

PERCEIVED EFFECTIVENESS OF AGRICULTURAL INFORMATION CHANNELS (AIC) IN MARKETING OF POULTRY EGGS IN IJEBU NORTH-EAST LOCAL GOVERNMENT AREA OF OGUN STATE

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ABSTRACT

The productivity of the poultry industry like any other industry is hinged on adequate dissemination of information through appropriate channels. This study assessed the perceived effectiveness of agricultural information channels in marketing of poultry eggs in Ijebu North East local government area of Ogun state. Fifty four randomly selected poultry farmers and an equal number of purposively selected marketers were administered with questionnaires. Data on socioeconomic characteristics, availability and extent of use of AIC as well as perceived effectiveness of the channels were collected and analysed. Results showed that more of the farmers were male (81.7%) compared to the marketers, majority of the respondents had formal education (91.7%) and had over five years of experience in their trades (94.4 and 90.7%). Mobile phone was the most readily available and utilised AIC (97.2% and $\bar{x} = 1.46$) while the presence of extension agents was not very pronounced (62.0% and $\bar{x} = 0.73$). Inconsistent power supply ($\bar{x} = 1.52$) was the most limiting constraint to the use of the AIC. There was significant difference in the perceived effectiveness of AIC among poultry farmers and marketers ($t=3.833$, $p\leq 0.005$). Sustained use of preferred channels of information was thus advocated while extension agents were urged to step up their activities.

Keywords: egg marketing, extent of use, information channels

INTRODUCTION

The livestock industry is very important to the Nigerian economy. It provides a good source of animal protein such as meat, milk and egg that are rich in the essential amino acids required for body functions. It also provides job for a large section of the populace and as a result, is crucial for sustainability of food production and fostering of food security in Nigeria.

The poultry industry constitutes an important segment of the livestock industry and has become a diverse industry with a variety of business interests such as egg production, broiler production, hatchery, and poultry equipment business (Amos, 2006). According to Alabi and Osifo (2004), the poultry sector constitutes more than 57% of the total livestock production in Nigeria. People go into poultry either for egg or meat production or in many cases, both.

Egg production is one area that is fast gaining prominence among new and old poultry farmers due to its fast income generating potential. Apart from the high level of protein in egg, it is more easily affordable by the common man than other sources of protein. Thus, egg production is vital for healthy living and food security.

The sustainability of egg production is hinged on marketing of its output by the producers, hence the need for enquiry into the processes involved. Adewuyi, Ayinde, Ashaolu and Lukman (2009) opined that many prospective poultry farmers are being deterred from venturing into the business because of inadequate information and background knowledge on the primary determinants of market supply and demand of eggs. This underscores the importance of information to the continual success of

the sector. Munyua (2000) stated that knowledge and information are basic ingredients of food security, are essential for facilitating rural development and bringing about social and economic change. Hence, information is needed to guide egg producers in marketing their produce.

Moreover, it is a common knowledge that there is a very wide gap between the farm gate price and the price paid in wholesale markets and by consumers, marketing information can therefore help narrow the gap. Marketing information in this sense is a component of a larger body of agricultural information disseminated through various channels.

Agricultural information channels are conventional channels of information dissemination used in the transfer of vital agricultural information to the farmers. Munyua, (2000) stated that traditional media such as rural radio, has been used in delivering agricultural messages to rural farmers where they are not faced with constraints in accessing agricultural information while other ways of delivering these messages or information to the rural farmers include print, video, television, films, slides, pictures, drama, dance, folklore, group discussions, meetings, exhibitions and demonstrations.

Since agricultural information interacts with and influences agricultural productivity in many ways, egg producers and marketers' productivity can arguably be improved by relevant, reliable and useful information or knowledge. Marketing information for instance, enables stakeholders (farmers, marketers, and consumers) know the prevailing prices of their produce, market locations and other marketing factors.

Poultry farmers' association and cooperatives in Ijebu North East Local Government Area (LGA) of

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Ogun state understood the above stated and have since been providing agricultural marketing information to all stakeholders through monthly meetings, bi-monthly bulletin, and farm forum programs on radio, television and through extension agents.

Despite all these efforts, farmers and marketers in the area still complain about challenges in the area of egg marketing. In trying to find a solution to this problem, this research effort assessed the effectiveness of agricultural information channels used in the marketing of eggs in the study area.

