International Journal of Agriculture Innovations and Research
Volume 3, Issue 2, ISSN (Online) 2319-1473
Manuscript Processing Details (dd/mm/yyyy) :
Received : 01/08/2014 | Accepted on : 12/08/2014 | Published : 26/09/2014

Effects of Socio-Cultural Factors on Effective Agricultural Training Programmes in Zone C of Benue State Agricultural Development Authority (Bnarda)

Ejembi, S. A.*; Abah, E.E. and Attah, A. J.
Department of Agricultural Extension And Communication,
University Of Agriculture, Makurdi, Nigeria
*Email: amejembi@ymail.com; 08035678141; 08094948298

Abstract – **Effective capacity building depends among other factors on the clarity of the programme objectives, the ability and the expertise of the trainers as well as the socio-cultural environment within which the training will be conducted. Many well defined programmes with the right expertise have suffered rejection on account of unfavorable socio-cultural environments. This study thus focused on the Effects of Cultural Factors on Effective Agricultural Development Training Programmes in Zone C of Benue Agricultural Development Authority (BNARDA). Specifically, the study examined the socio cultural characteristics of respondents, identified some socio-cultural factors that may inhibit successful training and determined the effects of these factors on effective capacity building. Seven communities were purposively selected and 118 respondents were selected using simple random sampling technique. Percentages were used to analyze the data on the socio-cultural characteristics of respondents and the identified social-cultural factors. Logit regression was employed to determine the effects of selected socio-cultural factors on effective agricultural development training programmes. The results of the logit analysis show that educational level (3.398), gender discrimination (2.268), traditional beliefs (-.732) and leadership style (2.150) had significant effects on training for agricultural development at 10 percent level of probability. It was concluded that the communities are still tradition bound thereby posing problems for innovation dissemination. It was therefore recommended that extension agents and other stakeholders (development agencies) should intensify advocacy campaigns to predispose the people toward accepting possible training arrangements.**

Keywords – **Effects, Socio-Cultural, Effective, Training, Programmes.**

I. INTRODUCTION

Over the years failures in agricultural programmes have been blamed on the low economic profile of the rural dwellers that constitute the vast majority of the farming population. Top on the list of what Opara (2010) reported about the average Nigerian small scale farmer is extreme poverty among other things. He noted that the consequence of these has been low production and productivity. The performance of Nigerian agriculture so far indicates that the farmers have neither used nor absorbed most of the technologies being introduced to them (Opara, 2010). This is attributed to the fact that most farmers fear trying improved technologies because they do not have the necessary financial resources to adopt the technologies (Ouma *et al.*, 2006; Omolehin *et al.*, 2007). This is partly explained by the fact that most agricultural technologies require complementary inputs such as fertilizers and pesticides. These complementary inputs are difficult to come by due to the cash trapped nature of farmers (Idrisa and Ogunbameru, 2008). Other factors responsible for low agricultural productivity include lack of technical knowledge, poor entrepreneurial skills, and meager access to communication technologies that could help farmers, extension works and others share information. Overcoming these problems, and improving access to markets, could help to increase farm productivity and incomes. This is why capacity building through agricultural training programmes is imperative.

Capacity building is the strengthening of the capacity or ability of the human system to produce results, maintain itself and self-renew (Kahuure, 2013). Capacity building has begun to change from providing technical knowledge and information to farmers to capacity building using the information systems perspective. This assumes that extension agents of the future will have a responsibility that goes beyond providing farmers with technical information, such as which varieties of seeds to use and how to control pests and diseases or make better composts. They will also respond to soft skills that enable them to generate and promote innovations, improve the management of farmers' organizations and agribusiness, and extend alliances and networks of different groups and individuals along the value chain. Developing capacity is important at many levels; hence the need to determine the effects of socio-cultural factors on effective agricultural training programmes among farmers in Zone C of Benue Agricultural and Rural Development Authority (BNARDA). This is crucial because, for learning to be effective, the subject matter must be compatible with the existing social and cultural provisions in the area (Kahuure, 2013).

