



FACTORS ASSOCIATED WITH GROUP COHESION AMONG BEEKEEPERS IN OYO STATE, NIGERIA

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ABSTRACT

The success of the participatory approach to extension in Nigeria is threatened by poor willingness among farmers to sustain active membership of groups particularly in the absence of ongoing developmental projects on which to converge. The objectives of the study were to identify beekeepers' reasons for association membership; ascertain the level of satisfaction of members; assess the level of group cohesion, and identify the constraints to cohesion. A two-stage random sampling technique was used to select 151 respondents across beekeepers' associations in the state. Data were obtained through a structured questionnaire. Descriptive statistics and the Pearson's Product Moment Correlation were used to analyse data collected. The results revealed that all the beekeepers' associations were not limited by size, membership was open, and the average membership size was 31. Opportunity to share information was the most important reason why beekeepers joined the associations (Mean Score=3.46). The study concluded that though membership satisfaction was low (Mean score =2.59), the level of cohesion was fair (Means Score=3.61). Members' satisfaction, mode of group formation and age of the associations significantly influenced group cohesion at $p < 0.01$. The study recommended that the moderate level of cohesion could be improved through training of members on group dynamics.

Keywords: Group cohesion, Membership satisfaction and Beekeepers

INTRODUCTION

Apiculture is an age-long cottage industry involving the maintenance of bee colonies for the production of honey and bee wax. It is an aspect of agriculture which though neglected in Nigeria provides means of livelihood for a considerable proportion of rural dwellers. With its ancient roots in the Middle-East, apiculture has evolved over the years, into a modern commercial agricultural activity. Honey is a sweet, viscous, golden substance produced by bees from the nectar of flowering plants. It is food for man (often used as a healthier alternative to sugar). Aside from its prominence in traditional health care, honey is widely used as raw material in breweries, pharmaceuticals, cosmetics industries etc.

Honey production has been identified in many parts of the world as one of the most lucrative enterprises. In the United States, for example, about 109,799,366.60kg of honey worth \$24,200,000.00 is produced each year (Famuyide et al. 2004). Ethiopia is the ninth highest producer of honey in the world and the largest producer and exporter of honey and bee wax in Africa producing 44,000 tons' valued at \$76.6M (Canadian statistics, 2003).. This statistics shows that beekeeping is a primary source of revenue and foreign exchange. In Nigeria, annual honey production is estimated at over 2000 tons, while the price ranges from N100,000 (\$278) to N200,000 (\$566) per ton (Folayan and Bifarin, 2013). The demand for honey is far above the supply in most parts of Nigeria (Oyo State inclusive), and this has resulted in wide adulteration. Production levels and Earnings can be increased with improved beekeeping practices and marketing in Nigeria.

As with other aspects of agriculture in Nigeria, bee-keeping is dominated by several small-scale producers. Their scale of operation and their level of access to production resources and marketing opportunities is a major impediment to their output. A strategy to ameliorate these challenges is the establishment of vibrant economic interest groups that can assist the farmers to maximise the benefits of economies of scale and also strengthen their bargaining powers (Omotesho *et al.*, 2016).

Recent years have witnessed the increased formation of farmers' cooperatives, farmers' associations, farmers' unions, etc. These farmers' groups are self-help groups that can enable farmers to accomplish as a group, tasks, goals, and functions that might prove difficult for individual farmers to achieve (Ofuoku and Chukwuji, 2012). According to Ofuoku *et al.* (2008), in such groups, members harness their financial resources for the benefit of members. Membership of groups also enhances farmers' access to agricultural information. Ofuoku and Urang (2009) opined that extension activities are now carried out in groups as a result of the inadequacy of field extension agents. It is important to note that the levels of achievement in farmer-groups depend largely on the degree of cohesion among its members. Therefore, there is a need to strengthen group cohesion and cooperation among farmers' associations in order to achieve the purpose of group formation.

Cohesiveness is the degree to which members of a group desire to remain in the group. That is measured by how closely the members interact or the resultant effect of all forces acting on the members to make them remain in the groups

(Ogionwoand Eke, 1999). Cohesiveness is central to groups. It is considered vital in the group decision-making, goal attainment, identity and member satisfaction. Cohesion is often viewed from a practical perspective, as inter-personal attraction among members or to the group. It is in a sense, attraction to togetherness as opposed to attraction to the individuals who make up the groups.

Cohesion among groups is a critical determinant of success hence group-centred programs use a positive group setting and stress interaction, focusing on cohesion as one of the necessary steps toward change. As stakeholders of agriculture development programs, they must build constructive interaction, cohesion, acceptance, positive feedback, and a supportive group environment into the program design. This is important to make diffusion of innovations easier, reach a larger number of farmers within a limited time and ease the job of extension agents.