Specific Objectives

The specific objectives of the study were to;

1. determine the personal characteristics of the respondents.
2. ascertain the available agricultural information channels known to the respondents.
3. determine the extent of use of agricultural information channels in marketing of poultry eggs
4. identify the constraints poultry farmers encounter in the use agricultural information channels in marketing of poultry eggs.

Table 1: Sampling procedure for the study

Wards	Number of registered poultry farmers	30% of registered poultry farmers	Selected marketers in each wards	Total Respondents
Erunwon	30	9	9	18
Atan	28	8	8	16
Idona	25	8	8	16
Ilefon	32	10	10	20
Ogbogbo	25	8	8	16
Igbasa	35	11	11	22
Total	175	54	54	108

Structured questionnaire was used to elicit data for the study. Respondents were asked to state agricultural information channels available to them from a list of channels provided and as well state the extent of use of the stated channels using a three-point scale of always, sometimes and never. Constraints faced in the use of the channels were measured using a three-point scale of serious, mild and not a constraint while perceived effectiveness of the channels was measured using a three-point scale of not effective, effective and very effective to respond to a list of stated measures of effectiveness. The instrument was pretested in a ward that was not part of the study and a reliability co-efficient of 0.77 was attained.

RESULTS AND DISCUSSION

Socioeconomic characteristics

Table 2 indicates that majority (63.9%) of the respondents were within the age group of 31-50 while the least group (4.6%) comprised respondents whose age range is above 50 years. The implication of this finding is that poultry business is practiced mainly by youths and young adults. This category of people is usually vibrant and inquisitive, and as such would be

Hypotheses of the study

1. There is no significant relationship between the extent of use of agricultural information channels and their perceived effectiveness in the marketing of poultry eggs.
2. There is no significant difference in the perceived effectiveness of the agricultural information channels in marketing poultry eggs between marketers and producers.

METHODOLOGY

The study was carried out in Ijebu North East LGA of Ogun state. The population of the study consisted of marketers and registered poultry farmers in the study area. Six wards (Erunwon, Atan, Idona, Ogbogbo, Igbasa and Ilefon) were purposively selected due to high concentration of poultry farms in the areas. Using a list of all registered poultry farmers which was obtained from Poultry Farmers' Association in the LGA, 30 percent of registered poultry farmers from each ward were randomly selected while snow-ball technique was used to select an equal number of marketers in each of the selected wards. The breakdown is as shown in Table 1.

interested in sourcing for information that could enhance their livelihood.

Many (56.5 %) of the respondents were males while the remaining 43.5 percent were female. Meanwhile, more of the poultry farmers (81.7%) were male while only (31.5 percent) of the poultry egg marketers were male. This implies that the female folks were more prominent in marketing activities compared to production.

Majority (76.9%) of the respondents were married while 21.3% were single. This implies that majority of the respondents have opportunity for family labour. This also suggests more responsibilities as well as demand for resources to meet family needs.

A little more than half (58.3%) of the respondents were Muslims while the remaining 47.1% were Christians. This is an indication that poultry business has no religion limitations.

A large proportion (49.1%) of the respondents had primary education, 23.1% had secondary education, and 19.4% had tertiary education while a minority had no formal education (8.3%). This implies that most of the respondents were literates which could influence their receptivity to agricultural

information.

Majority (64.8) had a household size of 4-6 persons while 16.7% had 1-3 household members and about 18.5% had above 6 household members. This implies that a lot of the respondents had large family sizes. It is common knowledge that large household is advantageous to farming as labour may be derived from members.

An overwhelming majority (94.4%) of the poultry farmers had more than 5 years experience in the business while a minority (5.6%) had less than five years experience in the poultry business. Similarly, majority (90.7%) of the poultry egg marketers had more than five years experience in poultry egg marketing. These suggest that most of the respondents are not novices in poultry business.

Information on scale of operation revealed that about 42.6% of the poultry farmers had between 1001-3000 birds, 27.8% had between 3001-5000 birds while 9.2% had above 5000 birds. This suggests that poultry farmers in the study area operated on a large scale.

