Journal of Agricultural Economics & Development

Homepage: https://jead.um.ac.ir

Full Research Paper
Vol. 37, No. 2, Summer 2023, p. 119-130

Agricultural Insurance and Sustainable Food Supply Systems: An Assessment for Nigerian Farmers

S.S. Ajemunigbohun[1*], I. Abdul-Azeez[2]

Received: 19-09-2022	How to cite this article:
Revised: 01-03-2023	Ajemunigbohun, S.S., & Abdul-Azeez, I.F. (2023). Agricultural insurance
Accepted: 06-06-2023	and sustainable food supply systems: an assessment for Nigerian farmers.
Available Online: 06-06-2023	*Journal of Agricultural Economics & Development*, *37*(2): 119-130.
	https://doi.org/10.22067/jead.2023.78280.1159

Abstract

Agriculture plays a pivotal role in Africa's development and is essential for achieving the Sustainable Development Goals (SDGs). However, the agricultural sector is inherently exposed to production risks, and many farmers in the developing world lack access to reliable agricultural insurance coverage. This situation arises due to limited data and knowledge about farmers' insurance needs and the high costs associated with insuring against severe agricultural risks. Promoting agricultural insurance as an instrument can have several significant impacts, aligning with multiple SDGs. It can help stabilize farmers' income, thereby contributing to the goal of reducing poverty (SDG 1). Moreover, agricultural insurance can provide a safety net for food producers, helping them manage the impacts of climate-related risks and aligning with SDG 13, which addresses climate action. Additionally, by enhancing the resilience of farmers and ensuring more predictable income, agricultural insurance can contribute to addressing hunger (SDG 2) and ultimately create a more sustainable and prosperous agricultural sector in Africa. Therefore, this study evaluated agricultural insurance as an instrument for sustainable food supply systems in Nigeria. This study adopted a survey design. This study captured thoughts, experiences, and observations of selected agricultural underwriters in the Nigerian insurance industry through structured questionnaire. A descriptive statistic was employed in the data analysis. This study results indicated that aside from farmers' awareness which showed some level of yardstick with respect to farmers behavioural metrics, all other metrics played no significant roles. It was also recorded that why farmers' age, gender, family size and farming experience have no significant roles in the uptake of agricultural insurance, all other participatory factors have major effects. The study contributed significantly to knowledge with the graphical representations of the challenges confronting the agricultural insurers in Nigeria. The study provided suitable recommendations that endear achievable SDGs in Nigeria.

Keywords: Agricultural insurance, Agricultural risk, Nigeria, Sustainable food systems

Introduction

Agricultural production had grown and tripled between the years 1960 and 2015, due to the adoption of green revolution technologies coupled with significant expansion in the use of water, land, and other natural resources for agricultural uses. Studies have affirmed the continued and widespread food deficiency and malnutrition as major challenges in many areas of the globe (FAO, 2017; OECD/FAO, 2021; Olajide-Adedamola and Akinbilo, 2018). Oyetunde, Odum, and Adewunmi (2021) stipulated that the developmental stride put forward to eradicate hunger and food deficiency will not be sufficient even by the year 2050 if adequate efforts are not in place. According to Alliance for a Green Revolution in Africa (AGRA) (2018), 70% of the African populace

1- Department of Insurance, Faculty of Management Sciences, Lagos State University, Ojo, Nigeria
(Corresponding Author Email: sunday.ajemunigbohun@lasu.edu.ng)

2- School of Transport and Logistics, Lagos State University, Ojo, Lagos, Nigeria
DOI: 10.22067/jead.2023.78280.1159

has been said to be involved in agriculture. It is a proven fact, from this submission, that agriculture is the path to prosperity in Africa because no region of the world has developed into a diverse modern economy without first establishing a successful foundation in agriculture. However, Agriculture is critical to the development of Africa and crucial to the achievement of the Sustainable Development Goal, which seeks to eradicate extreme poverty and hunger by 2030. Over 70% of Africa's population depends on agriculture (International Fertilizer Development Centre, 2014).

In Nigeria, the focus had been on diversifying the economy away from oil to agriculture. Towards meeting this goal, various government programmes to support rice farmers, and other categories of farmers had been put in place. This agricultural drive is in tandem with successive government efforts at achieving sustainable food security and self-sufficiency in food production. All of these had been directed at reawakening the past landmark achievement recorded over the years in the agricultural sector which is regarded as the mainstay of the economy. Nigeria is a vast agricultural country endowed with substantial natural resources. According to Oyakhilomen and Zibah (2017), the agricultural sector is said to account for over 40% of the GDP and thus, employs about 60% of the working population. Over 53 million (about 30 per cent) Nigerians remain undernourished, and many Nigerians (65 per cent) remain food insecure (Nwankpa, 2017). Hence, prioritising agriculture and intensifying efforts on agricultural production will serve as a veritable instrument that potentially endears to sustainable capacity in food production and supply (Akpan, Udoka, and Patrick, 2021; Amao, Antwi, Oduniyi, Oni, and Rubhara, 2021).

Given the current economic situation in Nigeria coupled with hyperinflation and hunger in the land, the government is putting more effort into revamping the agricultural sector with the desire to not only boost the sector but restore the lost glory of Nigeria in self-sufficiency in food production and supply. These efforts were geared toward encouraging more people into agricultural (either as an investor or a farmer) to reduce the alarming rate of unemployment and enhance the economic diversification policy of the government. This desire had made it imperative that proven scientific and appropriate economic means for managing the various risks that are associated with agricultural endeavours are brought to the fore.