Though beekeepers in Oyo State have established associations in every Local Government Area in the State, not much has been achieved by the groups. The failure of many farmer groups in the country has been linked to low levels of willingness among farmers to sustain active membership of groups particularly in the absence of ongoing developmental projects on which to converge. It has been reported that many farmer-groups are ad-hoc groups hurriedly put together to access benefits from government or donor agencies (Kolade and Trudy, 2014). The few that have survived over time continue to be threatened by corruption and leadership issues resulting in low level of cohesion in many groups. In addition, the level of organisation and cooperation within many farmers' groups in Nigeria has been adjudged unsatisfactory in spite of the importance of groups to the economic advancement of farmers. Varied levels of satisfaction have been reported among members of farmers' groups with implications for farmers' commitment to the groups. It is against this background that the study carried out an analysis of the factors associated with group cohesion among beekeepers in Oyo State, Nigeria.

The Specific objectives of the study were to:

1. describe the group characteristics of bee keepers' associations in Oyo state;
2. examine the reasons for membership of the associations;
3. assess the level of satisfaction of bee keepers with their membership of the associations;
4. determine the level of cohesion among members of the associations; and
5. identify the constraints to cohesion among the associations.

The hypotheses of the study were stated in null form as follows;

H₀₁: There is no significant relationship between group characteristics and level of cohesion within the association

H₀₂: There is no significant relationship between members' satisfaction and the level of cohesion within the association.

METHODOLOGY

Study area - The study was carried out in Oyo State, south western Nigeria. The state is one of important honey producing areas in Nigeria. The state shares an international boundary with the Republic of Benin. Oyo state is mainly agrarian and inhabited by the Yoruba ethnic group. The state covers approximately 28,454km². The equatorial climate is notably characterised with dry and wet seasons and a relatively high humidity. Average daily temperature ranges between 25°C and 35°C almost throughout the year. The climatic condition of the state favours the cultivation of crops like maize, rice, yam, cassava, millet, plantain, cocoa, palm produce and cashew.

Sampling procedure and sample size - The population for the study was made up of of all registered bee keepers' associations in Oyo State. Beekeepers association is the umbrella name in Oyo State with 33 different chapters in each of the local governments. The list of the chapters in each local government and their members was obtained from the Oyo State Ministry of Agriculture and used as the sampling frame for the study. A simple random sampling technique was used to select 15 percent of the members of each of the 33 beekeepers' associations in the study area. Afijio (5), Akinyele (4), Atiba (6), Atisbo (3), Egbeda (7), Ibadan North (3), Ibadan North-east (3), Ibadan North-west (3), Ibadan South-east (4), Ibadan South-west (4), Ibarapa Central (6), Ibarapa East (6), Ibarapa North (4), Ido (6), Irepo (3), Iseyin (5), Itesiwaju (4), Iwajowa (4), Kajola (3), Lagelu (3), OgoOluwa (3), Ogbomosho North (6), Ogbomosho South (5), Olorunsogo (4), Oluyole (5), Oorelope (5), OnaAra (4), Orire (4), Oyo East (6), Oyo West (5), Saki East (6), Saki West (4) and Surulere (8). This gave a total sample size of 151.

Data collection and analysis - The instrument for data collection was a structured questionnaire. Descriptive statistics were used to present the findings of the study. Likert scale was used to assess respondents' reasons for membership, the level of satisfaction of members; the level of cohesion among members of the associations; and the constraints to cohesion among the associations. Individual cohesion score was generated by summing the cohesion perception statements and dividing by the number of the statements. The mean level of cohesion score was generated by dividing sum of individual cohesion score by the sample size.



Pearson's Product Moment Correlation (PPMC) was employed to test the hypotheses of the study.

RESULTS AND DISCUSSION

Result in Table 1 shows some striking similarities in the characteristics of the beekeepers' associations in the study area. The table shows for instance that membership of all the groups was not limited by number, membership for all of them were open, and they all held regular monthly meetings. All the groups had annual membership subscription of ₦2,400 and none of the groups benefited from extension services. This close

similarity among the groups is likely due to the fact that all the groups belong to an umbrella body which regulates their activities to some extent. Majority of the respondents (96%) indicated that their groups emerged from felt need while a few (4%) emerged from past developmental projects. For most of the groups (68.2%) leaders' emergence was by election conducted by the umbrella body of the association while 31.8 percent of the respondents indicated that the mode of leaders' emergence in their groups was by selection. The average membership size of the associations was 31 members.