1.1 Statement of the Problem

Benue State fondly referred to as the "food basket" of the nation was created in 1976 with majority (over 70%) of the population engaged in agrarian economy (BNARDA, 1992). In spite of this almost 100% involvement in agro-allied activity, Benue State can barely feed itself. The problem here according to Bello *et al.* (2002), is that as many as 65% of the country's population are producing 41.5% of the gross domestic product. This according to Bello *et al* (2002) shows that the percentage of Nigerians engaged in Agriculture is more than the world average of 45.7%. This implies that the productivity of the respondent's economy is quite low. Hence, food

production does not keep pace with the country's growth rate. It is also true that several innovation packages have been introduced to farmers in the past to boost productivity yet the result has been poor due probably to poor application of these technologies. Is it that farmers do not understand the technologies, or are there no training programmes to increase farmers' ability to use these technologies, or are there some socio-cultural factors that have made training programmes ineffective? Consequently, this study was designed to provide answers to these questions. The study thus (i) examined the socio-cultural characteristics of respondents, (ii) determine the training programmes in the area as well as (iii) determine the effects of some socio-cultural factors on the training exercise.

The study was carried out in Zone C of BNARDA). This Zone constitutes nine local government areas with headquarters in Otukpo. Okpokwu Local Government Area was purposively chosen for the study due to the traditional involvements of the people. It is geographically located between longitude 7.30^0 – 10^0E and latitude 6.30^0 –8^0N. Seven communities (Agwangwe, Anmoda, Akpoga, Ojapo, Olaidu, Ingle and Ipoya) were purposively selected due to their cultural activities and 118 respondents were selected using simple random sampling technique.

Data were collected by using structured questionnaire to 118 farmers in the selected communities. However, only 115 copies of questionnaire were correctly completed bringing the return rate to about 97% and used for this study. Percentages were used to analyze the data for objectives i – ii. Logit regression model was employed to determine the effects of selected socio-cultural factors on effective agricultural development training programmes. Table 1 show the summary of the sampling procedure and eventual sample size.

Table 1: Summary Of The Sampling Procedure And The Sample Size

S.No	Communities	Population of farm families (X)	Sample size (15% of X)
1	Agwangwe	70	11
2	Akpoga	89	13
3	Anmoda	75	11
4	Ingle	131	12
5	Ipoya	79	12
6	Ojapo	145	22
7	Olaidu	191	29
	Total	**780**	**118**

Projected from NPC (1991)

Logit regression model is of the form $Z = a + b_1X_1 + b_2X_2 + b_3X_3 + \ldots.+b_nX_n$. Where Z = Stimulus which cannot be observed but is defined as linear combination of the observable variables. Xs = Socio-cultural factors of the farmers, I = 1, 2, 3 …. N

The Z can also be referred to as the training programmes in the context of this study. The relationship between the stimulus level (Z) and the socio-cultural characteristics follow a sigmoid shape. Whereas, the probability cannot take on values outside 0 – 1 range, the stimulus can take on any value of the entire real scale (-∞ and -∞). The expected signs of the coefficients of the socio-cultural factors were predicted 'a priori', based on past studies, economic theory and logical reasons. Most of the independent variables were expected to be highly significant in the prototype model at $P \leq 0.1$.

2.1.1 Model specification

Z = effective agricultural development training programmes
X_1 = age (yes = 1, no = 0)
X_2 = sex (yes = 1, no =0)
X_3 = social status (yes = 1, no = 0)
X_4 = beliefs (yes = 1, no = 0)
X_5 = educational status (yes = 0, no = 0)
X_6 = shrines/river (yes = 1, No = 0)
X_7 = marital status (yes = 1, No = 0)

III. Results and Discussions

The results of this study are presented and discussed on the basis of the specific objectives as follows:

1) To examine the socio-cultural characteristics of respondents in the study area.
2) To identify some cultural practices in the study area
3) To determine the effects of the cultural factors on effective capacity building.

3.1 Socio-Economic Characteristics of Respondents

The selected socio-economic characteristics of respondents considered relevant for this study were; age, sex, educational status, annual income, farm size, farming experience, household size, social status and cosmopolitness.

As shown in Table 2, the result of age shows that many (27.0%) of the respondents were within the age bracket of 30.1-40 years. Based on this finding, it can be inferred that the age structure of the study area is dominated by young and active farmers who are capable of performing most of the farm operations by themselves, and because people within this age category are considered energetic and venturesome, they may be willing to participate in training activities. This finding agrees with Rogers (1995), who stated that the younger the farmer, the more likely he or she is to take part in activities that can lead to adoption of innovations.