Therefore, it is important to acknowledge the role of agricultural insurance in realising these government objectives (advancement of agricultural sector, provision of agricultural inputs, etc.) and protecting farmers against possible agricultural risks (such as production risks, environmental risks, logistics and infrastructural risks). Agricultural risk is a central theme in farming globally due to the threats of pests and diseases, bush fires, herders' activities, drought, and price fluctuations. In Nigeria, farmers have been disturbed by the activities of herders, bandits, kidnappers, and political unrest, among others. But a great majority of them, due to insufficient means and resources, are rarely able to withstand the risks, especially when it involves disastrous losses. The result, often, is a serious decline in farm income and the consequent failure (Udemezue and Kanu, 2019). Thus, this underscores the need for this research to assess how agricultural insurance can be used as an instrument for sustainable food supply systems in Nigeria. In specific terms, the objectives are to:

i. Take an overview of agricultural insurance and identify the demand-and supply-sides factors affecting the uptake of agricultural insurance;
ii. Study the existing farmers' behavioural metrics toward agricultural insurance based on the judgment of Agricultural insurance providers;
iii. Assess the possible factors influencing farmers' participations in agricultural insurance in Nigeria;
iv. Examine the various challenges confronting Agricultural insurers in Nigeria

Overview of Agricultural Insurance: Global perspective

Agricultural sector is the most pertinent facet in many countries which is still being impacted by climate shock. Apart from threatening global food security and stability, these shocks can cripple livelihoods, disrupt agricultural value chains, and even subvert macroeconomic stability. Agricultural insurance de-risks lending to the agricultural sector, enabling loan repayments, curtails budget volatility of agriculture-related financial expenditures by ceding climate risk to the private sector, increases financial space during shock years, and estimates growth of the agricultural sector, which can unlock job creation opportunities (Baskaran and Maher, 2021).

Agricultural insurance is an increasingly attractive sector that is experiencing rapid growth. In the year 2019, the agricultural insurance market was valued at over 30 billion U.S. dollars (Wang, Tack, and Coble, 2020; Vyas, Dalhaus, Kropff, Aggarwal, and Meuwissen, 2021). However, climate change, in many regions of the world, has been ascribed an essential driver of agricultural system instability and is anticipated to increase the probability and severity of risks. Therefore, among numerous agricultural risk management instruments available, one major plan of action to manage these risks is agricultural insurance (Vyas *et al*., 2021). Agricultural insurance, according to Siwedza and Shava (2020), can help stabilise farm income by reducing poverty (Sustainable Development Goals. SDG 1), ensuring a climate safety cover for food producers (SDG 13), and creating more welfare packages to address hunger (SDG 2).

Agricultural insurance is a financial instrument which provides coverage for agricultural production assets of all biological systems including crop, forestry, livestock, fishing, and farm properties. Agricultural insurance is one of the alternative risk management methods available for risk management against climatic variations. It serves as the only medium through which production risks in agriculture are ceded from individual producers, agro-enterprises, and government organisations to (re) insurers or other financial markets (Hohl, 2019).

The evidence above shows that insurance product (especially agricultural insurance) in developing countries is grappling with the provision of safety cover for a range of shocks and challenges which are beyond the farmers' control and can impact drastically on their incomes and survival. It can be deduced from the figure above that while 22 percent of farmers are figured to have knowledge of agricultural insurance in Asia, 33 percent in Latin America, only 3 per cent of these farmers, globally, are figured to be aware of agricultural insurance in Sub-Saharan Africa. Studies (such as Panda, 2021; Yonekura, 2019) had proved that agricultural insurance in the Asian region is bolstered primarily by the republic of China, Japan, and India. More so, studies (such as Ntukamazina, Onwonga, Sommer, Rubyogo, Mukankusi, Mburu, and Kariuki, 2017; Osumba, Recha, Demissie, Shilomboleni, Rademy, and Solomon, 2020) had stipulated that agricultural insurance penetration is very low in most African countries by either not having it or experiencing it only at the pilot stage.

Agricultural insurance in Nigeria

The drive for agricultural insurance in Nigeria was said to have started with the establishment of the Nigerian Agricultural Insurance Scheme (NAIS). The essence of its emergence was to provide financial remediation to farmers having suffered natural hazard; stimulate financial institutions, provide rural credit; promote agricultural production by motivating investment; and reducing the need for government to offer support after a disastrous events.to be able to attain these objectives, the Federal Government of Nigeria (FGN) considered it necessary to establish the Nigerian Agricultural Insurance Corporation (NAIC).

