital status, educational attainment of sampled MSME Operators in the study area. The level of insurance uptake, the effect of the global pandemic MSMEs' uptake of insurance and the constraints faced by the MSMEs in order of severity were also discussed.

3.1 Socioeconomic Characteristics of MSME Operators

The result in table 1 revealed that about three- fifths (57.8 percent) of the respondents were between the ages of 31 and 40 years and are considered to be in their economically active years while only few were aged 51years and above. The average age of the operators stood at 37.3±7.2 years which imply that the MSME operators are young and vibrant. This could affect their uptake of insurance positively. Similar finding was reported by Kamara & Makori (2017) in their study on determinants of uptake of insurance services among small and medium enterprises where four-fifths (80%) of the respondents were aged 20 to 39 years. Also, table 1 shows that majority of the MSME operators (55.7percent) were males. Based on this result, it can be deduced that MSME operators in the study area is dominated by men.

With respect to marital status, a greater percentage of the respondents were married (58.7 percent). This result corroborates the findings of Jatto (2019) in the study on assessment of farmer's awareness of agricultural insurance packages: evidence from "farming is our pride" communities in which 89 percent of the farmers were married. The result of the educational status of the MSME operators showed that over three-fifth (73.4 percent) of the respondents had secondary education while 26.6 percent had primary education. This implies that most of the respondents had at least one form of formal education which should have a positive effect on uptake of insurance since educated people have more positive attitude to insurance than less educated ones.

Also, majority (81.3percent) of the MSME Operators are engaged in a low capital business venture such as the sales of agricultural produce with less than 10 employees. Table 1 also shows that a greater percentage of respondents (84.8 percent) earn less than N56, 000. The mean monthly income is greater than N35, 000. This reflects that most of the MSMEs operators are actually generating income and are therefore exposed to diverse risks thus a positive effect on uptake of insurance.

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Table 1. Socioeconomic Characteristics of MSME Operators

Socioeconomic Characteristics	Frequency	Percentage
Age (in years)		
≤30	43	22.4
31-40	111	57.8
41-50	26	13.5
≥51	12	6.3
Gender		
Male	107	55.7
Female	85	44.3
Marital Status		
Single	74	38.5
Married	113	58.9
Divorce	5	2.6
Educational Status		
Secondary	51	26.6
Tertiary	141	73.4
Primary Occupation		
Full Time Business Operator	50	26.0
Product Marketing	21	10.6
Civil/Public Service	110	57.3
Produce Processing	11	5.7
Categories of MSME Enterprises		
Micro (<10 employees)	156	81.3
Small(11-49 employees)	32	16.7
Medium (>50employees)	4	2.0
Monthly Income (N)		
<20,000	80	41.6
20,000-55,999	83	43.2
≥56,000	29	15.2
Years of Business Operation		
≤ 5	110	57.2
6-10	48	25.0
11 -15	15	7.8
>15	19	9.9
Membership of Cooperative Societies		
Members	52	27.1
Non-members	140	72.9
Access to Credit Facilities		
Yes	114	59.4
No	78	40.6
Sources of Credit Facilities		
None	78	40.6
Family and Friends	30	15.6
Cooperative Societies	44	23.0
Microfinance Banks	5	2.6
Commercial Banks	35	18.2

Source: Online Survey, 2021

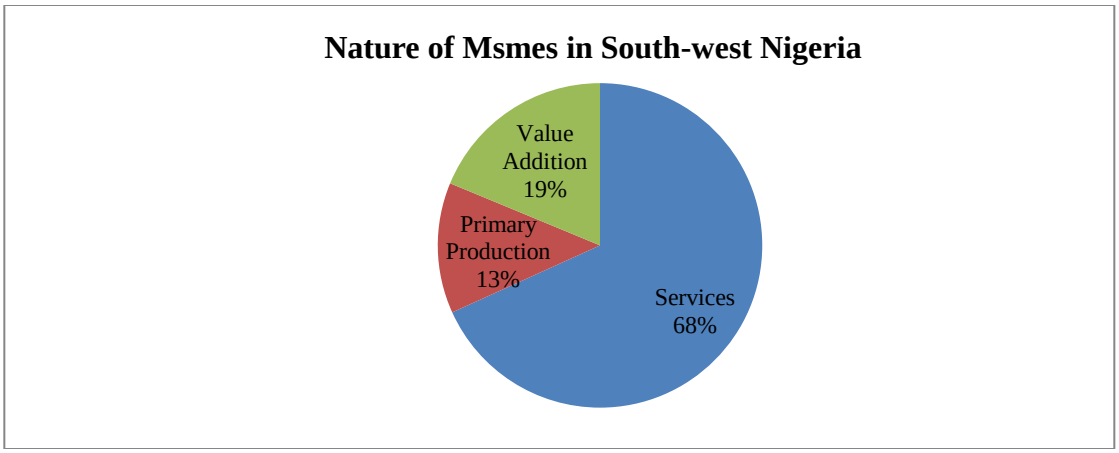
Also, majority (81.3percent) of the MSME Operators are engaged in a low capital business venture such as the sales of agricultural produce with less than 10 employees. Table 1 also shows that a greater percentage of respondents (84.8 percent) earn less than N56, 000. The mean monthly income is greater than N35, 000. This reflects that most of the MSMEs operators are actually generating income and are therefore exposed to diverse risks thus a positive effect on uptake of insurance.