The result of sex shows that 80.9% of the respondents were male. This analysis shows that farmer's population in the study area is a predominance of male who have more physical strength to meet the demanding activities of agriculture. This population composition also has the advantage of independence as the men are usually the decision makers in a typical African setting, implying that there would be less protocol in trying to secure permission to participate in training programmes.

Analysis of marital status reveals that majority (72.2%) of the respondents were married. It can be inferred based on this finding that the study area is dominated by married people with the task of making ends meet and providing for their families hence, the zeal to increase output. Consequently, this category of farmers may be more willing to avail themselves training opportunities.

The results of educational status of the respondents reveal that over 80% had attained different levels of educational qualifications. There is a positive implication of this on decision to participate in capacity building programmes. Most innovations are rejected or adopted on the basis of inadequate information or knowledge on the innovations' package. With over 80% of the respondents literate, it will simplify teaching and learning process of innovation. It will also make it possible for individuals to understand the values and or importance of technologies. This finding agrees with the findings of Weir and Knight (2000), that educated farmers are more likely to be successful adopters or innovations.

The result of occupation reveals that majority (90.4%) of the respondents were farmers who depended on farming as their major source of income. This implies that updated knowledge of technologies is likely to be accepted to enable adoption so as to improve their standard of living. This agrees with Annor and Kusi (2008), that any sustainable innovation must desirable and relevant to the people.

The result of annual income shows that many (27%) of the respondents had annual income of between N20.0001-N40,0000. It can be inferred based on this finding that the economic status of farmers in the study area is low. This low financial status may be a source of discouragement to farmers from participating in training programmes. The consequence is low threshold for improvement. It is only logical for anyone who is poor to be disenchanted. The result of farm size reveals that many (40.9%) of the respondents had farm size of 9.51 hectares and above. The fact that many of the respondents had up to 9.51 hectares of land means that the study area is dominated by farmers with large hectares of land, who may have the privilege of trying out innovations on small plot of their land to be certain of the benefits before full adoption. Consequently, training arrangements would attract them.

Result of farming experience shows that majority (72.2%) of the respondents had farming experience of ≤ 10 years. This result reveals that the study area is a predominance of farmers who may not have being in farming business for long. From the age distribution of respondents in Table 2, many (27.0%) were within the ages of 30 and 40 years. This probably explains why the farming experience was low. However, the advantage here is that the people may be venturesome and therefore, will be available for training on innovation from the beginning.

Analysis of household size reveals that many (44.3%) of the respondents had small household size of 6-10 members. This implies that, capacity building programmes on improved technologies are likely to be patronized since there is no available labour force. This finding is consistent with Ouma *et al.,* (2001) who found that the rate of adopted technology decreased as family size increased.

The result of social status reveals that majority (58.3%) of the respondents were lay members of the community with low social status and prestige whose decisions are likely to be influenced by leaders of the community. Training programmes can empower them intellectually thereby causing them to make a sustainable decision of agro-allied innovations.

The result reveals that many (31.3%) of the respondents had traveled so many times out of their community and had also interacted with members of other localities and as such, are more informed about new technologies. This will also make them to know the importance of training programmes. This finding is consistent with the finding of Ejembi (2009) that mingling with other people releases an individual from personal traditional opinions as the horizon of experience would have been broadened as a result of cross fertilization of ideas.

Table 2: Distribution of Respondents According to Their Social Characteristics (n = 115)

Characteristics	Frequency	Percentage
Age (years)		
20.0 – 30	21	18.3
30.1 – 40	31	27.0
40.1 – 60	19	16.5
50.1 – 60	26	22.6
60.1 – 70	15	13.0
70.1 – 80	3	2.6
TOTAL	**115**	**100.0**
Sex		
Female	22	19.1
Male	93	80.9
Total	115	100
Marital status		
Single	20	17.4
Married	83	72.2
Widowed	7	6.1
Divorced	3	2.6
Separated	2	1.7
TOTAL	**115**	**100.0**
Educational qualification		
No formal education	24	20.9
Primary	24	20.9
Secondary education	30	26.1
Sub-Degree	37	32.2
TOTAL	**115**	**100.0**
Occupation		
Civil servant	15	13.0
Farming	86	74.8
Trading	14	12.2
TOTAL	**115**	**100.0**
Annual income		
20,000 and below	21	18.3
20,001 – 40,000	31	27.0
40,001 – 60,000	19	16.5
60,001 – 80,000	26	22.6
80,001 – 100,000	15	13.0
100,001 – and above	3	2.6
TOTAL	**115**	**100.0**

Table 2: cont.