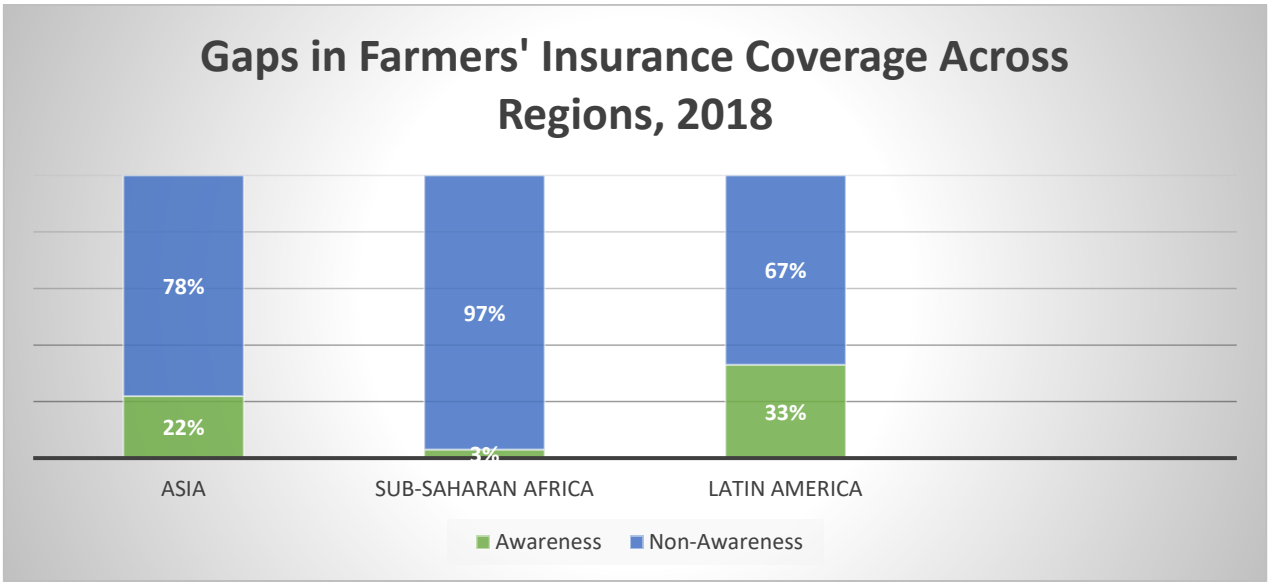

Figure 1- Gaps in farmers' income coverage across region, 2018
Source: ISF Advisors (2018). Protecting growing prosperity

The NAIC (Nigerian Agricultural Insurance Corporation), once established, has taken on the crucial responsibility of protecting Nigerian farmers against the potential impacts of natural hazards. It achieves this by implementing measures that ensure prompt and appropriate compensation, sufficient to help affected farmers recover and continue their agricultural activities despite suffering losses (Olajide-Adedamola and Akinile, 2018). Government continuous participation ensures subsidies' provisions for food crops, cereals, live stocks, poultry, and fisheries without commercialisation. NAIC, being the only corporation that represents government's interest in agricultural insurance, is empowered to perform such responsibilities as stated above (Oyetunde *et al.*, 2021). Currently, the agricultural insurance market is comprised of one (1) government fully funded corporation (NAIC) and eighteen (18) private agricultural underwriters. The products presently being offered in the market include poultry insurance, fish farming insurance, livestock insurance, multicrop peril insurance, crop insurance, and farm properties, and produce insurance.

Demand- and Supply-Side Barriers to the uptake of Agricultural Insurance

Evidence has demonstrated that the insurance coverage gap persists due to a combination of demand-side and supply-side factors. On the demand side, one significant challenge is the lack of awareness about insurance services, primarily driven by the limited access to financial services in rural areas. This lack of access serves as a fundamental barrier to the adoption of insurance. Even in cases where farmers are aware of insurance, insufficient knowledge and understanding of this financial instrument can lead to distrust in service providers' abilities to honor claims as promised.

Additionally, for those farmers who are aware of insurance services, effective utilization of agricultural insurance becomes feasible when they possess a clear understanding of how it works and the value it can provide to them. However, uptake of agricultural insurance among farmers is being constrained by two likely costs, namely cost of insurance premium and claim costs.