Table 1: Group Characteristics of Beekeepers' Associations

Variables	Frequency	Percentages	Mean
Limitation of membership by size			
No	151	100	
Nature of membership			
Open	151	100	
Frequency of meeting			
Monthly	151	100	
Mode of emergence of group			
Through felt needs	145	96	
For benefits from developmental projects	6	4	
Leaders mode of emergence			
Selection	48	31.8	
Election	103	68.2	
Extension contact (past 6months)			
None	151	100	
Annual membership subscription per member (N)			
2,400.00	151	100	
Membership size			
< 25	62	41.1	
25-34	26	17.2	
35-44	40	26.5	30.8
>44	23	15.2	

Source: Field Survey, 2017

As shown in Table 2 the most important reason why beekeepers joined the associations was to increase their access to information. This finding agrees with the report of Ofuoku and Urang (2009) that farmers join farmer-groups to have access to timely information. This implies that beekeepers, like arable crop farmers, understand the importance of having up to date information on agricultural production, marketing etc. and rely very much on farmer-to-farmer interaction for this information. This finding further underscores the importance of

farmer- groups in the dissemination of agricultural information. To obtain fair or efficient price for product and input as well as to address common issues collectively were rated 2nd and 3rd respectively as reasons for membership in beekeepers' association. To share risk was ranked least among the reasons for membership in beekeepers' association. This implies that members do not join the association to share burden of risks together which according to priori expectation should be the case.

Table 2: Reasons for Membership of Beekeepers' Associations

Reasons	S.D F(%)	D F(%)	A F(%)	S.A F(%)	Score	MS	R
To share information.	0(0.0)	1(0.7)	80(53)	70(46.4)	522	3.46	1st
To obtain fair or efficient price for product and input.	0(0.0)	0(0.0)	86(57)	65(43)	518	3.43	2nd
To address common issues collectively.	0(0.0)	1(0.7)	85(56.3)	65(43)	517	3.42	3rd

To benefit from increased market access.	0(0.0)	2(1.3)	87(57.6)	62(41.1)	513	3.40	4th
To improve product or services quality.	0(0.0)	2(1.3)	90(59.6)	59(39.1)	510	3.38	5th
To have access to goods and services needed.	0(0.0)	0(0.0)	97(64.2)	54(35.8)	507	3.36	6th
To benefit from increased bargaining power for selling and buying.	0(0.0)	2(1.3)	93(61.6)	56(37.1)	507	3.36	6th
To pool resources and skills.	0(0.0)	2(1.3)	94(62.3)	55(36.4)	506	3.35	7th
To conduct business activities, they could not independently perform.	7(4.6)	32(21.2)	76(50.3)	36(23.8)	443	2.93	8th
To share risk.	52(34.4)	57(37.7)	34(22.5)	8(5.3)	300	1.99	9th

Source: Field Survey, 2017

Table 3 shows the mean scores of respondents' satisfaction with membership of beekeepers association. The result shows that the mean score of increased market access (2.18) was the least and

this could infer that beekeepers association in Oyo State had not effectively linked its members to markets for their products and services.

Table 3: Respondents Satisfaction with Membership of Beekeepers' Association

Reasons	V.D	D	S	V.S	MS
	F (%)	F (%)	F (%)	F (%)	
Membership allows me to conduct business activities, I could not independently perform.	1 (0.7)	9 (6)	97 (64.2)	44 (29.1)	3.46
Sharing and receiving of information.	1 (0.7)	2 (1.3)	98 (64.9)	50 (33.1)	3.30
Sharing of production risks.	2 (1.3)	3 (2)	100 (66.2)	46 (30.5)	3.26
Collectively addressing common issues.	1 (0.7)	6 (4)	101 (66.9)	43 (28.5)	3.23
Improving the quality of product and services.	0 (0.0)	4 (2.6)	109 (72.2)	38 (25.2)	3.22
Accessing goods and services needed.	0 (0.0)	0 (0.0)	120 (79.5)	31 (20.5)	3.21
Pooling of resources and skills.	0 (0.0)	5 (3.3)	113 (74.8)	33 (21.9)	3.19
Increased bargaining power for selling and buying.	1 (0.7)	12 (7.9)	105 (69.5)	33 (21.9)	2.43
Fair and efficient pricing for products and inputs.	0 (0.0)	4 (2.6)	124 (82.1)	23 (15.2)	2.43
Increased market access.	1 (0.7)	57 (37.7)	67 (44.4)	26 (17.2)	2.18

Source: Field Survey, 2017.

