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COMPARATIVE ANALYSIS OF THE PARTICIPATION AND CHALLENGES OF WOMEN IN MODERN POULTRY AND PIGGERY MANAGEMENT SYSTEMS IN ABIA STATE, NIGERIA

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ABSTRACT

The broad objective of the study was to carry out a comparative analysis of the participation and challenges of women in modern poultry and piggery management systems in Abia state. Primary data were used for the study. The data were collected via the administration of a well-structured questionnaire. Multi stage random sampling method was employed in eliciting data from the respondents. A sample size of 90 women comprising 45 women in modern poultry and piggery management systems were studied. Data obtained for the study were analyzed using descriptive statistics. The findings showed that majority (71.1%) of the poultry farmers were 44 years and majority (55.6%) of pig farmers were54 years old in the study area. The mean age was 42.6 years and 47.7 years for the female poultry and pig farmers respectively. Most (77.6% and 75.6%) of poultry and piggery farmers respectively were married. Majority (66.1% and 60%) percent of the farmers had household sizes ranging from four (4) to six (6) persons. The mean household size was 6 and 5 persons for poultry and piggery farmers respectively. The mean years of management experience was 8 years for poultry and piggery production systems respectively. The significant activities participated in by both poultry and pig farmers and their mean ratings were as follows: planning of activities (3.4); compounding of poultry/piggery feed (3.5); stocking of breeds (3.0); changing of litter fortnightly (3.6); administration of drugs and medications (with grand mean score of 3.5); feeding of birds /pigs (3.5);and sanitation of the farm environment daily or weekly (3.7).The study ascertained that poultry and piggery management in the study area were encumbered with problems of low market prices for broilers and piglets, scarcity of quality feeds, high cost of labour, high cost of feed and theft, high cost of drugs or medication, high cost of improved breeding stocks, high rent for land, poor government policies towards broiler or piggery management, inadequate loan/credit. The study recommended broad based government intervention programme such as policy decisions that enhance market forces to stabilize market prices, provision of readily available drugs and medications, credit provision at low interest rates and good land laws to make land accessible and affordable the farmers.

Key words: Participation, women, modern, poultry, piggery, management

INTRODUCTION

The importance of Pig and poultry management with the attendant benefits cannot be neglected in a food security deficient economy like Nigeria. Pigs have a high survival rate and also have the ability to utilize a host of agro industrial by-products and crop residues with little or no processing and at minimal cost (Termaulen, 2007). Similarly, the importance of the poultry management cannot be over-emphasized as the industry has been described as the fastest means of bridging the protein deficiency gap prevailing in Nigeria, (Oso, 2002). Akpabio *et al* (2007), stressed that the relevance of poultry and piggery enterprise can be derived from the fact that they partially or fully sustains the livelihood of about 675 million of the rural and urban poor across the globe. In Nigeria, production of poultry occupies the prime position for improving animal protein consumption for both rural and urban households (Alabi and Aruna, 2008). But, this attendant opportunity is dependent on both internal and external factors. It had been shown that many people that participated in initial start-up phases of piggery agribusiness lacked sustaining capabilities and as such had lost proficiency. Some operators folded up perhaps due to poor managerial expertise, inadequate skill, finance, business instabilities and environmental challenges, (Onwumere *et al.*, 2012 and

Onwumere, 2008). The performance of most piggery and poultry enterprises have been reported to be on the decreasing side, a problem that might basically be because of low quality inputs and high input prices (Adesehinwa and Ogunmodede, 1995).