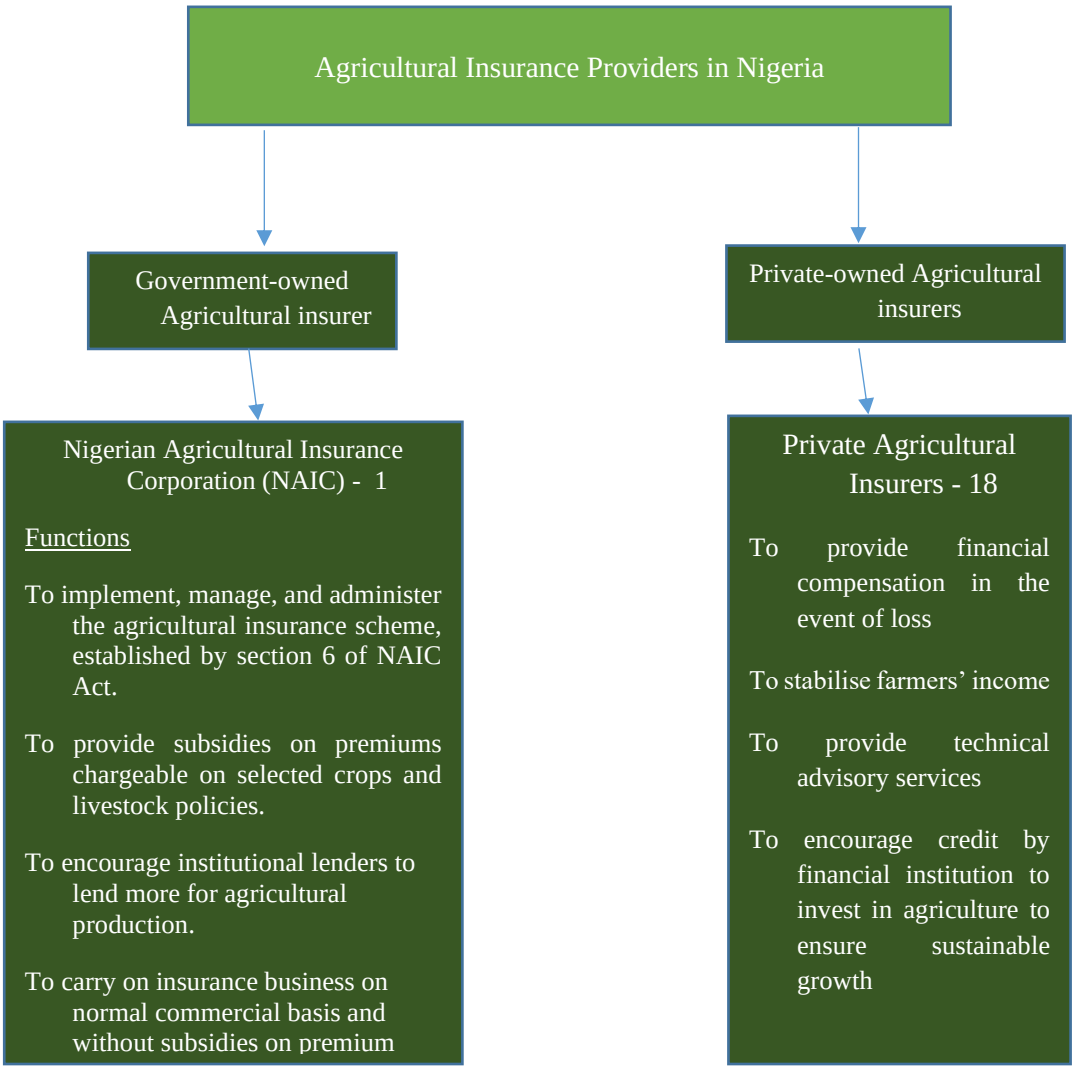

Figure 2- Structure of Agricultural Insurance Market in Nigeria

Source: Researchers' model, 2022

Apparently, government subsidy, as a demand factor, has been employed to reduce premiums for farmers on government-mandated schemes or specific agricultural insurance services. These claims are also supported by recent studies (Ghosh, Gupta, Singh, and Ward, 2021; Nshakira-Rukundo, Kamau, and Baumuller, 2021; Sujarwo, 2017). On the supply-side factors, an agricultural insurance provider encounters high incidence of disastrous events such as drought, flood, etc.., with core requirements of huge and more persistent pay-outs. In addition, providing coverage for such agricultural risks can be expensive for providers who would scuffle to design agricultural insurance policies that are both low-priced and offer ample coverage. Distribution is key challenge, hence reaching and serving farmers can be logistically laborious and high-priced. Given the sensitivity of the price, insurance underwriter most times perceived this policy as a low-profit customer aspect, preventing themselves from offering the policy. However, with no access to formal insurance schemes (especially government support/subsidies), farmers usually resort to traditional risk management, such as self-insurance and community fund. While self-insurance can be expensive and profitless against major weather shocks, community

funding schemes, in which farmers contribute their savings into a pool to support those who require pecuniary assistance, may not usually provide sufficient safety cover (Raithattha and Priebe, 2020; Stoppa and Dick, 2018). The main problem is that traditional risk management schemes are not able to cater for covariate risks, which refer to disastrous situations that affect many farmers in the same region at the same period.

Research Methods

This study, which is empirical, analytical, and descriptive, captures the thoughts of agricultural insurance providers on issues relating to farmers' behavioural metrics, factors influencing farmers' participation in agricultural Insurance, and challenges of agricultural Insurers. This study adopted survey design supported by quantitative method to provide an improved perception of necessary resolutions for agricultural insurance as an instrument to food supply systems in Nigeria. The total population comprised 19 registered and practising agricultural insurance companies in Nigeria (Nigerian Insurance Association, 2020).

The sampling method adopted were purposive and convenience in nature. The data collection instrument selected for this study was a questionnaire, being a primary source method. The choice of the survey method was due to its suitability to the chosen research design, its costless nature, huge sample coverage, and its simplicity in distribution (Sallies, Gripsrud, Olsson, and Silkoset, 2021). Five copies of questionnaires were sent to each provider with each company's unit head inclusive via the researcher's institutional email. To this end, a total of 87 copies were returned, making a 92% response rate.

The study measurement of validity consisted of construct, and face validity. While construct validity was structured in line with convergent and discriminant views of earlier studies, face validity was conducted among experts in agricultural insurance to be able to come up with useful research instrument for the data collection. Also, the reliability test was conducted with a Cronbach alpha above the standard 0.7 for all constructs of concern. These outcomes were in line with statistical inferences of the validity of the scale, and the sacrosanctity of the internal consistency.

Results and Discussion

Fig. 3 shows farmers' behavioural metrics in terms of their awareness, patronage, attitudes, preferences, and experiences. For the statement that "farmers' awareness has contributed greatly to agricultural insurance policies in Nigeria", while 45.5 percent disagreed with it, 4.5 percent undecided, 22.7 percent expressed their agreement, and 27.3 percent were strongly in agreement with the statement. This implies that while 50 percent agreed with the statement, 45.5 percent disagreed. For the statement that "farmers' patronage for agricultural insurance in Nigeria is high", while 9.1 percent only expressed strong disagreement, 27.3 percent were undecided, and 63.6 percent indicated their agreement. This implies that while only 9.1 percent expressed their indecision, 90.9 percent were in disagreement with the statement. For the statement that "farmers have positive attitudes to purchasing agricultural insurance", while 9.1 percent signify their strong disagreement, 68.6 disagreed, 9.1 percent undecided, and 13.6 percent displayed their agreement. It shows that more than 70 percent disagreed with the statement. For the statement that "farmers' preferences for agricultural insurance policies had been huge", while 77.3 percent disagreed with the statement, 9.1 percent expressed their indecision, and 13.6 percent displayed their agreement.

