

Poultry Farmers' Response to Agricultural Insurance in Delta State, Nigeria

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ABSTRACT The study examined the response of poultry farmers to agricultural insurance. The study was carried out in Delta North Agricultural Zone of Delta State, Nigeria. A sample size of 120 poultry farmers was used for the study. Trained field assistants in addition to the researcher collected the data. Descriptive statistics such as mean scores, frequency and percentage were used to summarize data, while t-test was used to determine differences in perception of constraints to agricultural insurance between participating and non-participating poultry farmers. Results of the study reveal that only 37% of the respondents insured their poultry farms. This indicates a low participation in agricultural insurance by the farmers. The study also found a generally favourable attitude of the farmers towards agricultural insurance. The poultry farmers agreed that agricultural insurance is beneficial and is needed to cushion the effects of losses and damages. Constraints to poultry farmers' participation in agricultural insurance identified by this study include: fears that claims may not be paid; inadequate knowledge on the benefits of agricultural insurance; late payment of compensation, high premium rate and compensation paid does not cover losses. The low participation of poultry farmers in agricultural insurance despite their favourable attitude could be blamed on these constraints. In order to enhance poultry farmers' participation in agricultural insurance, this study recommends that the government should make agricultural insurance more affordable to poultry farmers by subsidizing the cost of taking an agricultural insurance cover. Insurance companies should endeavour to keep religiously to contractual arrangements so as to allay the fears of farmers that claims may not be paid. Also, a special loan scheme for poultry farmers should be established by government to enable the farmers cope with the financial requirements involved in taking an agricultural insurance cover.

INTRODUCTION

Agricultural enterprises are usually faced with a lot of risks and uncertainties, some of which are natural hazard such as floods, drought, fire outbreak, diseases and pest attacks. Since the farmer cannot predict the probability of occurrence of any of these and cannot bear these risks and uncertainties alone, he is faced with the option of transferring or sharing the risks involved in the day-to-day management of his farm with one or more individuals or firms. According to Ogoke (1990), risk sharing involves persons with different risk attitude sharing the same risk.

Several methods are available by which a farmer can share or transfer risks. One of the methods is through insurance. Agricultural insurance is an economic component of farm management designed to reduce the adverse effect of natural disaster on farmers' incomes through the payment of indemnity. The National Agricultural Extension and Research Liaison Services (NAERLS 1991) identified the following as the benefits of agricultural insurance to farmers: (a) it protects farmers against financial disaster after suffering any of the insured risks for which indemnity (compensation) is paid. The farmer is

not only able to continue in business but also the stability of his income is enhanced; (b) agricultural insurance empowers the farmers to obtain farm credit. Since insurance guarantees protection against crop and/or livestock failure, the insured farmer has greater confidence in obtaining loans; (c) it facilitates better planning and project implementation since there is a high level assurance for continuity in business; (d) it serves as an assurance to banks and other financial institutions who grant loan for agricultural purposes that loans given will be repaid; and (e) it build farmers confidence in using new technologies and making greater investments in agriculture

Recognizing the benefits of agricultural insurance, the Nigerian Government in 1987 established the Nigerian Agricultural Insurance Scheme (NAIS) with the following objectives: (1) to provide relief or compensation to farmers in the event of crop or livestock losses resulting from natural disasters; (2) to encourage the provision of credit by financial institutions to farmers since agricultural insurance contract policies would be accepted as collaterals by them; (3) to minimize or eliminate the need for emergency assistance provided by government during agri-

cultural disasters; (4) to promote agricultural production by encouraging the adoption of new and improved farming technologies and in making greater investments in the agricultural industry; and (5) to reduce unemployment or underemployment amongst farmers to the extent of which crop and livestock failures are contributing factors. According to Chikwendu et al. (1995), the NAIS to date covers a wide range of crops and livestock enterprises such as: maize, rice, yam, cassava, millet, groundnut, wheat, sorghum, cattle, pigs, sheep, goat, and poultry. The premium on insurance cases for these crops and livestock are subsidized at 50% by the government. The scheme is designed for all classes of farmers, namely small, medium and large-scale.

