

EFFECT OF COMMUNICATION CHANNELS ON FISH FARMERS' LEVEL OF PRODUCTION IN EGBEDA LOCAL GOVERNMENT AREA OF OYO STATE

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Abstract: This project examines the effect of communication channels on fish farmers' level of production in Egbeda Local Government Area of Oyo state. A total sample of 90 respondents were randomly selected and interviewed using a well structured interview schedule that contains both close and open ended questions. Descriptive statistics such as frequency counts and percentage were used while the inferential statistic used to test for relationship between some selected variables was chi-square. It was concluded that the majority of the fish farmers were adult (40.4%), 74.4% were male and 64.4% were married. Also the statistical analysis performed on the effect of communication channel on production level reveals that there was significant relationship between respondents age and effect of communication channel on production level ($\chi^2 = 25.00$, $P < 0.05$). Moreover the results also show that pond size was not significantly related to effect of communication channel on level of production ($\chi^2 = 4.59$, $P > 0.05$). Further analysis shows that contact with extension agents was significantly related to effect of communication channels on fish farmers' production level ($\chi^2 = 14.21$, $P < 0.05$). However, it was observed that communication channels have contributed significantly to the level of production of the fish farmers, hence it was recommended that extension agents must be adequately trained to be able to disseminate proper message to the fish farmers using appropriate communication channels so that the farmers will be able to handle their problems effectively.

Keywords: Communication channels, Fish farmers, Level of production.

Introduction

In many part of the world, fish have provided an important part of people's diet for centuries. Fish is a major food items, it makes up between 25-29% of the supply of animal protein in local diets. In countries of the southern hemisphere the consumption is 9kg per person per year, a third of the developed countries level of 27kg per person per year (Allain, 1995). Apart from promoting the consumption of balance diet, fish plays an important role in the nation economy. It contributes an average of 334, 565 and 806 tonnes to the domestic production. About 50 million people are involved in small scale fisheries through catching (cropping), processing and marketing. About 150million people secured employment through

fish farming (Merlyn, 1996). Fish farming is becoming popular for two reasons, it provides a source of income rather than simple substances, and it can be incorporated into local agricultural system to diversify the production base. However, the growth of fish farming is still very poor thus making it difficult to recognize the major goal of fish farming in Nigeria which is to improve our local or domestic fish production and demand, and to reduce the importation of fish. Private individuals are still undertaking fish farming at subsistent level with few at commercial level. This could be linked to the lack of basic knowledge in science and the rudiments of fish farming in Nigeria which could be improved upon through communicating the right information to the fish farmers using the appropriate communication channels.

Balit *et al* (1996) reported that communication play a key role in a promoting rural development and food security in today's climate of social and economic change. Communication can stimulate people's awareness, give a voice to those involved and increases their participation in decision making and development activities. Communication media and techniques can help overcome barriers of literary, language, cultural difference and physical isolation. They are powerful tools to share information and knowledge and increase rural people's capabilities establishing a dialogue with people can empower them to make decisions for their own development. Communication can be used to increase participation, provide information for change and innovation and help in sharing of knowledge and skills. The effectiveness of the communication channel will determine the impact of development activities. The general objective of the study is to examine the effect of communication channels on fish farmers' level of production. Specifically, the objectives of the study are to; identify the socio-economic characteristics of the fish farmers in the study area, identify the various communication channels available to fish farmers in the study area, determine the channels of communication preferred by the respondents in the study area, identify respondents' sources(s) of information relating to fish farming in the study area and identify problems encountered by fish farmers in the use of available channels of communication preferred by the respondents in the study area. The study hypothesis states that there is no significant relationship between the socio-economic characteristics of the farmers and effect of communication channels on fish farmers' level of production.

Methodology

Study area

The study was carried out In Egbeda local governmet area in Ibadan, Oyo State. The local governments consists of the following villages; Olodo, Lagun, Iyana Church, Owobale, Erunmu, Osegere, Alakia, Jagun etc. It is bounded in the North by Lagelu local government area, in the South by Ona Ara local government area, in the east by Irewole local government area and on the west by Ibadan North East Local Government Area. It has an estimated population of 120,000 people. Egbeda Local government is regarded as a derived savannah zone and lowland forest area. There is a wide variability in the soil type in the zone but may be generally described as sandy loamy in nature. Major occupation of the people in this area is farming, both crop farming and livestock farming (fish farming inclusive). Other business association like Bode foam and coca-cola can also be found in this area. Major arable crops include vegetables, maize, cassava, yams and cash crops like cocoa and oil palm are also grown here. The population of the study consists of all fish farmers in Egbeda local government area of Oyo state consisting of both males and females. Egbeda local government is made up of eleven (11) wards. Six wards were purposively selected due to high concentration of fish farmers in the area. Fifteen respondents were randomly selected from each ward based on the list of the registered fish farmers provided by the extension agency hence a total 90 respondents constituted the sample size. Data for the research consist of primary and secondary data. The instrument for data collection consists of a well-structured interview schedule that contains both close-ended and open-ended questions.