There is a growing concern on gender imbalance in many sectors of the economy around the world. The farm sector is not left out. Gender participation especially the female folk has attracted attention in management of piggery and poultry enterprises respectively. These animal husbandry enterprises have potential to bring about economic development and growth. There have been recognized necessities for their rapid expansion given the enterprises potential to contribute to state and national development with respect to employment creation and income generation. At the present, it has also become necessary to single out women performances from among other entrepreneurs. Since women has been proved as good managers, the need is obvious as most agribusiness is being managed by women despite poor incentives received, yet, their contributions seem imperceptible, may be because of gender undertones. Many agribusiness extension activities relegate women entrepreneurs and investors to the background in favour of men investors (Saudoulet and Janvry, 1995). More so, without, due consultation of accurate statistics men are attributed as actual entrepreneurs and that women only play a supportive role. There is call for proper documentation of gender roles as it appears that there is a continual change in men's social roles and responsibilities. This appraisal will enable development of intervention agencies to target the right beneficiaries when production incentives and resources are made available to relevant investors.

Irrespective of the gender that manages poultry and piggery investment in Nigeria, majority of the enterprises still appear rudimentary. There are preponderances of small scale poultry keeping involving the raising of birds by households using family labour and locally available farm resources (Sonaiya, 2005). Small scale poultry in Nigeria operates under low output, and also using extensive management system (Sonaiya, 2005). It is one of a number of integrated complementary farming activities contributing to the overall well-being of the household and that of the economy when widely commercialized. Enterprises such as piggeries and poultries can be found everywhere in our society. The survival and continuous growth of these enterprises are the function of its production and earning capabilities (Onwumere, 2008). The widely acclaimed fact that massive attention and support are given to development of small scale enterprise is because of their potential as major sources of employment with great capacity to generate earnings. According to Oi and Idson (1999), the earnings from these enterprises can sustain economic development in most developing economics like Nigeria. The emphasis on the economic development is due to increased earnings that results from combination of factors of production, increase in size or number of small scale enterprises and technical know-how which enhances performance.

The participation of women is of note especially in the global food value chains under small scale enterprises. For instance, females are always employed more than males to serve as cooks, attendants, cashiers and so on. Women have been found efficient in many employment sectors, some small scale business marketing companies adopt women biased gender employment to favour them. According to Oi and Idson (1999), women in no doubt have performed well in any chosen agribusiness activities. In Nigeria, enormous piggeries exist in villages and towns which are made up of few breeding stock and piglets which are mostly indigenous breeds in which case disease occurrences hardly lead to consultation with veterinary practitioners (Osayemi 1993). The demand for pork in Abia State has remained higher than supply as most shops that deal on processed pork are always running short of supply due to excess demand. Inadequate supply of feed has been one of the problems militating against pig production in Nigeria due to high cost of feed ingredients (Ngoka, 1979). With a substantial increase in production of poultry birds and pigs to meet the growing demands in both meats and eggs this study therefore investigated the comparative analysis of the participation and challenges of women in modern poultry and piggery management system in Abia State.

The specific objectives of this study included examination of the socio-demographic characteristics of women in modern poultry and piggery management in Abia State; ascertaining the areas of women participation and the extent of participation in poultry and piggery management; ascertaining the challenges facing the performance of the women in poultry and piggery management in the area.

METHODOLOGY

The study location for this research work is Abia State, Nigeria. Abia State was created on August 27, 1991.Abia State has a landmass of 700km^2 with seventeen Local Government Areas. Abia State consists of three Agricultural zones namely Aba, Ohafia and Umuahia. The State lies between Longitudes 7^o 23^1 and 8^0 02^1 East of Greenwich meridian and Latitudes 5^o 49^1 and 6^o 12^1 North of the equator. Abia State is bounded on the east by the Cross River and AkwaIbom Sates, on the north by Ebonyi and Enugu States, on the West by Imo State and on the South by Rivers State. The State has a population of 2,833,999 million people, according to National Population Commission, estimate of 2006. Major occupation of the people is farming. The major food crops grown in the state are cassava, yam, melon, vegetable, three-leaf yam and cowpea. Some important cash crops grown in the state include oil palm and cocoa, while animals reared are goats, sheep, pigs and poultry.