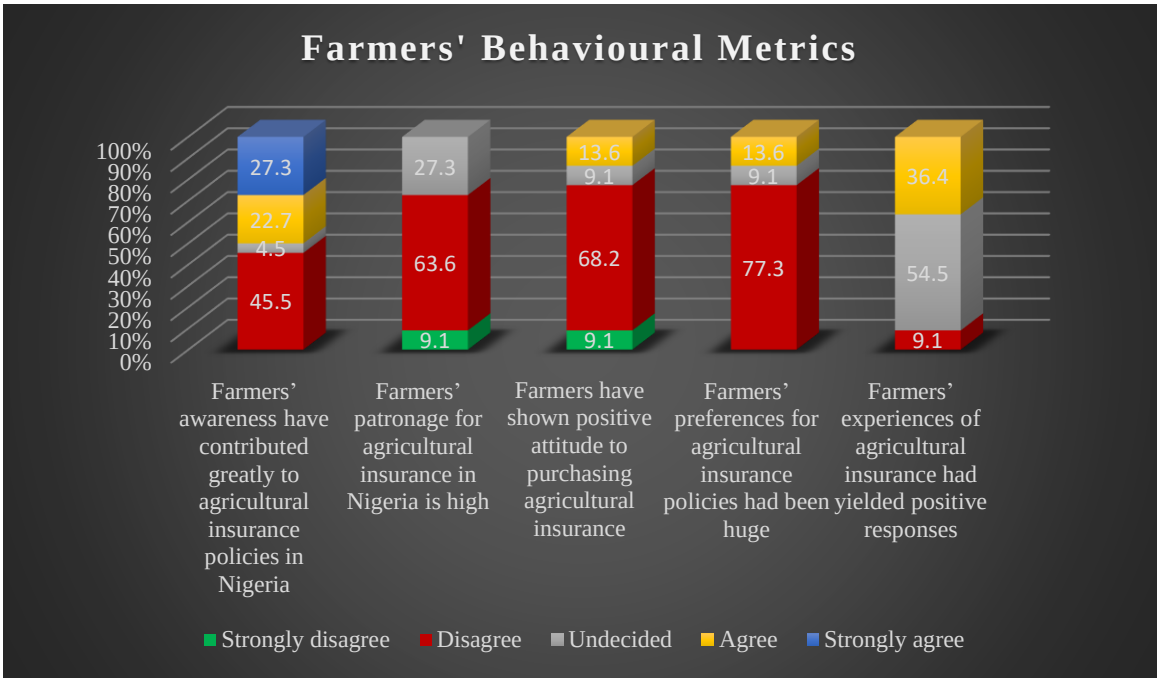

Figure 3- The graphical model explains Farmers' behavioural metrics for agricultural insurance
Source: Field Survey, 2022

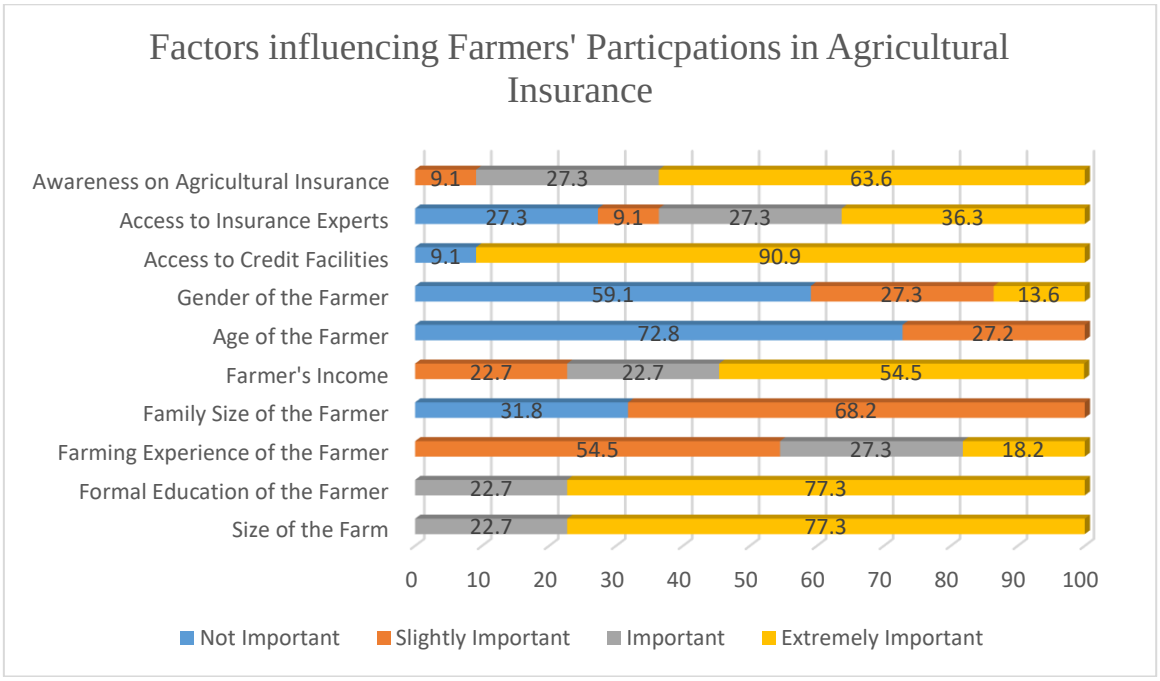

Figure 4- The graphical model explains factors influencing farmers' participations in agricultural insurance in Nigeria
Source: Field Survey, 2022

It also implied that over 70 percent disagreed with the statement. For the statement that "farmers' experiences of agricultural insurance had yielded positive responses", while 54.5 percent expressed their indecision, 36.4 percent agreed, and 9.1 percent disagreed. The reason

for the results is that while farmers desire towards agricultural insurance, on the judgment of the agricultural underwriters, have been negatively affected in terms of their patronage, attitudes, experiences, and preferences; more positive outcomes are recorded with respect to their level of awareness.

Fig. 4 shows the participants' responses regarding factors influencing farmers' participations in agricultural insurance. For size of the farm, while 77.3 percent of participants see it as extremely important, 22.7 percent attached some level of importance. For 'farmer's formal education', 77.3 percent account for extremely important and 22.7 percent important. For 'farmer's farming experience', while 54.5 percent of the entire agricultural underwriters see it as slightly important, 27.3 and 18.2 percent account for some level of importance and extreme importance respectively. For 'family size of the farmer', while 68.2 percent of the entire participants see it as slightly important, 31.8 percent attached no importance. For 'farmer's income', while 54.5 percent of the entire participants see it as extremely important, 22.7 percent account each for both its importance and slight importance. For 'age of the farmer', while 72.8 percent of the entire participants see it as not important, 27.2 percent attached slight importance. For 'gender of the farmer', 59.1 percent of the entire participants see it as not important. While 27.3 percent account for its slight importance, 13.6 percent saw it as extremely important. For 'access to credit facilities', 90.9 percent of the entire participants see it as extremely important, while 9.1 percent account for its importance. For 'access to insurance expert', 36.3 percent of the entire participants see it as extremely important. While 27.3 percent each account for both not important and important, only 9.1 percent account for its slight importance. For 'awareness on agricultural insurance', 63.6 percent of the entire participants see it as extremely important. While 27.3 percent account for its importance, just 4.1 percent attached slight importance.