Results and Discussion

Socio-economic characteristics of the respondents.

Respondents' sex

Data presented on table 1 reveals that 74.4% of the respondents are male while female respondents accounted for 25.6%. The reason for having highest number of male in fish farming activities may be other activities which the women were involved in, such as taking care of the homes, caring for the children and other domestics chores.

Marital status of the respondents

Data presented on table 1 shows that 18.9% of the respondents sampled were single, 64.4% of the respondents were married while 5.6% accounted for respondents that were divorced and 4.4% of the respondents were separated, the remaining 6.7% were widowed. Most of the

respondents in the study area are married and this implies that the family would provide more labour at the peak period of needs.

Religion of the respondents

It could be observed on the table 1 that 72.2% of the respondents are Christians while 24.5% are Muslim and the remaining 3.3% accounted for Traditional worshippers. This implies that fish farming or production is indiscriminate by religious affiliation.

Age of the respondents

Data on table 1 reveals that 6.7% of the respondents sampled are below 30 years of age, respondents between 30-39 years accounted for 20.0%, 40.0% are between the age ranges of 40-49, while 32.2% are found to be above 50 years of age and the remaining 1.1% gave no response to the question asked. This implies that most of the sampled respondents (20.0% and 40.0%) falls between the range of 30-47 years and are still agile. The involvement of the rural households in fish farming has led to increase level of production due to the strength associated with their age.

Educational status of the respondents

Data presented on table 1 shows that only 12.2% of the respondents had no formal education while 7.8% attended adult literacy class and 8.8% of the respondents had primary education. Similarly, 10.0% had completed secondary education while majority of them (61.2%) had tertiary education. It could be seen that there is a reduced level of illiteracy among the respondents which may have positively influence their innovativeness, thus bringing about increase in income of the respondents. It has also help in adoption and effectiveness of the management practices.

Membership of social organization of the respondents

It could be seen on table 1 that majority (72.2%) of the respondent belong to one social organization or the other while the remaining indicated that they do not belong to any social organization. This implies that majority of the respondents are members of one social organization which has made positive impact on their production level as in the provision of credit, information and other inputs.

Primary Occupation of the respondents

Data presented on table 1 reveals that 33.3% of the respondents are crop farmers, 16.7% are teachers, 81.9% are civil servants while 11.1% are fish farmers and the remaining 30.0% are into other or difference primary occupations. This implies that crop farmers abound in the study area which may bring about sufficiency of agricultural products.

Years of fish farming experience of the respondents

Table 1 reveals that 34.4% of the sampled respondents have less than 5 years experience in fish farming, 28.9% have between 5 to 10 years of experience, 5.6% accounted for those that have experience of between 1 to 15 years while 31.1% of the respondents have experience of more than 16 years in fish farming. This implies that a larger proportion respondent with little experience in fish farming may be confronted with difficulties

Pond size (ha) of the respondents

Data presented on table 1 indicates that 35.6% of the respondents has a pond of less than 1ha, 36.7% has a pond of between 1 to 2 ha, 7.8% has a pond of between 3 to 4ha, while 3.3% of the respondents has a pond of above 5ha and remaining 16.6% gave no response to the question asked. This implies that respondents utilizing less than 1ha of pond size may not have sufficient fish production and are those having less than 5 years experience.

Labour type utilized by the respondents

Data on table 1 shows that 8.9% utilized their family as source of labour, 77.8% utilized hired labour while only 11.1% of the respondents utilized both family and hired labour and the remaining 2.2% utilized other means of labour. This implies that majority of the fish farmers engage in the use of hired labour on their pond which has made fish farming easier and improve their level of production and providing income for other set of people (labourers).

