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Risks Mitigation Strategies Utilized by Poultry Farmers in Akwa Ibom State, Nigeria

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Abstract
This study investigated risks mitigation strategies utilized by poultry farmers in Akwa Ibom State. A total of 310 poultry farmers were selected across the three Agricultural zones in Akwa Ibom State using multi-stage sampling techniques. Relevant data were collected from the selected respondents with the aid of a questionnaire. The data were analyzed using descriptive statistics, Likert-type scale rating. Results from the study showed that majority of the farmers were male, the mean age of the respondents was 45.67 years, majority of the farmers were educated and the mean farm experience was 6.65 years. The farmers were faced with different types of risks such as; high cost of feed ($\bar{X}$=2.58), heat stress ($\bar{X}$=2.58), stampede among the birds (($\bar{X}$=2.58), poor veterinary services ($\bar{X}$=2.49), etc. Risks mitigation strategies employed by poultry farmers were avoiding overcrowding of birds, reducing poultry size and acquiring feed from safe and known sources. The result further showed that farmers adopted one measure in all items presented; sourcing for future market, use of control measures for predators and pests, disinfection of poultry premises. It was concluded that risks mitigation strategies adopted by poultry farmers in Akwa Ibom State have helped tremendously in sustenance and profitability of the enterprise. The study recommended better and stronger collaborations between the farmers, stakeholders and Extension agents for holistic review of the strategies for the sustainability of the poultry industry.
Key words: Risks, Mitigation strategies, Poultry farmers, Akwa Ibom

Introduction

The livestock sector can be regarded as a fundamental aspect of agricultural production (Udoka, Bassey and Okorie, 2019). Poultry production involves the process of rearing domestic birds chiefly for poultry meat and eggs supply for human consumption (Udo, Okorie and Udoekpo, 2019). Poultry production is a commercially feasible business that contributes significantly to Gross Domestic Product (GDP). In Nigeria, it has become a full-time job for many, especially in Akwa Ibom State, with most of the poultry farmers engaging majorly in small-scale production with slight options for diversification and insurance (Babalola, 2013), thus their attitude to risk mitigation measures often influences their adoption of new technologies and propensity for goal attainment.

About 180 million birds comprise the Nigerian poultry industry. Nigeria, behind South Africa, has the second-largest chicken population in Africa (SAHEL, 2015), in 2013, turned an output of 650,000 tonnes of eggs and 300,000 tonnes of poultry meat according to the Food and Agricultural Organization Statistic (FAOSTAT, 2018). An estimated total of 40 million hens is raised intensively, 60 million in semi-intensive systems, and 80 million in extensive systems (African Sustainable Livestock (ASL) 2050, 2018). The sector is one of the leading enterprises in Nigeria's Agricultural sector, with widespread acceptance among most

of the citizens in all regions in Nigeria due to its prolific instincts in rearing and short-term rate of returns in terms of monetary and other kinds of benefits, without any religious or cultural restriction.

Amidst the importance of poultry, rural communities in developing countries continue to face widespread chronic malnutrition and micronutrient deficiencies. Poultry production holds significant potential to enhance rural household nutrition, as many low-income rural families depend on domestic chickens as their main source of animal protein and essential micronutrients (Iannotti, Barron, & Roy, 2008). Despite this potential, the sector remains underutilized due to the high level of risk and uncertainty that characterizes agricultural enterprises.

Farmers in Nigeria routinely make production decisions under risky and uncertain conditions, such as erratic weather patterns, outbreaks of disease, fluctuating prices, limited access to inputs, and unpredictable policy environments. These conditions hinder accurate forecasting and long-term planning, contributing to farmers' generally risk-averse behavior and hesitancy toward innovation adoption (Salman et al., 2012). The sustainability and success of poultry farming projects hinge on the farmers' risk attitudes and coping strategies. Smallholder farmers tend to prioritize stability over profit when allocating resources, particularly in uncertain conditions. Understanding how farmers perceive and manage risk is therefore vital for designing effective, farmer-centered support systems (Abimbola *et al.,* 2018).