Furthermore, experience is the skill or knowledge acquired from a particular act carried out over time and which eventually distinguishes one out of many others. Results revealed that majority (82.2 per cent) of the MSME operators have between 1-10 years of business experience while only 9.9 per cent had more than 15 years of business experience. The mean years of business experience of the MSME operators stood at 6.59±5.8 years. This implies that majority of the operators are highly experienced and it is anticipated that the higher the years of business experience the higher the output and risk and hence the need for insurance cover uptake.

Also on table 1, most (72.9 percent) of the MSME operators were not members of any form of cooperative association thus exposure to high risks and its effects with limited help from the available cooperative associations. More than half of the MSME operators (59.4 percent) had access to credit facilities while 40.5 percent do not have access to credit. This implies that credit facilities were not accessible to about two-fifth of the sampled operators. Therefore, there is a need to increase access to credit facilities as this will ensure improved productivity which will give rise to an increased need for the uptake of insurance cover.

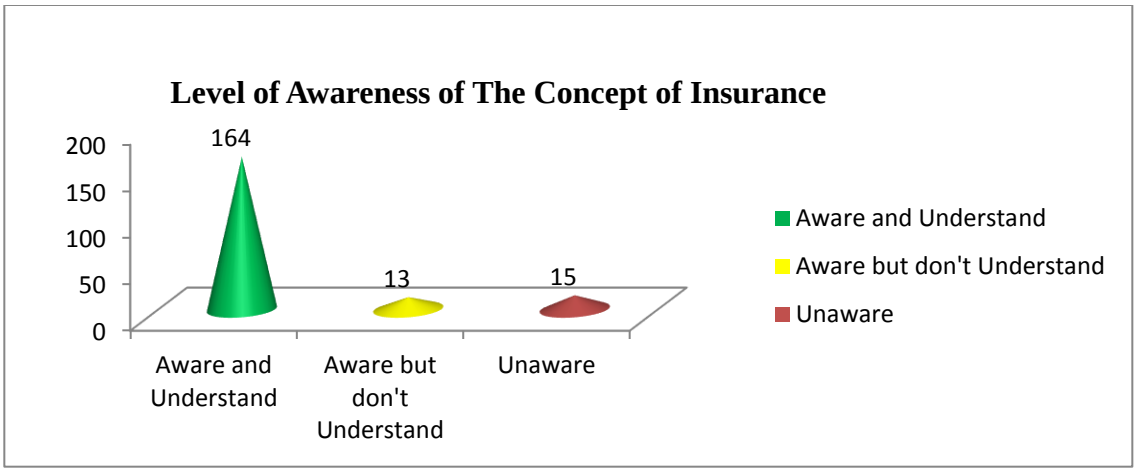
3.2 Nature of MSMES and The Level of Awareness of Insurance Among Msmes Operators in South-West Nigeria

This section presents pictorial analysis of variables driving the decision to know the extent of awareness of insurance among MSMEs in South Western Nigeria.