Sources of funds of the respondents

Data presented on table 1 indicates that 2.2% source for funds from friends, 5.6% obtained funds from money lenders, 31.1% from cooperative society and 12.2% source for funds from commercial banks, 15.6% of the respondents obtained funds from other sources. 5.6% source for funds from agricultural banks and remaining 27.7% from combination of the sources. This implies that irrespective of the respondents' sources of fund, they were able to get fund of the needed period to finance their fish farming operations.

Income of respondents after each cropping season

Data on table 1 reveals that 14.4% earn less than N100,000, 7.8% earn between N100,000-N300,000 after each cropping season, 4.4% earn between N400,000 –N600,000. 26.7% of the respondents earn above N600, 000 and the remaining 46.7% gave no response to the question asked. This implies that the fish farming has been profitable and it is determined or associated with the size of pond (ha).

Respondents' contact with extension agents

Data presented on table 1 shows that 62.2% of the respondents sampled have contact with extension agents while 35.6 have no contact with extension agents and the remaining 2.2% gave no response to the question asked. This indicates that most of the respondents in the study areas have access to extension agents though the duration of visit may differ thus this have improved their level of production based on the information and supervision provided.

Respondents' access to available communication channel (s)

Data presented on table 2 reveals that 91.1% of the respondents have access to communication channel(s) while the remaining 8.9% of the sampled respondents does not have access to communication channel(s) showing that majority of the respondents have access to information on fish farming which enables their workload to be easier and has broaden their understanding leading to improvement in their production level.

Availability of the communication channels

Data on table 2 reveals that radio and television, extension publications / bulletins and Internet/E-mail facilities were not available in the study area. About 4.4% have access to telephone telephone (fixed or mobile), 1.1% have access to extension agents. Majority (84.5%) of the sampled respondents have combination of various communication channels available in their locality, 1.1% have access to other channels and the remaining 8.9% gave no response to the question asked. This implies that majority (84.5%), of the respondents have access to different communication channels in the locality which will enable them to have access to relevant information relating to fish farming, thus leading to increase in their production level.

Preference of communication channels by the respondents

Data on table 3 shows that 8.9% of the sampled respondents preferred radio, 1.1% preferred television, 31.1% preferred telephone and 2.2% preferred extension publication or bulletin or journals. 4.4% preferred internets or e-mail, 5.6% preferred extension agents, 11.1% of the sampled respondents preferred other channels while 24.4% preferred combination of different channels and 1.1% preferred all the available communications channels. The remaining 10.0% gave no response to the question asked. This implies that (90%) of the sampled respondents preferred different communication channels which may be due to their knowledge of use of such channels has increase their level of production.

Effect of communication channels on respondents' level production

Data presented on table 4 reveals that 40.0% of the respondents indicated that the available communication channels have high impact on their level of production while 16.7% have moderate impact, 6.7% have low impact. The remaining 36.6% of the sampled respondents gave no response to the question asked. This implies that the available communication channels have various impacts on the respondents' production level but at different degree which will also indicate their income level.

Constraints faced by the respondents

Table 5 reveals that 7.8% are encountering attendance constraints while 20.0% network problems and 10% lack of electricity. Also 3.3% are encountering cost constraints while 2.2% time factor constraints and 7.8% are encountering other constraints. Similarly, 11.1% of the sampled respondents gave no response to the question asked while the remaining 37.8% encountered various constraints in the course of their fish farming activities which may invariably increase the search for more information through all the various communication channels.

Hypotheses testing

H₀₁: There is no significantly relationship between the socio-economic characteristics of the farmers and the impact of communication channels on fish farmers level of production.

As shown on table 26 below analysis performed on some selected socio economic characteristics, sex ($x^2_{cal} = 3.02$); marital status ($x^2_{cal} = 8.54$); Religion ($x^2_{cal} = 6.82$); Primary occupation ($x^2_{cal} = 7.58$); pond size ($x^2_{cal} = 4.59$) and labour type ($x^2 = 3.78$) and impact of communication channels shows that there was no significant relationship between the variables while age ($x^2_{cal} = 25.00$); Educational level ($x^2_{cal} = 28.08$); Membership of social organization ($x^2_{cal} = 10.22$); farming experience ($x^2_{cal} = 20.08$) income ($x^2_{cal} = 22.05$) and contact with extension agents ($x^2_{cal} = 14.21$) have significant relationship with impact of communication channels. This implies that age, level of education, membership of social organization and farming experience have positive influence on communication channels.

Recommendations

Based on the findings of this study the following recommendations would go a long way to improve the impact of communication channels on fish farmers' level of production.