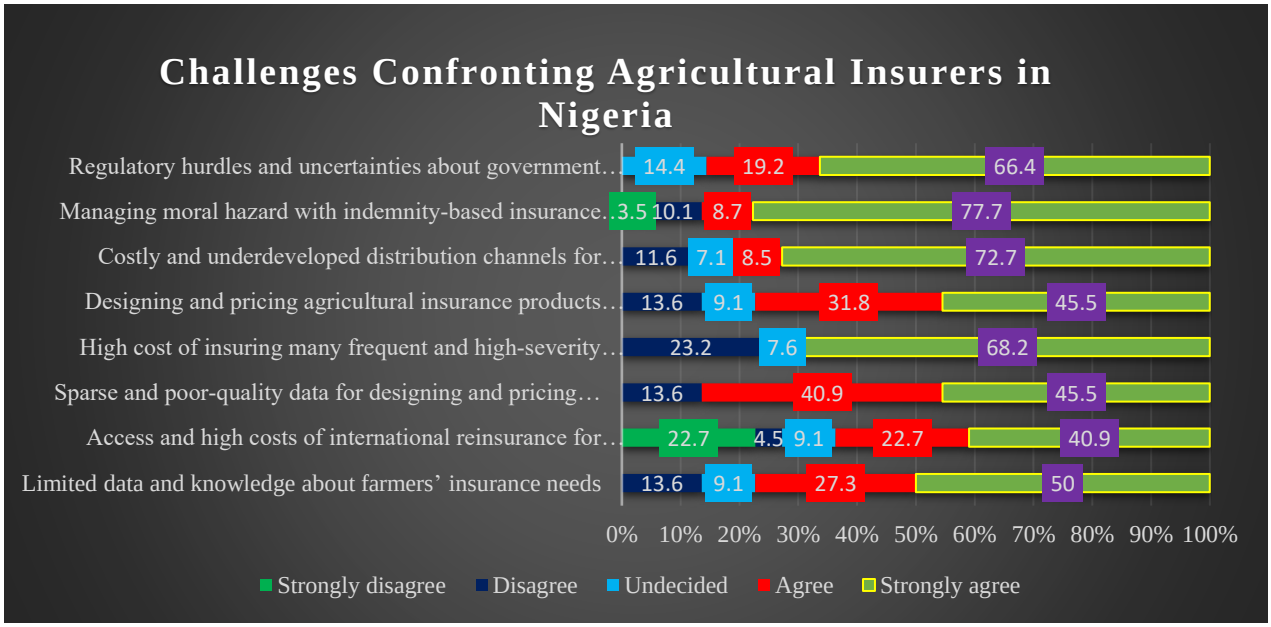

Figure 5- The graphical model explains challenges confronting agricultural insurers in Nigeria
Source: Field Survey, 2022

The adopted factors were in consistent with studies (such as Ajiboye, Adeyonu, Faseyi, and Isitor, 2018; Ankrah, Kwapong, Eghan, Adarkwah, and Boateng-Gyambiby, 2021; Carrer, Franco de Silveira, Vilholis, and De Souza Filho, 2019) regarding agricultural insurance.

Fig. 5 shows the participants' responses

about challenges encountered with providing agricultural insurance products in Nigeria. For Limited data and knowledge about farmers' insurance needs**,** while 50 percent of participants strongly agreed to the statement, 27.3 percent expressed their agreement, 13.6 percent disagreed and 9.1 percent were undecided. For 'access and high cost of international reinsurance for agricultural insurance' 40.9 percent account for strong agreement and 22.7 percent agreed. While 22.7 percent strongly disagreed expressed their strong disagreement, 9.1 percent undecided, and 4.5 percent of the participants all disagreed. For **'**sparse and poor-quality data for designing and pricing agricultural insurance', 45.5 percent of the entire participants expressed strong agreement, 40.9 percent showcased their agreement, while only 13.6 percent that showcased their disagreement. For 'high cost of insuring many frequent and high-severity agricultural risks', 68.2 percent of the entire participants agreed strongly with the statement. While 23.2 percent disagreed, 7.6 were indecisive. For designing and pricing agricultural insurance products given the uncertainties of climate change', 45.5 percent of the entire participants strongly agreed, 31.8 percent account for those that expressed their agreement. While 9.1 percent were indecisive, 13.6 percent were in disagreement with statement. For 'costly and undeveloped distribution channels for providing agricultural insurance on a large scale to small, disperse farmers', while 72.7 percent of the entire participants agreed strongly with the statement, 8.5 percent expressed their agreement, 11.6 percent disagreed, 7.1 were indecisive. For 'managing moral hazard with indemnity-based insurance and basis risk with index-based insurance for agricultural risks', while 77.7 percent showcased their strong acceptance, 8.7 expressed their agreement, 10.1 percent account for its disagreement, and 3.5 percent disagreed strongly. For 'regulatory hurdles and uncertainties about government policies that may affect the financial viability of private agricultural underwriters', while 66.4 percent of the entire participants indicated their strong agreement, 19.2 ordinarily agreed, and 14.4 percent account for its indecision. These challenges are in consistent with studies (such as Ehiogu and Chidiebere-Mark, 2019; Elum and Simonyan, 2016) concerning agricultural insurance.

Conclusion

The study focused on agricultural insurance as an instrument for food supply systems in Nigeria. Without doubt, agricultural risks (such as pests, diseases, droughts, fire, climate change, etc.) present serious challenges to the survival of individual farmers, income and economic of scale in developing countries. This study therefore described the behavioural metrics of farmers based on the judgment of agricultural underwriters, study existing factors influencing farmers' participations in agricultural insurance, and scrutinise the current challenges being faced by agricultural underwriters in Nigeria.