VD=Very Dissatisfied, D=Dissatisfied, S=Satisfied, VS=Very satisfied

Results in Table 4 reveals that the overall level of satisfaction of members was low (mean 2.59). More (69.5%) of the members indicated low levels of satisfaction, and none indicated high level

of satisfaction. This implies that more of the members were not satisfied based on their expectations from the group.

Table 4: Distribution of Respondents based on Level of Satisfaction with Membership of Beekeeper's Association

Level of Satisfaction	Frequency	Percentage	Mean
Low (≤ 2)	105	69.5	2.59
Moderate (2.1-3.0)	46	30.5	
High (>3.0)	0	0	

Source: Field Survey, 2017

As shown in Table 5, members agreed with majority of the Likert statements. The result is an indication of cohesion among the members although the mean scores are not high. The

members however held that members had divergent opinions on many beekeeping issues (mean, 1.23), did not undertake joint price fixing (mean, 1.44) and did not share visits and gifts (mean 2.84).

**Table 5: Members' perception of cohesion among members of beekeepers' associations**

Statements	S.D	D	I	A	S.A	MS
	F (%)	F (%)	F (%)	F (%)	F (%)	
Members have similar perceptions beekeeping.	118 (78.1)	32 (21.2)	0 (0.0)	1 (0.7)	0 (0.0)	1.23
Members have a strong sense of belonging.	0 (0.0)	0 (0.0)	1 (0.7)	117 (77.5)	33 (21.9)	3.21
We have joint ownership of assets.	0 (0.0)	69 (45.7)	0 (0.0)	49 (32.5)	33 (21.9)	3.30
Members work together towards the group goals.	0 (0.0)	2 (1.3)	6 (4)	86 (57)	57 (37.7)	3.31
I have a strong sense of responsibility to my group.	1 (0.7)	2 (1.3)	0 (0.0)	84 (55.6)	64 (42.4)	3.38
We have a high rate of success in our collective endeavors.	0 (0.0)	18 (11.9)	11 (7.3)	67 (44.4)	55 (36.4)	3.05
Membership is in my best interest.	0 (0.0)	1 (0.7)	2 (1.3)	109 (72.2)	39 (25.8)	3.23
I share and receive gifts and visits from members often.	14 (9.3)	54 (35.8)	27 (17.9)	54 (35.8)	2 (1.3)	2.84
I belief strongly in the group's norms and values.	0 (0.0)	4 (2.6)	6 (4)	113 (74.8)	28 (18.5)	4.09
I derive economic benefits from the group.	1 (0.7)	4 (2.6)	13 (8.6)	115 (76.2)	18 (11.9)	3.26
I derive social benefits from my group.	0 (0.0)	3 (2)	16 (10.6)	123 (81.5)	9 (6)	3.91
I am committed to the achievement of the group goals.	0 (0.0)	0 (0.0)	2 (1.3)	86 (57)	63 (41.7)	3.40
Our group goals are often met.	0 (0.0)	62 (41.1)	11 (7.3)	58 (38.4)	20 (13.2)	3.04
Intra-group communication is strong.	0 (0.0)	10 (6.6)	12 (7.9)	114 (75.5)	15 (9.9)	3.89
I am proud to associate withmy group.	0 (0.0)	2 (1.3)	5 (3.3)	101 (66.9)	43 (28.5)	3.23
We organize and carry out joint group tasks.	0 (0.0)	65 (43)	1 (0.7)	72 (47.7)	13 (8.6)	3.22
We jointly fix prices of our products.	96 (63.6)	49 (32.5)	1 (0.7)	5 (3.3)	0 (0.0)	1.44
We carry out joint purchase of inputs.	0 (0.0)	9 (6)	2 (1.3)	136 (90.1)	4 (2.6)	3.89
We engage in joint marketing of our products.	0 (0.0)	69 (45.7)	1 (0.7)	73 (48.3)	8 (5.3)	3.13
Production and other bee keeping information is freely shared in the group.	0 (0.0)	0 (0.0)	1 (0.7)	120 (79.5)	30 (19.9)	3.19

Source: Field Survey, 2017

With an overall mean of 3.61, Table 6 shows that the level of cohesion among the members was moderate with over 80% falling

within the low to moderate class. Only 19.9 percent indicated a high level of cohesion

Table 6: Group Level of Cohesion

Level of Cohesion	Frequency	Percentage	Mean
Low (<3)	62	41.1	3.61
Moderate (3.00-3.99)	59	39.1	
High (≥4)	30	19.9	

Source: Field Survey, 2017

Table 7 shows that four of the ten identified challenges to high cohesion among members were severe. Based on the mean score of 3.95, the most severe of the challenges was the inadequacy of resources with which the association

could carry out activities of the groups. Political interference, low level of members' commitment and unrealised expectations were also severe constraints to group cohesion.