The poultry industry in Nigeria has suffered a great deal of losses, which affect poultry farmers as well as poultry consumers (Ogoke 1990). Birds in general are prone to disease attack. A single attack can wipe out thousands of birds or even the entire farm. A case in point was the attack on the poultry industry in Nigeria by avian influenza in 2006. According to Bello (2006), the attack which almost closed the poultry industry in Nigeria claimed 44,000 layers, 32,000 broilers, 25 geese and 5 turkeys in Kaduna State. In Kano State, 43,000 layers, 15 broilers, 43 ducks, 28 geese, 20 turkeys and 2 ostriches were eliminated and in Katsina State 41,000 layers and broilers, 28,000 turkeys, 12 geese and 1 ostrich were killed. In a situation like this, insurance remains the only option to assist the farmers to go back to business.

It is in the light of the above that this study was conceived to examine the response of poultry farmers to agricultural insurance in Delta State of Nigeria. Specific objectives of the study were to: (a) ascertain the participation of poultry farmers in agricultural insurance; (b) ascertain poultry farmers' attitude towards agricultural insurance; (c) identify constraints to poultry farmers' participation in agricultural insurance; and (d) determine the differences in perceptions of constraints to agricultural insurance between participating and non-participating poultry farmers.

METHODOLOGY

The study was carried out in Delta North Agricultural Zone of Delta State. The zone is made up of 9 Local Government Areas (LGAs) and is notable for agricultural production. Major

agricultural activities in the zone include fishing, crop and livestock production. Poultry farmers in the zone formed the population from which sample for the study was drawn. Three LGAs were randomly selected out of the 9 LGAs in the zone. From each of the selected LGAs, forty poultry farmers were randomly selected using a list of poultry farmers obtained from the zonal office of the Veterinary Department of the State's Ministry of Agriculture and Natural Resources (MANR). This sampling procedure gave rise to 120 poultry farmers used for the study.

Structured interview schedule was used for data collection. Content validation of the research instrument was carried out. The instrument was pilot tested before administration to test for reliability. To ascertain respondents' participation in agricultural insurance, they were asked to indicate whether their farms were under insurance cover. This was determined through a "yes" or "no" response. The attitude of respondents towards agricultural insurance was determined by requesting them to respond to some attitudinal statements adapted from Mohammed et al. (2003). A 4-point Likert type scale of strongly disagree = 1; disagree = 2; agree = 3; and strongly agree = 4 was used to ascertain their responses. The mean of the response values which is 2.50 was taken as the cut-off point such that statements with mean score of 2.50 and above were regarded as those which farmers agreed to, implying a positive attitude. Statements with mean score of below 2.50 were regarded as those which respondents disagreed to, implying a negative attitude.

Constraints to farmers' participation in agricultural insurance was determined by making a list of possible constraints and requesting respondents to rate the degree of importance of the constraints along a 4-point Likert type scale of not important = 1; barely important = 2; important = 3; and very important = 4. The mean of the response values which is 2.50 was taken as the cut-off point such that constraints with mean score of 2.50 and above were regarded as important, while those with mean score of below 2.50 were regarded as less important constraints.

Descriptive and inferential statistics were used to analyze data. Descriptive statistics such as mean scores, percentage, standard deviations and frequency count were used to summarize data. t-test was used to determine differences in perception of constraints to agricultural insurance

between participating and non-participating poultry farmers. The alpha level for a significant difference was established a priori at 0.5.

RESULTS AND DISCUSSION

Respondents' Participation in Agricultural Insurance

Table 1 reveals that 44 (or 37%) of the respondents insured their poultry farms, while 76 (or 63%) did not insure their poultry farms. A critical study of data in the table further show that Ndokwa East LGA had the least number of participating farmers with only 9 (or 22.5%) of the 40 farms sampled being insured. In Oshimili South LGA, 19 (or 47.5%) of the farms were insured, while in Ika North East LGA, 16 (or 40%) of the farms were insured. The percentage of farms insured in each of the LGAs was below average. This suggests a low participation in agricultural insurance by the poultry farmers.