In Akwa Ibom State, poultry production contributes only 1.6% to Nigeria's national output (FAOSTAT, 2018) a figure that is under threat due to prevailing risks and uncertainties. The situation is exacerbated by the increasing closure of poultry farms and dwindling investor interest, which have led to rising poultry product prices and declining protein consumption. This has far-reaching consequences on public health, education, income, and productivity. If left unaddressed, these challenges could lead to a collapse of the poultry industry, with dire consequences for food security, nutrition, and farmers' livelihoods (Baruwa & Adesuyi, 2018). While there is existing research on risk attitudes among farmers in other regions of Nigeria (e.g., Babalola, 2014; Banjoko et al., 2014; Iheke & Igbelina, 2016), there is a noticeable gap in studies examining the specific risk-coping strategies of poultry farmers in Akwa Ibom State.

This research is therefore necessary to fill this gap by assessing the types of risks faced by poultry farmers in Akwa Ibom, their coping mechanisms, and the effectiveness of these strategies. Findings from the study will help inform the development of robust, context-specific risk management frameworks to support sustainable poultry production and enhance rural livelihoods in the region.

The specific objectives of this study were to;

i. describe the socioeconomic characteristics of poultry farmers in the study area;
ii. examine the different types of risks associated with poultry farming;
iii. evaluate the risk mitigation strategies employed by the poultry farmers.

Research Methodology

The study was carried out in Akwa Ibom State, Nigeria. Akwa Ibom State is located in the Niger Delta region of Nigeria. It has an estimated population of 5.451 million (NBS, 2016) and a land area of 6,900 sq. Km. It is currently the highest oil-producing State in Nigeria. Agriculture is the dominant economic activity of Akwa Ibom State. The various agricultural products include palm oil, cassava, yam, cocoyam, plantain, maize, rice, rubber, seafood such as varieties of fish, shrimps, crayfish, oysters, poultry eggs and meats, pork, and lately snail farming. Akpan *et al.,* (2013) noted that the poultry enterprise is an emerging business in most of the area, with commercial broiler and egg production becoming very popular among the inhabitants of the area.

Sample and Sampling procedure

A simple random sampling technique was used to carry out a proportional selection of blocks from each of the six (6) zones using 20% as a benchmark. In addition, a random sampling technique was used to carry out a proportional selection of cells from the selected blocks in each zone using 20% as a benchmark which was followed by the sampling of ten households in each of the selected cells, using a systematic random

sampling technique. Household heads responded to the questionnaire. Hence, approximately 10 blocks, 30 cells, and 300 practicing farmers were sampled across the state.

Analytical Techniques

Objective 2 was analyzed using a three-point Likert-type scale which was rated; 3 = very serious, 2 = serious, and 1 = not serious as a response to risks faced by the farmers. For the purpose of decision making, the results were interpreted such that 2.50–3.00 indicated the factor was considered very serious, 1.50–2.49 indicated it was considered serious, and 1.00–1.49 indicated it was considered not serious.

Objective 3 was analyzed with the use of a three-point Likert-type scale which was rated; 3 = regularly, 2 = sometimes, and 1 = not at all as a response to risk mitigation strategies that were utilized. For the purpose of decision making, the results were interpreted such that a mean value of 2.50–3.00 indicated that the strategy was regularly utilized, 1.50–2.49 indicated it was sometimes utilized, and 1.00–1.49 indicated it was not utilized at all.

Results and Discussion

Socio-Economic Characteristics of Poultry Farmers in the Study Area

Table 1 shows the result of the social characteristics of poultry farmers in the study area. The gender distribution of the respondents showed that the majority of the poultry farmers were male (64.19%). statistics point to the increasing role of women engaged in poultry production for commercial purposes and not just for household consumption as reported by Okoh, Rahman, and Ibrahim (2010). The age distribution of the respondents showed the mean age of the respondents was 45.67years. The mean age allows them to adapt to changing trends in risk management as the opportunity to learn and adapt to changes is high. Udo et al., (2019) and Adeyonu et al. (2021) had a mean age of 42 and 43.41 years respectively.

For marital status a larger proportion (78.39%) of the respondents were married. The result showed that many of the respondents with large households may take advantage of utilizing household members as labour sources. The educational attainment of the respondents showed that a larger proportion (62.26%) of the respondents had received secondary education, this was closely followed by 27.74% of the respondents who had gone to tertiary institutions, 6.13% of the respondents had only primary education.

The findings showed that most (70.00%) of the respondents did not belong to any cooperative organization. The mean distribution of the years of experience gained stood at 7.23 years. The distribution of the respondents according to household size showed a mean household of 6persons. This could affect the attitude of the farmers towards risks and handling risks, as they may give priority to the welfare of their household over their enterprise.