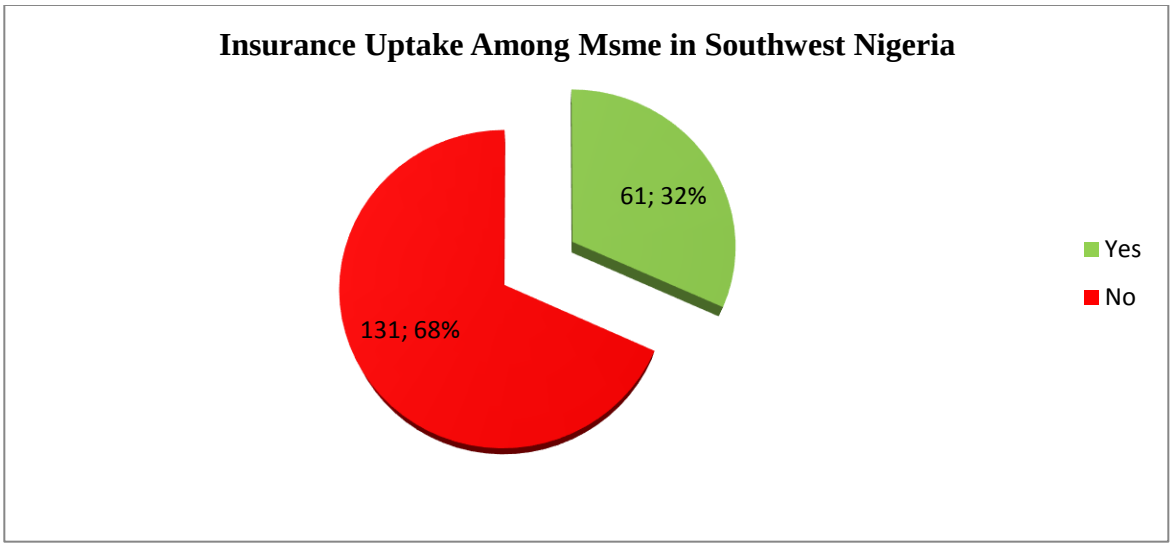
Source: Online Survey, 2021

Figure 2. Nature of MSMES in South-West Nigeria

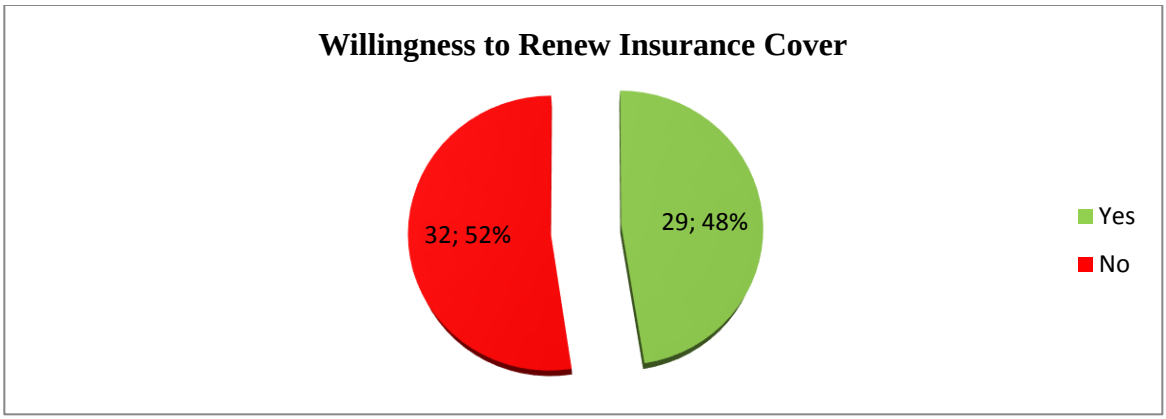


Source: Online Survey, 2021

Figure 3. Level of Awareness of the Concept of Insurance

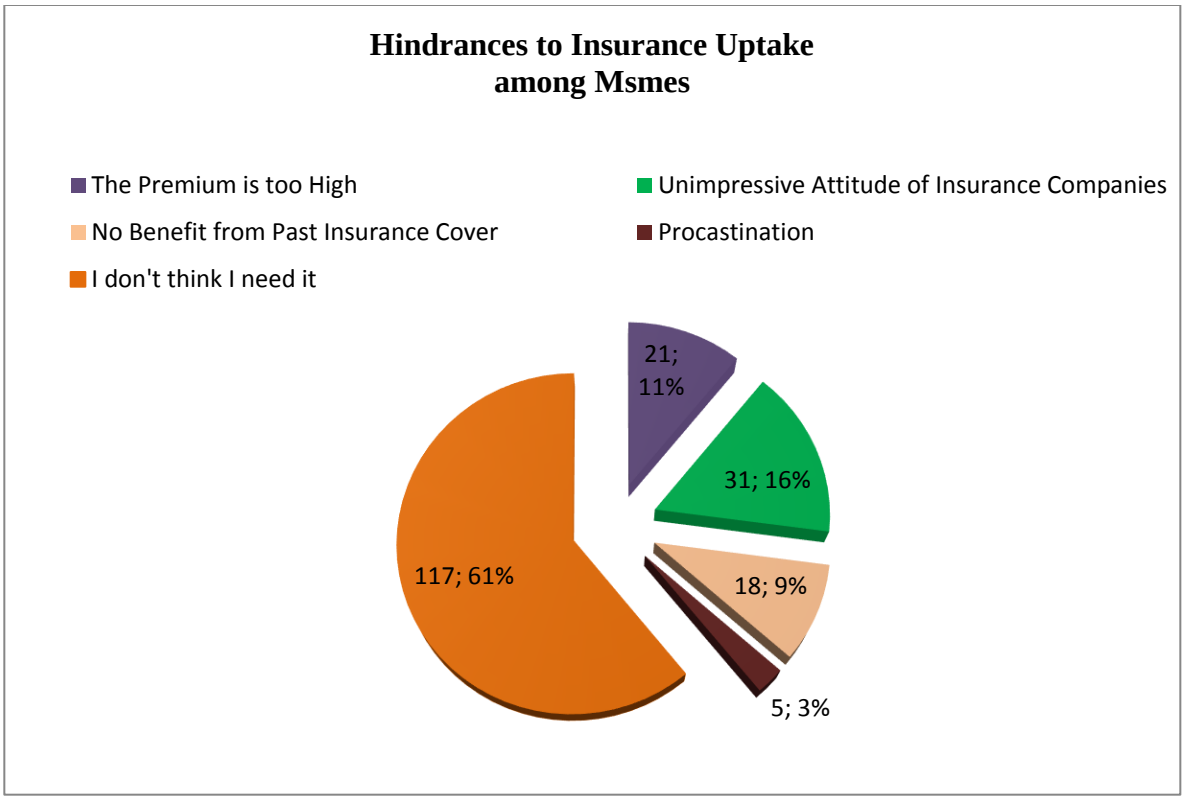


Source: Online Survey, 2021
Figure 4. Insurance Uptake among MSMEs

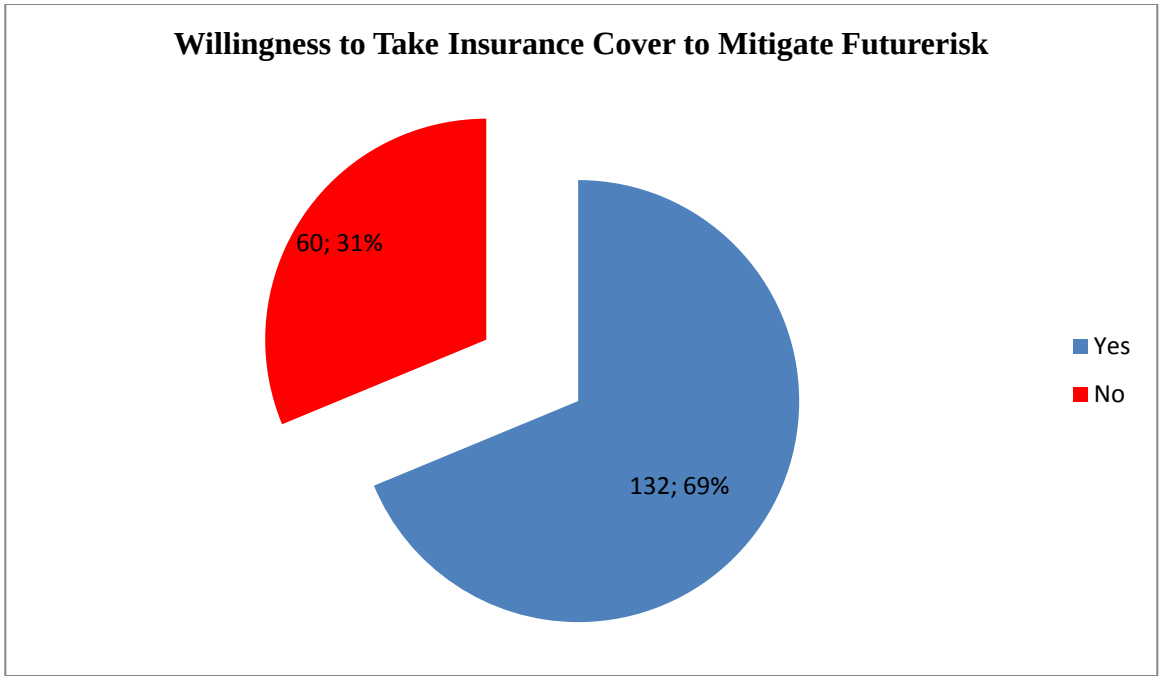


Source: Online Survey, 2021
Figure 5. Willingness to Renew Insurance cover among MSMEs

Figure 4 revealed that among the sampled MSMEs, only 31.8 percent had insurance cover while over three-fifths (68.2 percent) did not have any form of insurance cover. This implied that majority of the MSMEs were exposed to one form of risk or the other and are more vulnerable to the effect and impact of economic disruptions such as the global pandemic than their counterparts that are insured. This high percentage of no insurance uptake can be because of inadequate access to information on the availability and benefits of insurance products and services. Also, poor testimonials and image of insurance companies might be responsible for the inaction of the people towards insurance products and services. Also, among the MSMEs that have obtained insurance, figure 5 shows only 47.5 percent had the intention of renewing their insurance cover while more than half (52.5 percent) do not intend to renew. This might be due to high cost of premium and unsatisfactory services rendered by the insurance companies.