Table 1: Percentage distribution of respondents according to their participation in agricultural insurance

LGAs	Participants	Non-participants
Oshimili South	19 (47.5%)	21 (52.5%)
Ika North East	16 (40%)	24 (60%)
Ndokwa East	9 (22.5%)	31 (77.5%)
	44 (37%)	76 (63%)

The above finding agrees with that of Tologbonse et al. (1995) who found in a study on farmers' response to agricultural insurance in Kogi State, Nigeria that out of 51.7% of farmers that were aware of agricultural insurance, none of them took agricultural insurance policy. They concluded that farmers' awareness of agricultural insurance was not a major determining factor for participation.

Respondents' Attitude Towards Agricultural Insurance

Table 2 shows the mean scores and standard deviations of respondents' attitude towards agricultural insurance. Results of the analysis revealed that respondents agreed to the following statements: agricultural enterprise is faced with risks and uncertainties; agricultural insurance is beneficial; agricultural insurance reduces farmers' worries and stress; and recovering farmers' losses is government liability. Since respondents of this study recognized the fact that agricultural

insurance is beneficial and that it can help reduce farmers' worries and stress over uncertainties associated with agricultural enterprises, it implies that respondents had a favourable attitude towards agricultural insurance. This was further confirmed by an overall mean score of 2.60 which indicates a favourable attitude.

Table 2: Mean scores and standard deviations of respondents' attitude towards agricultural insurance

Statements	Mean score	SD	Remarks
1. Agricultural enterprise is faced with risks and uncertainties	3.10	0.70	A
2. Agricultural insurance is beneficial	3.62	1.00	A
3. Agricultural insurance reduces farmers' worries and stress	3.20	0.82	A
4. Recovering farmers' losses is government liability	2.70	0.62	A
5. Agricultural insurance should be mandatory	1.98	0.74	D
6. Agricultural insurance is not beneficial to small-scale farmers	2.10	0.92	D
7. Agricultural insurance is not needed to cushion the effects of losses or damages	2.26	0.81	D
8. Losses in agricultural enterprises are acts of God	1.84	0.36	D
Overall mean score	2.60		

Key: SD = Standard deviations; A = agree; D = disagree

Respondents further demonstrated their favourable attitude towards agricultural insurance by disagreeing with the statements that agricultural insurance is not beneficial to small-scale farmers; agricultural insurance is not needed to cushion the effects of losses or damages and that losses in agricultural enterprises are acts of God. However, respondents did not favour mandatory agricultural insurance policy. They believe that taking an insurance cover should be optional. These findings indicate that farmers recognized the fact that poultry enterprise being an agricultural activity is faced with risks and uncertainties and that one appropriate way to overcome such risks and uncertainties is through insurance cover.

Constraints to Poultry Farmers' Participation in Agricultural Insurance

Table 3 shows the mean scores and standard

deviations of constraints to poultry farmers' participation in agricultural insurance. Results reveal that 8 of the 11 constraints investigated by the study were considered important, while the remaining 3 constraints were considered less important. The important constraints include: fears that claims may not be paid; high premium rate; inadequate knowledge on the benefits of agricultural insurance; difficulty in implementing insurance policy; late payment of compensation and long bureaucracy in making an insurance contract.

Table 3: Mean scores and standard deviations of constraints to poultry farmers' participation in agricultural insurance

Constraints	Mean score	Standard deviations
1. Fears that claims may not be paid	2.80*	1.04
2. Inadequate knowledge on the benefits of agricultural insurance	2.87*	1.00
3. High premium rate insurance	2.61*	1.08
4. Lack of information about availability of agricultural insurance	2.20	1.00
5. Insurance is not a priority to farmers compared to other needs	2.60*	1.00
6. Beliefs of farmers in predestination and destiny	1.50	0.90
7. Difficulty in implementing insurance policy	3.20*	0.90
8. Low income of poultry farmers	2.10	0.80
9. Late payment of compensation	3.30*	1.00
10. Compensation paid does not cover losses	3.10*	0.80
11. Long bureaucracy in making an insurance cover	2.70*	0.80

Key: * important constraints

The constraints identified by this study could be responsible for the low participation of poultry farmers in agricultural insurance. An earlier study by Chinwendu et al. (1995) found that farmers' fears about the ability of insurance companies to pay indemnity was a major constraint to their participation in agricultural insurance. Farmers' poor capital base and high premium rate charged by insurance companies have also been reported in literature as factors that make it impossible for farmers to take insurance policy. Farmers have also been known to reject agricultural insurance due to the long bureaucratic pro-

cedure involved in taking up an insurance policy (Mohammed et al. 2003).