The study recommended that private agricultural underwriters should do more on its enlightenment to the farmers and also, design agricultural insurance products tailored towards agrarian farming needs at a given time. The National Insurance Commission should develop sustainable regulatory framework that can fascinate the agrarians in the Nigeria to purchase agricultural insurance policy, as both social and financial instrument. Conclusively, NAIC, as a government-owned agricultural insurance organisation, should provide more subsidies for farmers to motivate their patronage, positive attitude, preferences, and experiences.

References

1. Ajiboye, B.O., Adeyonu, A.G., Faseyi, S.A., & Isitor, S.U. (2018). Factors influencing farmers' choice of agricultural insurance on arable crop production in Kwara State, Nigeria. *Nigerian Journal of Agricultural Economics, 8*(1), 89-100.

2. Akpan, S.A., Udoka, S.J., & Patrick, I.V. (2021). Agricultural sub-sectors' output and economic growth in Nigeria: Implication for agricultural production intensification. *AKSU Journal of Agricultural and Food Sciences, 5*(1), 56-68.
3. Alliance for a Green Revolution in Africa (AGRA) (2018). *Africa agriculture status report: The business of smallholding agriculture in Sub-Sahara Africa,* Issue 5. Nairobi, Kenya.
4. Amao, O.D., Antwi, M.A., Oduniyi, O.S., Oni, T.O., & Rubhara, T.T. (2021). Performance of agricultural export products on economic growth in Nigeria. *Asian Journal of Agricultural and Rural Development, 11*(1), 47-52.
5. Ankrah, D.A., Kwapong, N.A., Eghan, D., Adarkwah, F., & Boateng-Gyambiby, D. (2021). Agricultural insurance access and acceptability: Examining the case of smallholder farmers in Ghana. *Agricultural and Food Security, 10*(19), 1-14.
6. Baskaran, G., & Maher, B. (2021). *Agricultural insurance: The antidote to many economic illnesses. Future Development*. Retrieved from https//www.brooksings.edu/blog/future-development/2021/05/26/agricultural-insurance-the-antidote-to-many-economic-illnesses/
7. Carrer, M.J., Franco de Silveira, R.L., Vilholis, M.B., & De Souza Filho, H.M. (2019). Determinants of agricultural insurance adoption: Evidence from farmers in the state of Sao Paulo, Brazil. *RAUSP, 55*(4), 547-566.
8. Ehiogu, C.P., & Chidiebere-Mark, M.N. (2019). Challenges and prospects of agricultural insurance market development in achieving sustainable development goals (SDG) 8 in Nigeria. *African Journal of Applied Research, 5*(2), 131-149.
9. Elum, Z.A., & Simonyan, J.B. (2016). Analysis of Nigerian insurers' participations of climate change. *South African Journal of Economics and Management, 19*(4), 549-561.
10. Food and Agricultural Organisation of the United Nations (2017). *The future of food and agriculture: trends and challenges*. Rome: FAO.
11. Ghosh, R.K., Gupta, S., Singh, V., & Ward, P.S. (2021). Demand for crop insurance in developing countries: New evidence from India. *Journal of Agricultural Economics, 72*(1), 293-320.
12. Hohl, R.M. (2019). *Agricultural risk transfer: From insurance to reinsurance to capital market.* West Sussex: John Wiley & Son Limited.
13. International Fertilizer Development Centre (2014). Climate change and agricultural development: Turning a problem into an opportunity. *IFDC Quarterly Magazine, 39*(3), 1-32.
14. Nigerian Insurers Association (2020). *Insurance digest 2020.* Lagos: Nigerian Insurers Association.
15. Nshakira-Rukundo, E., Kamau, J.W., & Baumuller, H. (2021). Determinants of uptake and strategies to improve agricultural insurance in Africa: A review. *Environment and Development Economics, 26*(5/6), 1-27.
16. Ntukamazina, N., Onwonga, R.N., Sommer, R., Rubyogo, J.C., Mukankusi, C.M., Mburu, J., & Kariuki, R. (2017). Index-based agricultural insurance products: Challenges, opportunities, and prospects for uptake in Sub-Sahara Africa. *Journal of Agriculture and Rural Development in the Tropic and Subtropics, 118*(2), 171-185.
17. Nwankpa, N.N. (2017). Sustainable agricultural development in Nigeria: A way out of hunger and poverty. *European Journal of Sustainable Development, 6*(4), 175-184.
18. OECD/FOA (2021). *OECD-FAO Agricultural outlook 2021-2030*. Paris: OECD Publishing
19. Olajide-Adedamola, F.O., & Akinbilo, L.A. (2018). Inhibitors and motivators of adoption of agricultural insurance in Nigeria. *International Journal of Agricultural Management and Development, 9*(3), 285-292.
20. Osumba, J., Recha, J. Demissie, T., Shilomboleni, H., Rademy, M., & Solomon, D. (2020). *State of index-based crop insurance services in East Africa: Findings from a scoping study to establish the state of index-based crop insurance services in Kenya, Tanzania, and Uganda. Climate*