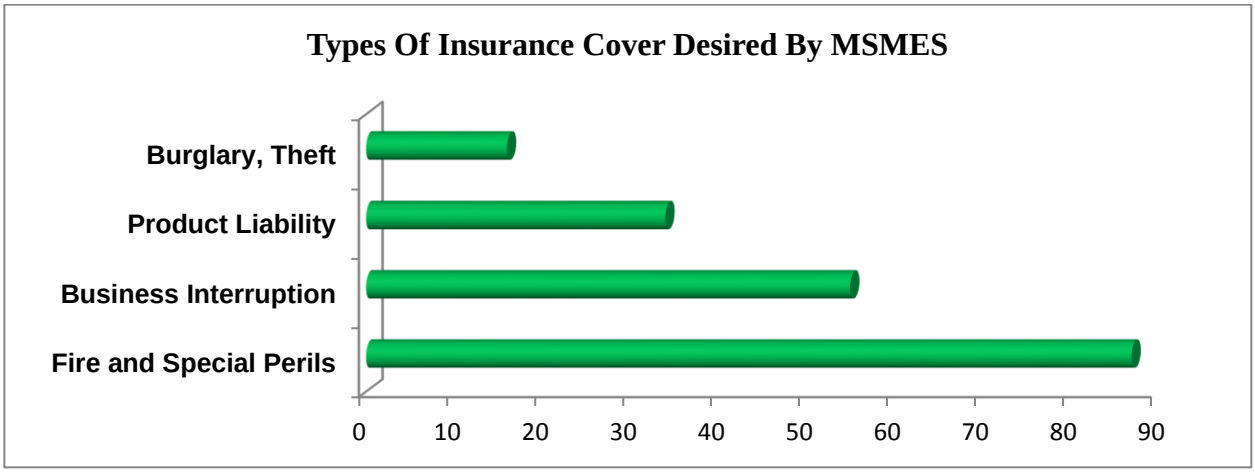
Source: Online Survey, 2021
Figure 6. Hindrances to Insurance Uptake among MSMEs



Source: Online Survey, 2021
Figure 7. Willingness of MSMEs to take Insurance Cover to Mitigate Future Risk

In figure 6, 61 percent of the operators do not think they need insurance coverage hence no uptake of insurance. This might be attributed to the level of their understanding of the benefits of insurance, the knowledge of products available and their access to insurance workers for better education. Also, 11 percent and 16 percent of them complained that the high premium and unimpressive attitude of insurance companies discouraged them from demanding for insurance cover. Therefore, the marketing strategies and attitude of insurance organizations need to be improved upon for increased uptake thereby yielding a win-win satisfaction.

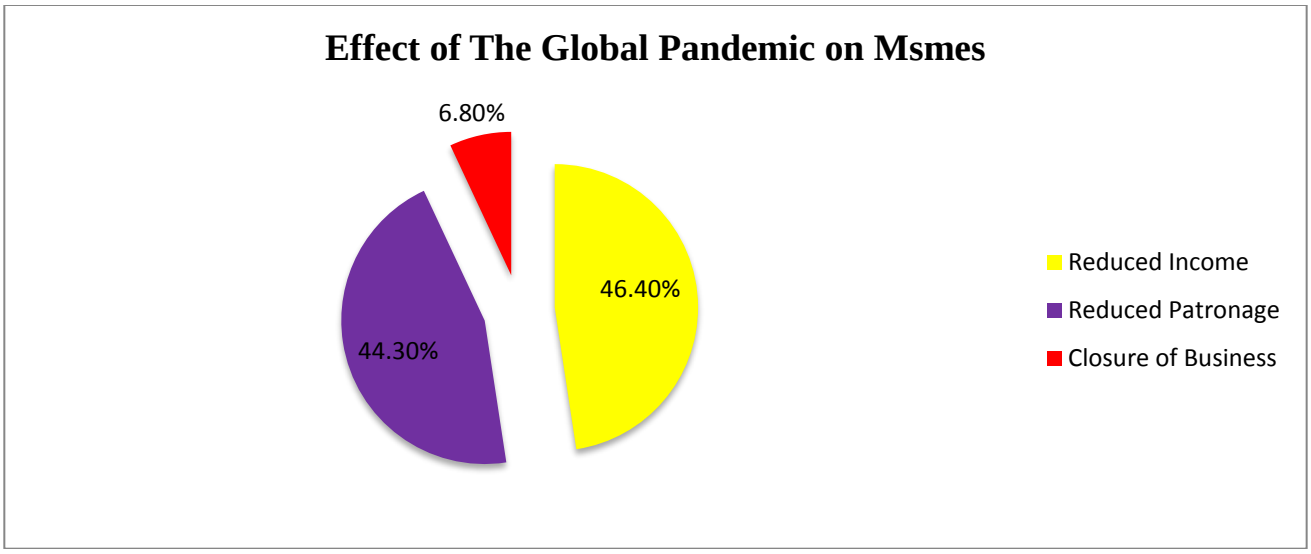
Figure 7 showed that 69 percent were willing to take insurance cover to mitigate future risks while 31 percent had no plan to obtain insurance even in the future. This might be attributed to the low level of awareness and education of the benefits of insurance especially in the present post-pandemic, new-normal era.