Differences in Perception of Constraints to Agricultural Insurance between Participating and Non-participating Poultry Farmers

Differences in perception of constraints to participation in agricultural insurance between participating and non-participating poultry farmers are presented in table 4. Results show that there were significant differences in the mean scores of the two categories of respondents in the following three constraints: inadequate knowledge on the benefits of agricultural insurance ($t = 0.95$); agricultural insurance is not a priority to farmers compared to other needs ($t = 0.94$); and beliefs of poultry farmers in predestination and destiny ($t = 0.58$). The significant areas of difference between the farmers indicated key issues for

Table 4: Test of difference in perceptions of constraints to agricultural insurance between participating and non-participating poultry farmers

S. No.	Constraints	Participants (n = 44)		Non-participants (n=76)		t
		Mean	SD	Mean	SD	
1.	Fears that claims may not be paid	2.51	0.97	2.70	1.04	1.65
2.	High premium rate	2.84	1.33	2.76	1.23	0.94
3.	Inadequate knowledge on the benefits of agricultural insurance	2.48	0.96	2.96	0.83	0.95*
4.	Lack of information about availability of agricultural insurance	2.57	0.85	2.79	0.81	-0.97
5.	Insurance is not a priority to farmers compared to other needs	2.30	1.33	2.64	1.23	0.94*
6.	Belief of farmers in predestination and destiny	2.14	1.09	2.56	0.87	0.58*
7.	Difficulty in implementing insurance Policy	2.48	1.18	2.23	1.30	1.57
8.	Low income of poultry farmers	2.12	1.05	2.50	1.01	1.25
9.	Late payment of compensation	2.85	1.35	3.37	1.04	-1.67
10.	Compensation paid does not cover losses	3.00	0.67	3.19	0.90	0.76
11.	Long bureaucracy in making an Insurance contract	2.52	1.08	2.75	1.27	-0.89

Key: * = significant ($P \leq 0.05$);
SD = Standard deviations

consideration in ensuring poultry farmers participation in agricultural insurance.

A cursory look at the three constraints in which the farmers had significant differences revealed that the mean scores of the non-participating farmers were higher indicating that they considered those constraints as being important to non-participation of farmers in agricultural insurance. When farmers are not adequately sensitized on the benefits of agricultural insurance, they may not see the need to take insurance cover. Similarly, when farmers weigh insuring their farm with other needs, they prefer to take chance of not insuring their farms believing in destiny that there may not be any disaster.

CONCLUSION

The study examined the response of poultry farmers to agricultural insurance in Delta State, Nigeria. Results show a low participation of poultry farmers in agricultural insurance. Farmers' attitude towards agricultural insurance was generally favourable. Respondents agreed that agricultural insurance is beneficial and that it reduces farmers' worries and stress. They however, did not agree that agricultural insurance should be mandatory.

Important constraints to poultry farmers' participation in agricultural insurance identified by the study include: fears that claims may not be paid; inadequate knowledge on the benefits of agricultural insurance; high premium rate and long bureaucracy in making an insurance contract. Participating and non-participating poultry farmers showed significant difference in their perceptions of 3 out of the 11 constraints that were investigated by the study. However, the overall difference in the perception of constraints to agricultural insurance was not significant.

RECOMMENDATIONS

The favourable attitude expressed by the poultry farmers towards agricultural insurance is an indication that they are willing to take insurance cover if encouraged to do so. However, their participation may be hindered by the constraints identified in this study. Recommendations of the study therefore includes that the government should make agricultural insurance more affordable to poultry farmers by increasing the present level of subsidy granted for agricultural insurance cover. Insurance companies should endeavour to keep religiously to contractual arrangements so as to allay the fears of farmers that claims may not be paid. Also, a special loan scheme for poultry farmers should be established by government to enable the farmers cope with the financial requirement involved in taking an agricultural insurance cover.

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