Table1: Social Characteristics of Poultry Farmers in the Study Area n = 310

Characteristics	Frequency	Percentage
Gender		
Male	199	64.19
Female	111	35.81
Age		
20 – 30	53	17.09
31 – 40	87	28.06
41 – 50	118	38.07
51 – 60	44	14.19
>60	8	2.59
Mean	**45.67**	
Marital Status		
Single	53	17.09
Married	243	78.39

Divorced	8	2.58
Widowed	6	1.94
Education attainment		
No Formal	12	3.87
Primary	19	6.13
Secondary	193	62.26
Tertiary	86	27.74
Mean	**13.65**	
Member of Social Organization		
Yes	93	30.00
No	217	70.00
Farming Experience		
1 – 5	111	35.81
6 – 10	172	55.48
11 – 15	21	6.77
16 – 20	6	1.94
Mean	**7.23**	
Household Size		
0 – 5	118	38.07
6 – 10	155	50.00
> 10	37	11.94
Mean	**6**	

Source: (*Field Survey*), 2025.

Type of Risks Faced by Poultry Farmers in the Study Area

Table 2 shows the different types of risks associated with poultry farming in the study area. The result showed that high cost of feed ($\bar{X}$=2.58), heat stress ($\bar{X}$=2.58), stampede among the birds (($\bar{X}$=2.58), poor veterinary services ($\bar{X}$=2.49), cost of drugs and medications($\bar{X}$=2.43), lack of storage and processing facilities ($\bar{X}$=2.43), ill health of the farmer ($\bar{X}$=2.43) improper record keeping ($\bar{X}$= 2.42), the outbreak of diseases among the birds ($\bar{X}$=2.41) and acquiring of birds from wrong sources ($\bar{X}$=2.41) were considered serious risk to the farmers. It can be inferred from the result, that many of the risks considered serious and high-ranking by the farmers were financial and management risks. Okorie *et al.,* (2022) noted the need to ensure that agricultural innovations or information reaching farmers is in line with the needs of the farmers and should be capable of contributing to the enhancement of their performance, considering the economic importance of the poultry sector. Iheke and Igbelina (2016) noted that financial risks, production risks, pricing, and market and casualty risks were major type of risks facing farmers. Binuyo *et al.,* (2020) mentioned the rise in costs of inputs, disease outbreaks, inadequate storage facilities, government policy change, and lack of loans to farmers as high-risk sources.

Table 2: Risks Faced by the Poultry Farmers in the Study Area

Risks	Not Serious	Serious	Very Serious	Mean Score	Rank
High cost of feed	40	49	221	2.58	1st
Improper record keeping	66	49	195	2.42	4th
Outbreak of diseases among the birds	69	44	197	2.41	5th
Acquiring birds from the wrong sources	69	44	197	2.41	5th
Lack of storage and processing facilities	54	71	185	2.43	3rd
Poor veterinary services	34	65	211	2.49	2nd
Lack of quality feed for improved yield	40	49	221	2.58	1st
Stampede among the birds	54	71	185	2.43	3rd
Market price fluctuations	68	93	149	2.31	6th
Input price fluctuation	69	44	197	2.41	5th
Ill health of the farmer	54	71	185	2.43	3rd
Heat stress	40	49	221	2.58	1st
Cost of drugs and medications	69	44	197	2.43	3rd

Source: *Field Survey, 2025*

Risks Mitigation Strategies Utilized by Poultry Farmers

Table 3 showed that avoiding overcrowding of birds ranked highest, having a mean value of ($\bar{x}$=2.94), reducing poultry size ($\bar{x}$=2.90), acquiring feed from safe and known sources ($\bar{x}$=2.94), sourcing for future market ($\bar{x}$=2.77), use of control measures for predators and pests ($\bar{x}$=2.77), Disinfection of poultry premises ($\bar{x}$=2.75), Attending extension workshops on poultry ($\bar{x}$ =2.75), Use of disease-resistant breeds ($\bar{x}$=2.73), acquiring birds from a safe and reliable supplier ($\bar{x}$ =2.71), Quarantine of sick or diseased birds ($\bar{x}$ =2.70), Keeping extra cash for emergencies ($\bar{x}$ =2.70), Relaxation of pens ($\bar{x}$ =2.70) and Controlled access of visitors around the poultry farm ($\bar{x}$ =2.62) were considered as regularly utilized risks mitigation strategies used by poultry farmers in the study area. The result implies that the farmers in the study area have employed a wide range of strategies to mitigate and combat the various risks they are faced with. The result indicated that many of the farmers actively practice the avoidance of overcrowding their birds and regularly disinfect their farms. Adeyonu *et al.* (2021) noted with high level of losses that farmers may experience in terms of mortality as a result of not giving the risks the attention required. It is indicated by the result that many of the farmers are aware of or have been confronted by various risk factors and have responded by adopting various risk mitigation measures to ease the effects and impacts of the risks.