Table 7: Challenges to Group Cohesion among Members of Beekeepers' Association

Challenges	N.C	N.S	M.S	S	V.S	M.S	Rank
	F (%)	F (%)	F (%)	F (%)	F (%)		
Difficulty in building trust among members.	80 (53)	32 (21.2)	31 (20.5)	8 (5.3)	0 (0.0)	1.78	6 th
Ineffective communication.	105 (69.5)	24 (15.9)	21 (13.9)	1 (0.7)	0 (0.0)	1.46	9 th
Undue personal interests.	70 (46.4)	48 (31.8)	22 (14.6)	11 (7.3)	0 (0.0)	1.83	5 th
Poor level of financial accountability.	84 (55.6)	40 (26.5)	16 (10.6)	10 (6.6)	1 (0.7)	1.68	7 th
Poor leadership and organizational challenges.	100 (66.2)	35 (23.2)	6 (4)	10 (6.6)	0 (0.0)	1.51	8 th
Unrealized expectations.	32 (21.2)	72 (47.7)	29 (19.2)	18 (11.9)	0 (0.0)	2.21	4 th
Inadequate resources.	2 (1.3)	2 (1.3)	18 (11.9)	109 (72.2)	20 (13.2)	3.95	1 st
Political interference.	2 (1.3)	12 (7.9)	16 (10.6)	100 (66.2)	21 (13.9)	3.83	2 nd
Low level of commitment among members.	35 (23.2)	4 (2.6)	43 (28.5)	56 (37.1)	13 (8.6)	3.05	3 rd
Wrong membership composition.	135 (89.4)	7 (4.6)	9 (6)	0 (0.0)	0 (0.0)	1.17	10 th

Source: Field Survey, 2017

It is evident from Table 8 that there is a significant relationship between group members' level of satisfaction and the group level of cohesion. This positive coefficient implies that the relationship is direct, meaning that group cohesion

increases with the level of satisfaction of members. Ogonwo and Eke (1999) reported that as groups satisfy the needs of its members, the more cohesive the group will be. This position was also affirmed by Ofuoku and Urang (2009).

Table 8: Correlation analysis showing relationship between level of satisfaction of members and level of group cohesion

	Level of Satisfaction	Level of Cohesion
Level of Satisfaction	1	0.523***
Level of Cohesion	0.523***	1

***. Correlation is significant at the 0.01 level (2-tailed)

The result of correlation analysis in Table 9 reveals that the age of the associations ($r=-0.278$, $p<0.01$) and associations' mode of formation ($r=-0.241$, $p<0.01$) were significantly related to the level of group cohesion. However, membership size and leader's mode of emergence were not significantly related to group cohesion. The negative coefficients is an indication the variables were inversely related. For instance, group cohesion decreased with age. This implies that the older groups showed less cohesion compared to the younger groups. It is possible that membership zeal dwindles with an increase in the length of membership particularly when members have not

fully realised their reasons for joining the associations. Ofuoku and Urang (2009) asserted that farmers would remain in their various groups if their needs were satisfied by the group. Also, the negative relationship that existed between mode of group formation and level of cohesion indicates that groups that were formed as a result of felt needs had a higher level of group cohesion than those that were not established to participate and benefit from developmental projects. These findings, however, disagrees with Lewler *et al.*, (2008) in which it was reported that group cohesion decreases with increase in group size.

Table 9: Correlation Analysis Showing the Relationship between Group Characteristics and the Level of Cohesion

Group characteristics	r – value	p – value
Age of the association	-0.278**	0.001
Membership size	-0.052	0.528
Mode of formation	-0.241***	0.003
Leaders mode of emergence	0.089	0.276

Source: Field survey, 2016

***. Correlation is significant at the 0.01 level (2-tailed).



CONCLUSION AND RECOMMENDATIONS

The study concluded that the level of group cohesion among beekeepers in Oyo State was moderate and significantly influenced by level of members satisfaction, age and mode of the emergence of the associations.

Based on the findings of the study, the following recommendations are put forward;

1. Leaders of beekeepers' associations should be trained on the importance and modalities of joint bargaining, pricing, and enhancement of markets for their members. This will increase members satisfaction and hence cohesion among members.
2. Extension agencies should strengthen the groups by educating beekeepers on the importance of their commitment level to the realisation of their reasons for membership.
3. The Government and other stakeholders should ensure that developmental programs engage genuine farmers' groups as opposed to ad-hoc political groups.
4. Microfinance institutions should support beekeepers' associations in Oyo State towards the provision of adequate and timely of resources for members.

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