Source: Online Survey, 2021

Figure 8. Types of Insurance Cover Desired by MSMEs

From figure 8, 45.3 percent of the MSME operators showed more interest in Fire and Special Perils Insurance Product than any other available product. Worthy of note however is the fact that about 28 percent are interested in Business Interruption Insurance Product which reflects the proactive nature of such operators to doing business in this new normal era.



Source: Online Survey, 2021

Figure 9. Effects of the Global Pandemic on MSMEs

The result with respect to the effect of the global pandemic in figure 9 showed that most of the MSME operators (90.7 percent) had reduced income and patronage and 6.8 percent of the operators were severely affected and had to close down their business enterprise. This implies that most of the MSMEs operators in South-West Nigeria were exposed to greater risks thus an urgent need of insurance cover to guide against future occurrences.

3.3 Relationship Between The Global Pandemic And Specific Insurance Uptake Indicators

Table 2 presents a correlation analysis of those that were affected and specific variables such as uptake of insurance covers, MSMEs willingness to insure, MSMEs' level of awareness about insurance and MSMEs' productivity. Only, MSMEs' level of awareness about insurance was positively correlated at less than 1 per cent level of significance with the whether or not the MSME was affected by the global pandemic using both Pearson's correlation coefficient and the Cramer's V coefficient. However, the MSMEs' level of productivity also shows a significant positive correlation using the Pearson's correlation coefficient. These results imply that a strong correlation abound among MSME's who were affected by the global pandemic and their level of awareness about Insurance as well as their productivity. This means that MSMEs' who were adversely affected by the pandemic now know the effect of insurance and as such have become more aware. However, this awareness has not translated into full uptake of insurance. Also, the result shows that the uptake of insurance among MSMEs using the Cramer's V coefficient is strongly correlated.

Table 2. Relationship of the Global Pandemic with Specific Indicators

S/N	Indicators	Pearson Correlation Coefficient (r)	Cramer's V Coefficient
1	Affected by the pandemic and the uptake of Insurance among MSMEs	0.114	0.112
2	Affected by the pandemic and MSMEs' willingness to Insure	0.110	-0.105
3	Affected by the Pandemic and MSMEs' level of awareness about Insurance	0.396***	0.396***
4	Affected by the Pandemic and MSMEs' level of production income	0.413***	0.048
5	Uptake of insurance among MSMEs and the level of production income	-0.112	0.723***

Source: Online Survey, 2021

3.4 Effect of The Global Pandemic On Insurance Uptake Among Msmes in Urban South-West Nigeria

The effect of the global COVID-19 pandemic on insurance uptake among MSMEs was assessed using the Logistic model. The dependent variable is whether or not MSMEs have insurance cover. The result of the analysis is presented in table 3. The result in the table shows that the estimated model has explanatory power as shown by the likelihood ratio which was significant at the 1% level. The result also shows that five (5) out of the eight (8) variables included in the model were statistically significant (positive and negative) to MSMEs uptake of insurance cover.

Table 3. Effect of the Global Pandemic on Insurance Uptake among MSMEs in Urban Southwest Nigeria

Variables	Odd-Ratio	Coefficient	Standard Error
Gender (Male=1)	2.85	1.05**	0.4752
Age (years)	1.04	0.04	0.0381
Nature of MSME	0.56	-0.58*	0.3074
Business Experience (years)	0.97	-0.03	0.0423
Cooperative Membership (Yes=1)	12.71	2.54***	0.5620
Access to Credit (Yes=1)	1.26	0.23	0.4864
High Cost of Premium	5.20	-1.65***	0.5000
Affected by COVID-19 Pandemic	29.71	3.39***	0.6750
Constant	0.01	-5.40	1.7050
Log-likelihood	-65.1755		
LR (Chi^2)	-135.73***		

Source: Online Survey, 2021

The variables that positively influenced MSMEs' uptake of insurance cover were the gender of MSME Operator, membership of cooperative societies and whether the business was affected by the pandemic or not while those that negatively influenced MSMEs' uptake insurance cover were the nature of MSME and high cost of premium.