Multi stage sampling was employed for the study. The State has seventeen (17) Local Government Areas (LGAs)and is divided into three Agricultural Zones and. Each of the agricultural zones has six Local Government Areas. Two LGAs were randomly selected from each zone, three agricultural communities were also randomly selected from each of the LGAs. Three villages were randomly selected from each community (making a total of nine villages) and five poultry and piggery managers (making a total of 10 respondents from each village) were randomly selected from each village making it ninety (90) respondents in all. Data for this study were primary data. The data were obtained through administration of a well-structured questionnaire.

Data obtained for the study were analyzed using descriptive and inferential statistics suchas mean score, mean, frequency, percentage and ranking. For the inferential statistics a four (4) points Likert scale measurement approach was adopted to capture the extent of participation as follows:

Very High participation = 3

Moderate participation = 2

Low participation = 1

No participation = 0

Decision Rule: This was achieved using the statements bordering on the participation in modern poultry and piggery management systems. The accepted mean score was one with overall mean score of > 3.00. The implication is that the statement is accepted and that means active participation. A rejected mean score is one that isless than 3.00. The implication is that the statement is rejected and that means inactive participation.

RESULTS AND DISCUSSION

Socioeconomic Characteristics of the Respondent

The socioeconomic characteristics of the women engaged in modern poultry and piggery management include those of age, marital status, household size, level of education, management experience, membership of cooperative society, management practice, veterinary visits, size of farm, annual income, amount of credit received, source of funds were analyzed using descriptive statistics; the result is presented in Table1,

Table 1: Distribution of female poultry and piggery farmers based on their socioeconomic characteristics

Socioeconomics characteristics	Poultry		Piggery	
	Frequency	%	Frequency	%
Age (Years)				
25-34	5	11.1	7	15.6
35-44	32	71.1	8	17.8
45-54	4	8.9	25	55.6
55-64	3	6 .7	4	8.9
65-74	1	2.2	1	2.2
Total	45	100	45	100
Mean	42.6		47.7	
Marital status				
Married	35	77.8	34	75.6
Single	5	11.1	3	6.7
Widowed	3	6.7	8	17.3
Separated	2	4.4	-	-
Total	45	100	45	100
Household size				
1-3	3	5.0	7	15.6
4-6	30	66.7	27	60.0
7-9	10	22.2	7	15.6
10-12	2	4.4	4	8.9
Total	45	100	45	100
Mean	6		5	
Level of education				
No schooling	2	4.4	2	4.4
Primary	15	33.3	14	31.1
Secondary	23	51.1	28	62.2
Tertiary	5	11.1	1	2.2
Total	45	100	45	100
Management experience				
1 – 9	20	44.4	35	77.8
10-19	15	33.3	5	11.1
20-29	5	11.1	4	8.9
30-39	2	4.4	1	2.2
40-49	2	4.4	0	-
40-59	1	2.2	0	-
Total	45	100	45	100
Mean	8.19		8	
Membership of cooperative society				
Members	15	33.3	10	22.2
Non-members	30	66.7	35	77.8
Total	45	100	45	100
Management practice				
Intensive	30	66.7	43	95.6
Extensive	11	24.4	2	4.4
Combination of both	4	8.9	-	-
Total	45	100	45	100
Veterinary visits				
Visits	30	66.7	40	88.9
Non-visits	15	33.3	5	11.1
Total	45	100	45	100
Size of farm				
Small scale	33	73.3	40	88.9
Medium	10	22.2	5	11.1
Large	2	4.4	-	
Total	45	100	45	100
Annual income (in Naira)				
1 – 100000	40	88.9	5	11.1
101000-400000	3	6.7	40	88.9
401000-700000	1	2.2	0	-
701000-1000000	1	2.2	0	-
Total	45	100	45	100
Mean	₦ 60,600		₦142,000	
Amount of credit received				
0 – 200000	40	88.9	42	93.3
201000-449000	5	11.1	3	6.7
Total	45	100	45	100
Mean	₦ 68,000		₦ 76,000	
Sources of credit				
Formal financial institution	5	11.1	5	11.1
Informal	15	33.3	5	11.1
Personal savings	25	55.6	35	77.8
Total	45	100	45	100