Table 2: Distribution of respondents' socioeconomic characteristics

Variable	Freq.	%
Age		
21-30	34	31.5
31-40	42	38.9
41-50	27	25.0
51 -60	05	4.6
Sex		
Male	61	56.5
Female	47	43.5
Marital status		
Single	23	21.3
Married	83	76.9
Divorced	2	1.8
Religion		
Islam	63	58.3
Christianity	45	41.7
Educational qualification		
Non-formal	09	8.3
Primary	53	49.1
Secondary	25	23.1
Tertiary	21	19.4
Household size		
1-3 members	18	16.7
4-6 members	70	64.8
>6 members	20	18.5
Number of years in poultry farming		
<5 years	3	5.6
5-10 years	26	48.1

11-16 years	16	29.6
17-22 years	9	16.7
Number of years in poultry egg marketing		
<5 years	5	9.3
5-10 years	19	35.2
11-16 years	26	48.1
17-22 years	4	7.4
Number of birds owned		
≤ 1000	11	20.4
1001-3000	23	42.6
3001- 5000	15	27.8
>5000	05	9.2

Availability of agricultural information channels and extent of use

Table 3 revealed that mobile phone was the most readily available (97.2%) agricultural information channel among the respondents. Others like radio (86.1%) and television (76.9%) were also found to be more readily available, compared to print media (66.7%), extension agent (62%) and internet (62.0%,).

It was also discovered that mobile phones ($\bar{x} = 1.46$), radio ($\bar{x} = 1.24$) and television ($\bar{x} = 1.16$) were the most utilised agricultural information channels among the respondents. However, print media ($\bar{x} = 0.74$), extension agents ($\bar{x} = 0.73$) and internet ($\bar{x} = 0.56$) were found to be less utilised compared to the above three channels. Further breakdown of extent of use of the channels showed that more of the respondents (57.4%) used the mobile phone always compared to 38.0 and 36.1% who used the radio and television always for market information sourcing. Meanwhile, more of the respondents (48.1%) used the radio sometimes compared to 43.5 and 31.5% who used the television and mobile phone respectively. This finding is in consonance with Falola and Adewumi (2013) who reported high frequency of use of mobile phone by farmers for their farm operations. The findings also agrees with Oladosu and Akintonde (2004) as cited by Sobalaje and Adigun (2013) that radio and television have become important media for agricultural information in countries with transmitters and where farmers have access to receiving sets. This therefore suggests the trio of mobile phone, radio and television could be effectively used to promote the marketing of eggs in the study area.

Table 3: Availability and extent of use of agricultural information channels (n = 108)

Information channels	Availability		Extent of use (%)			Mean
	Freq.	%	Always	Sometimes	Never	
Radio	93	86.1	38.0	48.1	13.9	1.24
Television	83	76.9	36.1	43.5	20.4	1.16
Mobile phone(SMS, MMS, Phone calls)	105	97.2	57.4	31.5	20.4	1.46
Internet(Email, Facebook, Twitter)	35	32.4	11.1	21.3	67.6	0.56
Extension agents	67	62.0	14.6	42.5	42.9	0.73
Print Media(Newspaper, Journals)	72	66.7	14.8	42.6	42.6	0.74

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Constraints faced by respondents in the use of agricultural information channels in marketing poultry eggs

The major constraints to the use of agricultural information channels were; inconsistent power supply (\bar{x} =1.52), poor network reception signal (\bar{x} =1.36), low awareness of the importance of agricultural

information channels (\bar{x} = 1.28) and lack of technical know-how (\bar{x} = 1.23). This finding is in line with the submission of Sobalaje and Adigun (2013) that infrastructural facilities are the major problems constraining the use of ICTs among yam farmers in a similar study.

Table 4: Constraints poultry farmers and marketers encounter in the use of agricultural information channels in marketing of poultry eggs (n = 108)

Constraint	Serious constraint	Mild constraint	Not a constraint	Mean	Rank
Inconsistent supply of power	65.7	20.4	13.9	1.52	1 st
Irrelevant access to AIC	39.8	43.5	16.7	1.23	4 th
Language barriers	17.6	46.3	36.1	0.81	15 th
High call tariff	24.1	50.0	25.9	0.98	14 th
Low awareness	47.2	33.3	19.4	1.28	3 rd
Fluctuating service	19.4	67.6	13.0	1.06	10 th
Network coverage	26.9	60.2	13.0	1.14	9 th
Cost of recharge card	18.5	43.5	38.0	0.81	15 th
High cost of maintenance	25.9	48.1	25.9	1.00	13 th
Lack of technical knowhow	42.6	38.0	19.4	1.23	4 th
Inadequate technological content	35.2	46.3	18.5	1.17	7 th
Unavailability and cost of batteries	45.4	25.0	29.6	1.16	8 th
Inappropriate scheduling of programme/missing of information	39.8	40.7	19.4	1.20	6 th
Poor reception of signal	18.5	65.7	15.7	1.36	2 nd
Maintenance of tool and equipment	21.3	63.0	15.7	1.06	10 th
Innovation difficult/complicated	15.7	63.0	21.3	1.03	12 th