The positive coefficient of gender implies that the male MSME Operators have a higher likelihood of taking insurance cover than female MSME operators. Also, MSME Operators who are members of cooperative societies have a higher likelihood of taking insurance covers than those who are not. This can be attributed to the fact that for most cooperative societies to have access to credit facilities especially from the government, they have to get their businesses insured. Also, cooperative societies have proved to be one of the avenues for promoting awareness and knowledge on the importance of insurance uptake. This is consistent with the findings of Rejda, 2012; Banerjee et al, 2014 and Dayour et al 2020 where it was concluded that benefits such as easy access to loans, enhancing business image, and helping with a quick revamping of businesses after eventualities (which are all characteristics of cooperative societies) can improve uptake of insurance covers among MSMEs.

A business that was negatively affected by the pandemic has a first-hand experience of the impact and thus does not need to be told before they take insurance cover to mitigate future risk. This goes further to buttress the popular adage that says *"experience is the best teacher"*. However, it is important to stress the fact that proactive business operators do not need to wait until they become negatively affected before they take insurance cover.

The negative and significant coefficient of the nature of MSME and high cost of premium implies that MSME Operators that are into production and those that are into value addition are more likely to take insurance cover than those that render services. This can be attributed to the fact that production and value addition tend to pose more risk than those that render services thus the need to take insurance cover to mitigate these risks. For high cost of premium, the likelihood to take insurance cover reduces as the cost of premium increases. For insurance cover to be attractive unto MSME operators, the cost should be affordable, payment plan more flexible than what is currently obtainable in the country. When this is put in place, then more MSME operators will most likely take insurance cover. This result is in consonance with the findings of Chisala and Musawa, (2018) for the cost of premium.

3.5 Constraints Faced by The MSME Operators Based on Severity

A lot of constraints were encountered by the MSMEs operators which affected their uptake of insurance products. Some of the constraints were identified from literature review and then proposed to the MSMEs operators to indicate the level of severity. To complement these, the MSME operators were also asked to state other constraints they encountered and their responses were also analyzed and discussed in this section. The result of the analysis is presented in Table 4.

Table 4. Constraints faced by the MSMEs Operators Based on Severity

Constraints	Frequency	%	Rank
Inadequate Access to Credit Facility	62	32.3	1st
Insufficient Income	46	24.0	2nd
Low Perceived Risk	37	19.3	3rd
Inadequate Asset Capital	31	16.1	4th
Unavailability of Desired Product	10	5.2	5th
Misunderstanding of the Concept of Insurance Contract	6	3.1	6th
Total	192	100	

According to the table 4, misunderstanding of the concept of insurance was the 6th constraint based on severity; this means it is not a major constraint faced by the MSMEs. This is a pointer to the fact that majority of the MSMEs respondents were educated and aware of the Concept of Insurance.

Unavailability of Desired Product was the 5th most severe constraint mentioned. This could be as a result of the fact that majority of the operators have not been introduced to new products that might suite and meet their needs.

Also low insurance officers' visit was reported by the MSMEs, this implies inadequate information on recent insurance cover in the study area. MSME also reported the way they Perceived Risks (3rd) as a major constraint. The reason for this can be attributed to the fact that there is still low level of awareness on the benefits, opportunities and solutions derived from obtaining Insurance.

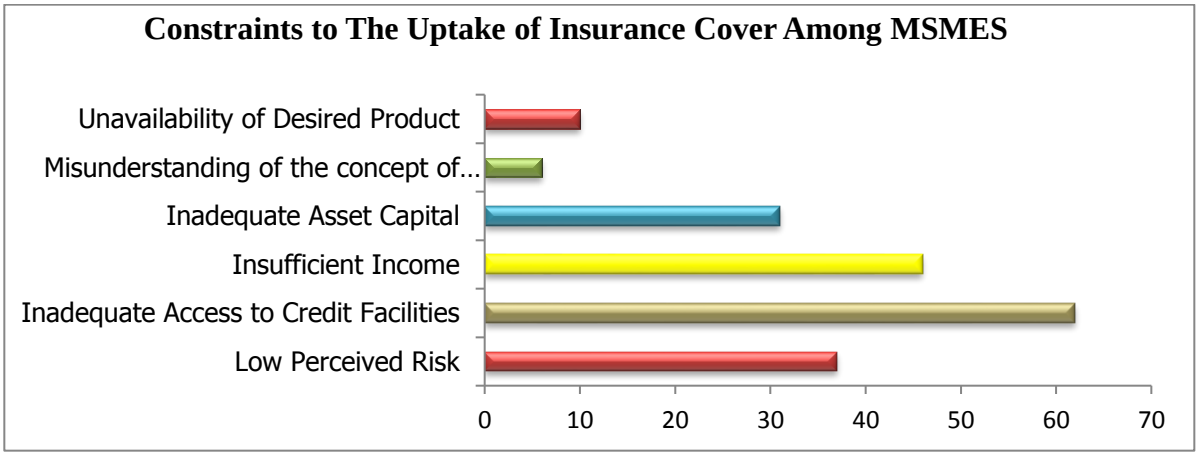
The 2nd most severe constraint according to the table was Insufficient Income. The economic situation of the country is alarming and most of the operators do not derive financial satisfaction from their business enterprise especially due to the disruption of business activities during the lockdown period due to the COVID 19 pandemic.