Table 3: Risk Mitigation Strategies Utilized by Poultry Farmers in the Study Area

Mitigation Strategies	Not at all	Sometimes	Regularly	Mean	Rank
Avoiding overcrowding of birds	5	10	295	2.94	1st
Controlled access of visitors around the poultry farm	46	27	237	2.62	9th
Acquiring birds from a safe and reliable supplier	25	41	244	2.71	7th
Reducing poultry size	10	24	276	2.90	2nd
Acquiring feed from safe and known sources	16	31	263	2.79	3rd
Sourcing for future market	26	17	267	2.77	4th
Disinfection of poultry premises	21	34	255	2.75	5th
Use control measures for pests, predators and rodents	17	37	256	2.77	4th
Quarantine of sick or diseased birds	32	29	249	2.70	8th
Attending extension workshops on poultry	6	66	238	2.75	5th
Keeping extra cash for emergencies	13	67	230	2.70	8th
Use of disease-resistant breeds	12	60	238	2.73	6th
Changing of shoes when entering the poultry house	6	70	234	2.73	6th
Relaxation of pens	20	48	242	2.70	8th
Grand mean				**2.75**	

Mean Score = 2.0

Source: *Field Survey, 2025*

Conclusion

The study revealed that poultry farmers in Akwa Ibom State were confronted with multiple risks, the most critical being the high cost of feed, heat stress, and stampede among birds. Other significant risks included poor veterinary services, high cost of drugs and medications, lack of storage facilities, ill health of the farmer, improper record keeping, outbreak of diseases, and acquiring birds from unreliable sources. These risks were predominantly **financial and management-related**. Farmers adopted a variety of risk mitigation strategies, with the most prominent being the avoidance of overcrowding, acquiring feed from safe and known sources, reducing poultry size, sourcing for future markets, and implementing predator and pest control measures. Regular disinfection, attendance at extension workshops, use of disease-resistant breeds, proper quarantine procedures, and maintaining emergency funds were also widely practiced. The high utilization of these strategies indicates that farmers are aware of the risks and actively work to minimize their impact. However, the persistence of these risks suggests that while mitigation measures are in place, more structural and policy interventions are needed to enhance their effectiveness.

Recommendations

Based on the findings from this research, the following recommendations were proposed;

1. **Input Subsidy and Credit Support** – Government and development agencies should provide subsidized feed, drugs, and vaccines to reduce the financial burden on farmers. Access to affordable credit facilities should also be improved to enable farmers to implement more effective risks mitigation measures.
2. **Strengthening Veterinary and Extension Services**: Expansion of veterinary clinics and recruitment of more extension officers to deliver timely training, disease diagnosis, and treatment services to farmers**.**

3. **Capacity Building**: Regular workshops and training sessions on improved biosecurity, record-keeping, and farm management practices should be organized, with emphasis on practical demonstrations.
4. **Policy Support for Risk Insurance**: Encourage the adoption of agricultural insurance schemes tailored to poultry farmers to cushion the effects of mortality, disease outbreaks, and market fluctuations.

References

Abimbola, O. A. and P. P. Osunbor. (2018). Small Scale Poultry Farmers' Choice of Adaption Strategies to Climate Change in Ogun State, Nigeria. *Rural Sustainability Research*. 40(335): 32 – 40.

Adeyonu, A. G., Otunaiya, A. O., Oyawoye, E. O. and Okeniyi, F. A. (2021). Risk perceptions and risk management strategies among poultry farmers in south-west Nigeria. *CogentSocialSciences.* 7:1, 1891719.

Akpan, S. B., Patrick, I. V., Udoka, S. J., Offiong, E. A. and Okon, U. E. (2013). Determinants of Credit Access and Demand among Poultry Farmers in AkwaIbom State, Nigeria. *American Journal of Experimental Agriculture*. 3(2): 293 – 207.