1. Young and dynamic literate people who though might not be farmers should be encouraged to participate in fish production so as to improve fish productivity and fish

farming should be made attractive to them by making them to understand what they stand to gain by through involvement in fish farming.

2. Fish farmers should be provided with adequate access to suitable communication channels through which they will broaden their knowledge of fish farming

3. Extension agents could make their visit more frequent or regular to fish farmers. He must be adequately trained to handle farmers' problems. Also, their visit should not be concentrated evenly around the locality.

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Appendix

Table 1: Socioeconomic characteristics of the respondents. (n=90)

Characteristics	Frequency	Percentage (%)
Sex		
Male	67	74.4
Female	23	25.6
Marital status		
Single	17	18.9
Married	58	64.4
Divorced	05	5.6
Separated	04	4.4
Widowed	06	6.7
Religion		
Christianity	65	72.2%
Islam	22	24.5
Traditional	03	3.3
Age (years)		
<30	06	6.7
30-49	18	20.0
40-49	36	40.0
>50	29	32.2
No response	01	1.1
Educational status		
No formal education	11	12.2
Adult literacy	07	7.8

Primary education	08	8.8
Secondary education	09	10.0
Tertiary education	55	61.2

Membership of social organization

Yes	65	72.2
No	25	27.8

Primary occupation

Crop farming	30	33.3
Teaching	15	16.7
Civil servant	08	8.9
Fish farming	10	11.1
Others`	27	30.0

Farmingexperience(years)

<5	31	34.4
5-10	26	28.9
11-15	05	5.6
>16	28	31.1

Pond size (ha)

<1	32	35.6
1-2	33	36.7
3-4	07	7.8
>5	03	3.3
No response	15	16.6

Labour type

Family	08	8.9
Hired	70	77.8
Both	10	11.1
Others`	02	2.2

Source of fund		
Friends	02	2.2
Money lenders	05	5.6
Cooperative society	28	31.1
Commercial banks	11	12.2
Agricultural banks	05	5.6
Others`	14	15.6
Combination	25	27.7
Contact with extension agents		
Yes	56	62.2
No	32	35.6
No response	02	2.2
➤		
Income after cropping season (N,000)		
<100	13	14.4
100-300	07	7.8
400-600	04	4.4
>600	24	26.7
No response	42	46.7

Source: Field survey, 2019.

Table 2: Distribution of respondents by availability of communication channel(s)(n=90)

Access to communication channel(s)	Frequency	Percentage (%)
Yes	82	91.1
No	08	8.9
Available channels		
Radio	00	0.0
Television	00	0.0
Telephone (fixed/mobile)	04	4.4
Extension publications or bulletins	00	0.0
Internets/e-mail	00	0.0
Extension agents	01	1.1
Combinations	76	84.5

Others	01	1.1
No response	08	8.9

Source: Field survey, 2019.

Table 3: Distribution of respondents by preference to communication channel(s)

Channels preferred	Frequency	Percentage (%)
Radio	08	8.9
Television	01	1.1
Telephone	28	31.1
Extension publication / journals/ bulletin	02	2.2
Internet/e-mail	04	4.4
Extension agents	05	5.6
Others `	10	11.1
Combinations	22	24.4
All of the above	01	1.1
No response	09	10.0
Total	90	100.0

Source: Field survey, 2019.

Table 4: Distribution of respondents by effect of communication channels

Effect	Frequency	Percentage (%)
High	36	40.0
Moderate	15	16.7
Low	06	6.7
No response	33	36.6
Total	90	100.0

Source: Field survey, 2019.

Table5: Distribution of respondents by constraints faced

Constraints	Frequency	Percentage (%)
Attendance problems	07	7.8
Network problems	18	20.0

Lack of electricity	09	10.0
Cost	03	3.3
Time factor	02	2.2
Others	07	7.8
No response	10	11.1
Combinations	34	37.8
Total	90	100.0

Source: Field survey, 2019.

Table 6: Relationship between respondents' socio-economic characteristics and impact of communication channels on production level

Socio-economic characteristics	X ² cal	df	Decision
Sex	3.02	3	NS
Marital status	8.54	12	NS
Religion	6.82	06	NS
Age	25.00	12	S
Educational level	28.08	12	S
Membership social organization	10.22	3	S
Primary occupation	7.58	12	NS
Farming experience	20.08	9	S
Pond size	4.59	12	NS
Income	22.05	12	S
Contact with extension agent	14.21	6	S
Labour type	3.78	9	NS

L_s=0.05