The most severe constraint (1st based on ranking) faced by the MSMEs in South-West Region of Nigeria is inadequate access to credit facilities. This could be as a result of the fact that majority of the MSMEs operators do not belong to any form of cooperative association where they could have access to credit facilities. This is corroborated

by the result of the socioeconomic characteristics in this study in which 72.9 percent of the operators had no membership of any form in any cooperative association and 40.6 percent had no access to credit. Consequently, access to credit is a major limiting factor for the uptake of insurance products and services for MSMEs in South West, Nigeria. These constraints are also presented in figure 10.

3.6 Impact of The Pandemic On MSMES' Level of Production, Willingness to Buy Insurance Cover and The Level of Uptake of Insurance Cover

Table 5 shows the estimates of the impact of the global pandemic on the MSMEs' level of production income, their willingness to buy insurance cover and the actual uptake of insurance cover using the Average Treatment Effect on the Treated (ATT). From table 5, it can be deduced that the nearest neighbor and the propensity score matching methods of the treated was 60 while that of the control was more than the treated at 132. Table 5 further shows that the Average Treatment on the Treated (ATT) both significantly impacted the level of MSMEs' production income for the two matching method used while it only significantly impacted the MSMEs' willingness to buy insurance cover using the nearest neighbor matching method. The results therefore imply that the global pandemic reduced the level of production by as much as N84,642.86 (for the propensity score matching method) and N72,464.29 (for the nearest neighbor matching method). It is important to highlight the fact that given the result of the analysis, the effect of the pandemic has not translated into the uptake of insurance cover yet among MSMEs' however; it significantly impacted the farmers' willingness to take insurance cover.



Source: Online Survey, 2021.

Figure 10. Constraints to the uptake of Insurance Cover among MSMEs

Table 5: Impact of the Pandemic on MSMEs' Level of Production, Willingness to buy Insurance Cover and the Level of Uptake of Insurance Cover

Matching Method	Treated	Control	Production Income		Willingness to buy Insurance Cover		Uptake of Insurance Cover	
			ATET	z- value	ATET	z- value	ATET	z- value
Nearest Neighbor	60	132	-72464.29	-5.25***	0.25	2.98***	-0.21	-1.14
Propensity Score	60	132	-84,642.86	-3.43***	0.01	0.06	-0.12	-1.04
Balancing Test Satisfied	Yes	Yes						
Common Support Imposed	Yes	Yes						
MSMEs' on-support	41	98						
MSMEs' off-support	19	34						

Source: Online Survey Data, 2021

4. Conclusion and Recommendation

The study has shown that in as much as the global Covid-19 pandemic had a negative impact on the production income of MSMEs', it has also revealed the fact that the pandemic has created an avenue to show in practical terms the essence of insurance services. The study also showed that factors such as gender of MSME operators, the nature of MSMEs, membership of cooperative societies, cost of premium, as well as whether or not the business was affected by the pandemic significantly influence the likelihood of MSMEs' taking insurance cover of any form. From the analysis of the study, given the results of the treatment effect models, it also became evident while the global pandemic has increased MSMEs' willingness to take insurance, it hasn't translated into real uptake of insurance covers yet. This was greatly attributed to inadequate access to credit facilities, unavailability of desired product and high cost of premium.

In line with the findings of this study, the following recommendations are outlined to improve MSMEs' uptake of insurance covers.

i. There is the need for massive and continuous awareness campaign particularly in market centres to boost the understanding and confidence of the masses on the nature and concept of insurance. This will help erode the current mind-set most people have about insurance generally

ii. Development of customised insurance products for the MSMEs to meet their specific need.

iii. Also, flexible payment platforms can be put in place so as to cater for those business operators that cannot afford the payment of their full premium at once.

All these will improve the level of understanding about insurance among MSMEs which will eventually result in actual uptake of insurance cover. This increased uptake will boost the confidence of the MSME operators in venturing into other businesses with the knowledge that in the event of any insured adverse situation, they will not be worse-off.

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