Perceived effectiveness of agricultural information channels in the marketing of poultry eggs

Table 5 shows that radio (\bar{x} =1.10), newspaper (\bar{x} =1.08), poultry farmers association (POFAN) (\bar{x} =1.05) and extension agents (\bar{x} =1.03) were perceived to be effective channels in providing research related information on market by the respondents. Meanwhile, television (\bar{x} =1.10), internet (\bar{x} =1.06), radio (\bar{x} =1.03) and extension agents (\bar{x} =0.99) were perceived to be effective in providing information on prevailing price of inputs and produce whereas, radio (\bar{x} =1.19), television (\bar{x} =1.06), internet (\bar{x} =0.99) and extension agents (\bar{x} =0.90) were perceived to be effective in providing information on market location. Radio (\bar{x} =1.31), television (\bar{x} =1.25), poultry farmers association (\bar{x} =0.97) and newspapers (\bar{x} =0.91) were perceived to be effective in advertising poultry eggs. In addition, television (\bar{x} =0.99), radio (\bar{x} =0.94), POFAN and extension agents (\bar{x} =0.80) were perceived to be effective in providing information on finance and credit facilities. Meanwhile, POFAN (\bar{x} =0.82), extension agent (\bar{x} =0.81), internet (\bar{x} =0.81) and television (\bar{x} =0.76) were perceived to be effective in providing information on transportation, whereas POFAN (\bar{x} =1.02), radio (\bar{x} =0.90), extension agents (\bar{x} =0.86) and internet (\bar{x} =0.78) were perceived to be

effective in providing information on seasonal change while research institute (\bar{x} =1.06), POFAN (\bar{x} =1.00), internet (\bar{x} =0.96) and radio (\bar{x} =0.95) were perceived effective in providing agricultural information on quantity and quality of eggs. Generally, radio and television were very effective among the information channels listed as they were consistent in all areas through the findings. This finding agrees with the position of Nazar and Hasbullah (2010) citing Tancard and Verner (2005) that radio and television, have had an outstanding position particularly with regard to informal teaching, and are considered as the best cultural and educational media.

Test of difference of perceived effectiveness of AIC on marketing of poultry eggs among poultry farmers and egg marketers

Table 6 shows that there was a significant difference in the perceived effectiveness of agricultural information channels on marketing of poultry egg among poultry farmers and egg marketers (t=3.833, p≤0.005). Using the mean scores as parameters, it can be deduced that poultry farmers (\bar{x} = 53.98) perceived AIC to be more effective compared to egg marketers (\bar{x} = 34.96). This could be due to the varying information needs of the two categories of respondents. While farmers need information on both production and marketing, marketers only require information on marketing alone. This may predispose the farmers to make use of the AIC more than the marketers.

Table 5: Distribution of responses on the perceived effectiveness of agricultural information channels in the marketing of poultry eggs (n =108)