Source: Field survey, 2016

As shown in Table 1 above, majority (71.1%) of the female poultry farmers were at most 44 years and (55/6%) of female pig farmer in the study area were at most 54 years old. The modal age group was however 45-54 years for the female pig farmers. The mean age was 42.6 years and 47.7 years for the female poultry and pig farmers respectively. This result implies that most of the respondents are still in their active working years and should be able to undertake the strenuous task of poultry and piggery farm management. This finding was corroborated by Nwaru, (2004). The respondents are by their fairly youthful ages therefore better positioned to go about their activities with much ease. This result agrees with Ironkwe (2011) who reported younger ages for female farmers in the Southeast agro-ecological zone.

Many (77.6% and 75.6%) of female poultry and piggery farmers were married. A married person is expected to behave more responsibly and undertake his economic activities with a greater sense of purpose. For the female farmers, marriage also confers on them the right to use farmland belonging to their husbands as well as expand their poultry and pig farms on such land. Adaigho *et al. (*,2009) cited in Ibeagwa (2011) posited that marriage confers some amount of stability on the individual and household and puts them in a better position to practice their occupation. A married person also has the advantage of having members of the household assist in the farming activities. This result agrees with Onunka (2011) who reported similar results for African egg-plant producers in Imo State and Abia State respectively. Also, many (66.1% and 60%) of females had household sizes of at most six (6) persons. The modal household size was 4-6 persons. The mean household size was about 6 and 5 persons for female poultry and piggery farmers respectively. The fairly large household size may have positive implication for these women in terms of more hands to assist in the production activities and thus reducing the amount spent on hired labour. Nwaru (2004) and Iheke (2010) both noted that most rural farming households depend on their family members to provide labour on the farm. This result agrees with Ibeagwa(2011) and Okpara (2012) who also reported mean household size of 6 persons for Farm households in Imo State and for fish marketers in Ebonyi State respectively.

This study observed that the female pig farmers were more educated than female poultry farmers in the study area. For the female poultry farmers, majority (51.1%) had at most secondary school education, while for the female's pig farmers; about 62.2 percent had at least secondary education. Ibeagwa (2011) and Ogbe (2009) reckoned that educated individuals and households are better positioned to take advantage of new techniques and technologies that could lead to increased agricultural output. Also educated individuals are better positioned to utilize their resources optimally. The result in Table 1 shows that the mean years of management experience was 8 years for both females in poultry and piggery productions respectively. While the modal years were 1-9 years for females studied in the area. The years of experience is an indication of how well the individual has been able to understand the intricacies of the business he or she is involved in and be in position to bring to bear this experience in making important business decisions. Nwaru (2004) noted that the number of years a farmer has spent in the farming business may give an indication of practical knowledge he has acquired on how he could overcome certain inherent farm production challenges. Table 1 further shows that majorities (66.7% and 77%) of the respondents were nonmembers of cooperative society. The non-involvement of more women in cooperative activities may be attributed to their inability to access basic information on the benefits of been members of a cooperative society. Thus, the women are disfranchised if not involved cooperative membership and this is a therefore a disincentive towards.

The result indicated further, that most of the female poultry and piggery farmers adopted the intensive method of farm management. About (68.7%) of poultry and (95.6%) of pig respondents operated under the intensive management system. Intensive system of poultry or piggery management ensures that optimum care is given to the animals which are expected to reduce mortality rate among the animals and translate to a higher output. However, intensive system of management of livestock (poultry and piggery) may be cost intensive. Majorities (66.7% and 88.9%) percent of both poultry and pig female farmers respectively accessed veterinary medications, while majority (73.3% and 88.9%) of female poultry and pig farmers respectively fell into small scaled poultry and pig farming category. The large number of respondents who are small scale farmers may be attributed to the limited capital available to the farmers which might not be enough to transform them into commercial farm owners. The size of the farm determines the number of poultry animals and pig products that can be produced from the farm.