Change, Agricultural, and Food Security, November, 1-4.
21. Oyakhilomen, O., & Zibah, R.G. (2017). Agricultural production and economic growth in Nigeria: Implication for rural poverty alleviation. *Quarterly Journal of International Agricultural*, *53*(3), 207-223.
22. Oyetunde, B.S, Odum, E.B.E., & Adewunmi, O.M. (2021). Production efficiencies of the Nigerian Agricultural Insurance Corporation (NAIC) insured and non-NAIC insured livestock farmers in Kwara State, Nigeria. *Turkish Journal of Agricultural–Food Science and Technology, 9*(1), 50-55. https://doi.org/10.24925/turjaf.v9i1.50-55.3684
23. Panda, A. (2021). *Climate change and agricultural insurance in Asia and pacific region.* Background Paper, Asian Development Bank, 1-44.
24. Raithatha, R., & Priebe, J. (2020). *Agricultural insurance for smallholder farmers: Digital innovations for scale*. UKAID: Walbrook: GSMA Agritech Programme.
25. Sallies, J.E., Gripsrud, G., Olsson, U.H., & Silkoset, R. (2021). *Research methods and data analysis for business decisions: A premier using SPSS.* Oslo: Springer.
26. Siwedza, S., & Sheva, S. (2020). *Insurance increasing natural disaster risks and the SDGs: A focus on Southern Africa scaling up SDGs implementation – Emerging cases from States, Developments, and Private Sectors.* Cham: Springer International Publishing.
27. Stoppa, A., & Dick, W. (2018). *Agricultural insurance in Burkina Faso: Challenges and perspectives*. Cowley: Oxfam International.
28. Sujarwo, S. (2017). Factors affecting farmers' acceptability towards agricultural insurance in Malang, East Java, Indonesia. *Agricultural Socio-Economics Journal, 17*(3), 97-104. http://dx.doi.org/10.17358/jma.15.2.143
29. Udemezue, J.C., & Kanu, N.A. (2019). Challenges of Nigerian agricultural sector in the twenty first century: The case of nomadic insurgence and terrorist sects. *Universal Journal of Agricultural Research, 7*(2), 117-124. https://doi.org/10.13189/ujar.2019.070204
30. Vyas, Dalhaus, T., Kropff, M., Aggarwal, P., & Menwissen, M.P.M. (2021). Mapping global research on agricultural insurance. *Environmental Research Letters, 16*, 1-19.
31. Wang, H.H., Tack, J.B., & Coble, K.H. (2020). Frontier studies in agricultural insurance. *Geneva Paper on Risk and Insurance – Issues and Practices, 45*, 1-4.
32. Yonekura, H. (2019). Implication of the agricultural mutual relief insurance scheme in Japan as for the development of agricultural insurance in Monsoon Asian Countries. *Journal of Farm Management Economics, 50*, 1-21.

Journal of Agricultural Economics & Development

https://jead.um.ac.ir

مقاله پژوهشی

جلد ۳۷ شماره ۲، تابستان ۱۴۰۲، ص. ۱۳۰-۱۱۹

بیمه کشاورزی و نظام‌های تامین غذای پایدار: ارزیابی کشاورزان نیجریایی

ساندی آجمانگهان[1*]- ابراهیم عبدالعزیز[2]

تاریخ دریافت: ۱۴۰۱/۰۶/۲۸

تاریخ بازنگری: ۱۴۰۱/۱۲/۱۰

تاریخ پذیرش: ۱۴۰۲/۰۳/۱۶

چکیده

بخش کشاورزی نقش مهمی در توسعه قاره آفریقا و دستیابی به اهداف توسعه پایدار (SDGs) دارد. با این حال، ریسک تولید در بخش کشاورزی فراگیر است، و همچنان، کشاورزان در سراسر کشورهای در حال توسعه، به دلیل محدودیت داده و دانش در مورد نیازهای بیمه‌ای کشاورزان و هزینه‌های گزاف بیمه برای پوشش ریسک‌های کشاورزی، به پوشش بیمه کشاورزی با کیفیت دسترسی ندارند. برای این منظور، بهبود بیمه کشاورزی، به عنوان یک ابزار، می‌تواند به ثبات درآمد کشاورزی و در نتیجه کاهش فقر، به عنوان هدف اول توسعه پایدار (SDG 1)، اطمینان از محیط مناسب برای تولید غذا (SDG 13)، و ایجاد یک بسته (حمایتی) با رفاه بیش‌تر برای رفع گرسنگی (SDG 2) کمک کند. بنابراین، این مطالعه به ارزیابی بیمه کشاورزی به عنوان یک ابزار برای نظام‌های تولید غذای پایدار در نیجریه می‌پردازد. این مطالعه یک نظرسنجی را در بر می‌گیرد و طی آن طرز نگرش، تجربه و مشاهدات پذیره‌نویسان منتخب کشاورزی در صنعت بیمه نیجریه را از طریق پرسشنامه ساختارمند گردآوری کرده است. برای این مطالعه از آمار توصیفی برای تحلیل داده‌ها استفاده شده است. نتایج مطالعه نشان داد که به غیر از آگاهی کشاورزان، که سطحی از معیارهای مرتبط با رفتار کشاورزان را نشان می‌دهد، سایر معیارها نقش مهمی نداشتند. این نتایج همچنین نشان داد که چرا سن، جنسیت، اندازه خانوار و تجربه کشاورزی نقش معناداری در دریافت بیمه کشاورزی نداشت. برای باقی مولفه‌های مشارکت کننده در این پژوهش تاثیر محوری دانسته شد. این مطالعه به ایجاد یک تصویر از چالش‌های پیش‌روی بیمه کشاورزی در نیجریه کمک کرد. نتایج این مطالعه می‌تواند در ارائه پیشنهادات مناسب برای دستیابی به اهداف توسعه پایدار (SDGs) در نیجریه کمک کند.

واژه‌های کلیدی: بیمه کشاورزی، ریسک کشاورزی، نظام‌های پایدار غذا، نیجریه

۱- گروه بیمه، دانشکده علوم مدیریت، دانشگاه ایالتی لاگوس، لاگوس، نیجریه

(*- نویسنده مسئول: Email: sunday.ajemunigbohun@lasu.edu.ng)

۲- گروه عملیات و مدیریت حمل و نقل، دانشکده حمل و نقل و لجستیک، دانشگاه ایالتی لاگوس، اوجو، لاگوس، نیجریه

DOI: 10.22067/jead.2023.78280.1159