Babalola, D. A. (2013). Risk Preferences and Coping Strategies among Poultry Farmers in Abeokuta Metropolis, Nigeria. *Global Journal of Science Frontier Research: D Agriculture and Veterinary.* Vol. 14 (5) 1: 22 – 30.

Banjoko, I. K., Falola, A., Babatunde, F. B., and Atolagbe, R. (2014). Assessment of risks and uncertainties in poultry farming in Kwara State, Nigeria. *Science, Technology and Arts Research Journal*. 3(4): 64–70. https://doi.org/10.4314/star.v3i4.9

Baruwa O. I., Adesuyi A. Z. (2018) Managing Farm Risk: Issues and Strategies in Small Scale Poultry Farmers in Osun State, Nigeria. *J Fisheries Livestock Prod* 6: 278. doi: 10.4172/2332-2608.1000278

Central Bank of Nigeria (CBN). (2021). *Annual report and statement of account*. Abuja: Central Bank of Nigeria. Accessed on April 29, 2023, from http://statistics.cbn.gov.ng/cbn-onlinestats/QueryResultWizard.aspx

Echebiri, R. N. and Onu, D. O. (2019).Risk Management Strategies among Smallholder Arable Crop Farmers in IbionoIbom Local Government Area, AkwaIbom State, Nigeria. Nigerian Agricultural Journal. 50 (1): 22 – 29.

Iannotti, L., M. Barron and D. Roy. (2008). *Animal Source Food Consumption and Nutrition among Young Children in Indonesia: Preliminary Analysis for Assessing the Impact of HPAI on Nutrition. DFID Pro-poor HPAI Risk Reduction Strategies Project Research Report.*http://94.126.106.9/r4d/PDF/Outputs/HPAI/wp17_IFPRI.pdf

Iheke, O. R., &Agodike, W. C. (2016). Analysis of factors influencing the adoption of climate change mitigating measures by smallholder farmers in IMO state, Nigeria. *Sci. Pap. Ser. Manag. Econ. Eng. Agric. Rural Dev*, *16*, 213-220.

National Bureau of Statistics. (NBS). (2016). *National Population Estimates 2006 – 2016*.

Okoh, S. O., Rahman, S. A. and Ibrahim, H. I. (2010). Gender Participation in Commercial Poultry Production in Karu and Lafia Areas, Nassarawa State, Nigeria. *Livestock Research for Rural Development.* 22: #160. Retrieved July 22, 2022, from http://www.Irrd.org/Irrd22/9/okoh22160.htm

Okon, E. E. (2017). *Risk Management Strategies and Determinants of Poultry Farmers Adoption of Agricultural Insurance in Abak Local Government Area of AkwaIbom State.*B.Agric Thesis Submitted to Department of Agricultural Economics and Extension, AkwaIbom State University, AkwaIbom State. 69 Pages.

Okorie, N.U., Okoro, G.I., and Etuk, U.R. (2022). Analysis of Poultry Farmers' Information Needs in Uyo Agricultural Zone, Nigeria. AKSU Journal of Agricultural Economics, Extension and Rural Development. 5(1): 64 – 71.

Ologbon, O. A C. and Ambali, I. O. (2012). Poultry enterprise combination among small-scale farmers in Ogun State, Nigeria: A technical efficiency approach. *Journal of Agriculture and Veterinary Science.* 4: 7 – 15.

SAHEL. (2015). *An Assessment of the Nigerian Poultry Sector.* http://sahelcp.com/anassessment-of-the-nigerian-poultry-sector/. SAHEL. 11: 1-3.

Salman, K. K., Ashagidigbi, W. M. and Jabar, K. T. (2012). Correlates of Risk-Aversion among Poultry Farmers in Ibadan, Nigeria. *Journal of Rural Economics and Development*. 19 (1): 46 – 60.

Udo, U.J., Okorie, N. and Udoekpo, N. (2019). Broiler Birds Production Performance of New Farm Entrants in Uyo, AkwaIbom State, Nigeria. *AKSU Journal of Agricultural Economics, Extension and Rural Development.* 2(1): 1 – 11.

Windhorst Hans-Wilhelm (2011): Africa Gradually Moves Towards Market-Orientated Production. *World Poultry Magazine*. 27(7): 6-8.