The study also shows that majority (88.9%) of poultry farmers earned annual income of not more than ₦100, 000 from their poultry enterprise. The mean annual income from poultry enterprise in the study area was ₦60, 600. While most (88.9%) of pig farmers earned a mean income of ₦142,000. This implies that women into piggery management earn more income annual than women into poultry management. The income earned by women into poultry management is grossly inadequate. The amount of credit the respondents accessed for their production activities was also analyzed.

The result also shows that majority (88.9% and 93.3%) of females got credit worth ₦200,000. The mean amounts of credit accessed by female poultry and pig farmers were₦68000 and ₦72000 respectively. This result also indicates the very low amount of credit these farmers were able to access. The low credit available to them is detrimental to the farming activities of poultry and pig farmers since the credit could serve as means of expanding their business. The results on sources of credit showed that majority (55.6% and 77.8%) of the farmers financed their business through their personal savings.

Participation of women in modern poultry and piggery management systems

The distribution of the mean score responses of the respondent by their participation in modern poultry and piggery management systems is presented in Table 2

Table 2: Mean response of the respondent based on their participation in modern poultry and piggery management systems

Variables	$\overline{X_1}$	$\overline{X_2}$	$\overline{X_G}$	Standard Deviation	Remark
Involvement in planning or managerial activities	3.60	3.20	3.4	0.28	Accepted
Compounding of poultry/piggery feed	3.70	3.21	3.5	0.35	Accepted
Attend group meetings	2.50	2.80	2.7	0.21	Rejected
Attend farmers training sessions	2.70	2.90	2.8	0.14	Rejected
Attend credit Assessment seminars	2.60	2.80	2.7	0.14	Rejected
Building of animal farm houses	2.80	2.90	2.9	0.07	Rejected
Participation in Farmers training, exchange of views/ideas at meetings.	2.70	2.50	2.6	0.14	Rejected
Stocking of breeds	2.80	3.20	3.0	0.28	Accepted
Changing of litter fortnightly	3.40	3.70	3.6	0.21	Accepted
Administration of drugs and medications	3.30	3.60	3.5	0.21	Accepted
Feeding of birds /pigs	3.50	3.20	3.4	0.21	Accepted
Sanitation of the farm environment daily or weekly	3.70	3.70	3.7	0.00	Accepted
Marketing	3.70	4.20	4.0	0.35	Accepted
Processing	2.89	2.23	2.6	0.47	Rejected
Cleaning of pens	3.10	2.50	2.8	0.42	Rejected
Daily supervision of the farm	4.20	4.60	4.4	0.28	Accepted
Daily inspection of the birds/pigs	3.70	4.70	4.2	0.71	Accepted
Calling for veterinary services	3.90	4.80	4.4	0.64	Accepted
Overall Mean	3.27	3.37	3.3	0.28	Accepted
Number of respondents	45	45	90		
Decision rule mean score	3.00	3.00	3.00		

Source: Field Survey data, 2016

Key: $\overline{X_1}$ = Mean female participation in modern poultry management system, $\overline{X_2}$ = Mean female participation in modern pig management system,

$\overline{X_G}$ = Grand total

The result in Table 2 showed that the women responded positively on the statements bordering on the participation in modern poultry and pig management system with overall mean score of> 3.00. This implies that the women engaged in both poultry and pig enterprises had similar participations in the modern poultry and pig management systems. The women participated in

both poultry and piggery planning of activities (such as decision making, supervision and mentoring) with a grand mean score of 3.4; The farmers participated actively in compounding of poultry/piggery feed (grand mean score of 3.5); stocking of breeds (grand mean score of 3.0);changing of litter fortnightly (grand mean score of 3.6); administration of drugs and medications (with grand mean score of 3.5); feeding of birds /pigs (with grand mean score of 3.5); sanitation of the farm environment daily or weekly (with grand mean score of 3.7); marketing(with grand mean score of 4.0); daily supervision of the farm (with grand mean score of 4.4); daily inspection of the birds/pigs(with grand mean score of 4.2); and calling for veterinary services (grand mean score of 4.4).