Channels	Very effective	Effective	Not effective	Mean
Radio				
Provide research related information on market	26.9	56.5	16.7	1.10
Information on prevailing price	29.6	43.5	26.9	1.03
Information on location of market	41.7	36.1	22.2	1.19
Advertisement	45.4	39.8	14.8	1.31
Finance and credit facilities	20.4	50.9	28.7	0.94
Transportation	13.0	40.7	46.3	0.67
Information on seasonal change	23.1	26.9	50.0	0.90
Quality and quantity of egg	25.9	25.0	49.1	0.95
Television				
Provide research related information on market	37.0	27.8	35.2	1.02
Information on prevailing price	27.8	33.3	27.8	1.11
Information on location of market	31.5	43.5	25.0	1.06
Advertisement	47.2	30.6	22.2	1.25
Finance and credit facilities	28.7	41.7	42.6	0.99
Transportation	25.9	24.1	50.0	0.76
Information on seasonal change	23.1	26.9	50.0	0.73
Quality and quantity of egg	20.4	28.7	50.9	0.77
Newspaper				
Provide research related information on market	43.5	21.3	35.2	1.08
Information on prevailing price	23.1	35.2	41.7	0.81
Information on location of market	25.0	38.9	36.1	0.89
Advertisement	25.9	38.9	35.2	0.91
Finance and credit facilities	15.7	28.7	55.6	0.60
Transportation	15.7	28.7	52.8	0.69
Information on seasonal change	12.0	45.4	42.6	0.69
Quality and quantity of egg	20.4	28.7	50.9	0.69
Research institute				
Provide research related information on market	12.0	39.8	48.1	0.64
Information on prevailing price	14.8	36.1	49.1	0.66
Information on location of market	22.2	30.6	47.2	0.75
Advertisement	9.3	14.8	75.9	0.33
Finance and credit facilities	18.5	37.0	44.4	0.74
Transportation	10.2	31.5	58.3	0.52
Information on seasonal change	11.1	39.8	49.1	0.62
Quality and quantity of egg	46.3	13.0	40.7	1.06
Poultry farmers association				
Provide research related information on market	45.4	13.9	40.7	1.05
Information on prevailing price	30.6	25.0	44.4	0.86
Information on location of market	25.9	32.4	41.7	0.84
Advertisement	41.7	13.9	44.4	0.97
Finance and credit facilities	28.7	21.3	50.0	0.78
Transportation	25.0	32.4	42.6	0.82
Information on seasonal change	41.7	18.5	39.8	1.02
Quality and quantity of egg	38.9	23.1	38.0	1.00
Internet				
Provide research related information on market	37.0	18.5	44.4	0.93
Information on prevailing price	42.6	20.4	37.0	1.06
Information on location of market	38.0	23.1	38.9	0.99
Advertisement	24.1	17.6	58.3	0.66
Finance and credit facilities	24.1	31.5	44.4	0.80
Transportation	25.0	30.6	44.4	0.81
Information on seasonal change	25.0	27.8	47.2	0.78
Quality and quantity of egg	35.2	25.9	38.9	0.96
Extension agents				
Provide research related information on market	39.8	23.1	37.0	1.03
Information on prevailing price	36.1	26.9	37.0	0.99
Information on location of market	29.6	30.6	39.8	0.90
Advertisement	12.0	41.7	46.3	0.66
Finance and credit facilities	25.0	29.6	45.4	0.80
Transportation	29.6	21.3	49.1	0.81
Information on seasonal change	26.9	32.4	40.7	0.86
Quality and quantity of egg	36.1	21.3	42.6	0.94

Table 6: t-test of difference in perceived effectiveness of AIC on marketing of poultry eggs among poultry farmers and egg marketers

Variable	t-value	p-value	Mean	Decision
Poultry farmers	3.833	0.000	53.9815	S
Poultry egg marketers			34.9630	

CONCLUSION

Poultry farmers and marketers were exposed to various agricultural information channels in the study area. Among the channels, mobile phones, radio and television were more used by the respondents. The presence of extension agents was also reported but to a lesser extent in the study area. Meanwhile, inconsistent power supply was the major constraint to the use of the agricultural information channels. The channels were more effective for poultry farmers than the marketers. There should be sustained use of the preferred channels of agricultural information in the study area while extension agents should step up their activities to consolidate the gains realised from the other channels.

REFERENCES

Adewuyi, SA, Ayinde, IA, Ashaolu, OF, Lukman, G (2009). Determinants of demand and supply of egg in Kaiama local government area, Kwara state, Nigeria. Proceedings of the 23rd annual national conference of Farm management society of Nigeria 14-17 Dec. 2009, Pp. 595-599.

Alabi, R. A., and Osifo, A. A. (2004). Contributory role of animal production in National development. Proceedings of the 9th ASAN Conf. 13-16th Sept. Ebonyi State University, Abakaliki, Nigeria, 177-180.

Amos, T.T. (2006). Analysis of backyard poultry production in Ondo state, Nigeria. International journal of poultry science. 5(3): 247-250.

Falola, A. and Adewumi, M.O. (2013): Constraints to use of mobile telephony for agricultural production in Ondo state, Nigeria. Journal of research in forestry, wildlife and environment. 4(2): pg 58.

Munyua, H. (2000): Information and communication technologies for rural development and food security: Lessons from field experiences in developing countries. Retrieved from <http://www.fao.org/sd/cddirect/cdre0055b.htm>

Nazari, M.R. and Hasbullah, A.H. (2010): Radio as an educational media: Impact on agricultural development. The journal of the South East Asia research centre for communication and humanities. Vol. 2, 2010, pp. 13-20.

Sobalaje, A.J. and Adigun, G.O. (2013): Use of information and communication technologies (ICTs) by yam farmers in Boluwaduro local government area of Osun State, Nigeria. Journal of library philosophy and practice. Retrieved on 20th May, 2014 at 11.43am from <http://digitalcommons.unl.edu/libphilprac/1018/>