The results on participation of women in modern poultry and piggery management systems as presented in Table 2. The analyses showed that in poultry and piggery enterprises, the mean score participation of women were >3.0 in eleven statements out of eighteen bordering on how they participated in the various management systems. Poor (<3.00) participation was recorded in seven out of eighteen questions bordering on women's participation in modern poultry and piggery management systems. This implies that the women in both poultry and piggery enterprises had similar poor participation on the modern poultry and piggery management.

Challenges that Militate against Performance of Women in Poultry and Piggery Management

The distribution of the challenges that militate against the performance of women in poultry and piggery management system study area is presented in Table 3.

Table 3: Problems that militate against performance of Women in Poultry and Piggery Management

Constraints	Poultry management			Piggery management		
	Freq.	%	Rank	Freq.	%	Rank
High cost of feed	34	75.6	3rd	29	64.4	6th
High cost of drugs or medication rearing	33	73.3	4th	27	60.0	7th
High cost of labour	35	77.8	2nd	36	80.0	2nd
High cost of improved breeding stocks	28	62.2	5th	35	77.8	3rd
Rodent/disease attack	19	42.2	11th	22	48.9	11th
Lack of managerial skills	23	51.1	8th	24	53.3	9th
Low price of broiler or piggery in the market	38	84.4	1st	37	82.2	1st
Lack of loan/credit	27	60.0	6th	30	66.7	5th
High cost of land rent	28	62.2	5th	33	73.3	4th
Poor market for broiler due bird flu syndrome	21	46.7	9th	23	51.1	10th
Irregular veterinary visit	20	44.4	10th	25	55.6	8th
Adverse climatic changes	5	11.1	12th	22	48.9	10th
Broiler or piggery price fluctuation	25	55.6	7th	8	17.8	12th
Theft	34	75.6	3rd	22	48.9	10th
Lack of government policies to broiler or piggery farms	28	62.2	5th	35	77.8	3rd
Lack of government policies to broiler or piggery farms	19	42.2	11th	22	48.9	11th
Poor re-training in production business	23	51.1	8th	24	53.3	9th
Scarcity of quality feeds and medication	38	84.4	1st	37	82.2	1st

Source: Field survey data,2016

The result in Table 3 showed the ranking of most identified problems faced by women in poultry Management in the study area. The first four and the last problems in descending ranking are presented as follows: low price of broiler or piggery in the market and scarcity of quality feeds and medication (84.4%) ranked 1st; high cost of labour (77.8%) ranked 2nd; high cost of feed and Theft (75.6%) ranked 3rdHigh cost of drugs or medication rearing (73.3%) ranked 4th; and the last items are adverse climate changes for poultry (11.1%) and pig price fluctuations (17.8%) respectively with ranking of 12th. The implication is that the performances of poultry and piggery management systems are still under the threat of these numerous and cannot fair better except the problems are ameliorated.

CONCLUSION AND RECOMMENDATION

The findings of this study showed that women participated actively in such activities as planning of activities farm, compounding of

poultry/piggery feed, stocking of breeds, changing of litter fortnightly, administration of drugs and medications, feeding of birds /pigs, sanitation of the farm environment daily or weekly, marketing of produce, daily supervision of the farm, daily inspection of the birds/pigs and calling for veterinary services. The performances of poultry and piggery farmers was found to be limited by low price of broiler in the market, scarcity of quality feeds and medication, high cost of labour, high cost of feed and theft, high cost of drugs and medication cost, high cost of improved breeding stocks, high cost of land rent, lack of government policies to broiler or piggery farms, inadequate loan/credit. The study recommends that government intervention programme should be introduced in order to encourage more women to participate in both pig and poultry farms. Policies such as Urban Agriculture Policy, Empowerment Policy, Land Reform Policy, Employment Generation in Agriculture etc. which help to alleviate poverty among households by increasing their income and improving their working conditions will be enhance the participation of the farmers in poultry and piggery management and encourage their performances.

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