Characteristics	Frequency	Percentage
Farm size		
0.5 – 2.0	6	5.2
2.01 – 3.5	14	12.2

3.51 – 5.0	24	20.9
5.01 – 6.5	8	7.0
6.51 – 8.0	10	8.7
8.01 – 9.5	6	5.2
9.51 and above	47	40.9
TOTAL	**115**	**100.0**
Farming experience (years)		
Less than or equal to 10	83	72.2
10.1 – 20	20	17.4
30.1 – 40	6	5.2
40.1 and above	6	5.2
TOTAL	**115**	**100.0**
Household size		
1 – 5	41	35.7
6 – 10	51	44.3
11 – 15	15	13.0
16 – 20	5	4.3
21 and above	3	2.6
TOTAL	**115**	**100**
Social status		
Beaded Chief	5	4.3
Honorary Chief	1	0.9
Community Chief	12	10.4
Opinion Leader	12	10.4
Member of council of elders	18	15.7
Lay member of the community	67	58.3
TOTAL	**115**	**100.0**
Cosmopolitness		
Do not travel at all	5	4.3
Once	8	7.0
2 – 3 times	20	17.4
4 – 5 times	28	24.3
6 – 10 times	18	15.7
> 10 times	36	31.3
TOTAL	**115**	**100.0**

3.2 Socio-Cultural Factors that may Inhibit Successful Training

Table 4 presents a survey of what the people consider as sacred in their area. The entries show that shrines, certain rivers/streams, forests and definite type of trees were identified as sacred for which they hold strong beliefs.

Table 3: Distribution of respondents on the basis of their perceptions of some social and cultural beliefs that inhibits participation in training programmes

Cultural Beliefs	Frequency
Shrines	86
Rivers/Streams	26
Forests	15
No Sacred Places	10
Others (Trees)	1
TOTAL	**138***

* = Multiple Responses

3.3 Effects of Socio-Cultural Factors on Effective Capacity Building

In order to determine the effects of socio-cultural factors on effective capacity building, some selected socio-cultural factors were subjected to logit regression analysis and the results are presented in Table 4.

The data in Table 4 shows that education (-3.398), Gender (2.268), rivers (-.732) and leadership (2.150) were significant at 10% level of probability. It is noteworthy however that both the coefficient of educational status and the cultural beliefs that rivers are sacred, all have negative effects on adoption decisions. This result indicate that as people reduces their belief of rivers as sacred, there will be about 0.7% increase in adoption rate of the people; and that for every level of education acquired, there will be about 3.4% decrease in adoption rate. Ordinarily, the higher the educational attainment, the higher should the rate of adoption be but this is not the case here. This case may be due to the fact that as people become more educated, the likelihood to take to white colar jobs thereby, leaving farming at its traditional level will increase.

From the results of the Wald statistics, the leadership factor has the highest (about 98%) individual contribution to adoption decision followed by education (69%), then gender 43% and rivers as a culturally sacred place. This implies that if leadership becomes effective, then coordination of training activities will also increase.

Table 4: Results of logit analysis of effects of socio cultural factors on effective capacity building

FACTORS	B	S.E.	WALD	DF	SIG.	EXP(B)
Socio-Position	.121	.221	.303	1	.582	1.129
Education	-3.398	1.292	6.914	1	.009*	.033
Family Size	-.970	1.089	.793	1	.373	.379
Association	.197	.922	.046	1	.831	1.218
Interaction	.881	.681	1.672	1	.196	2.413
Age	.348	.838	.172	1	.678	1.416
Gender	2.268	1.093	4.305	1	.038*	9.657
Shrine	-.325	.727	.200	1	.655	.722
Sacred Forest	-.820	1.020	.647	1	.421	.440
Rivers	-.732	1.001	2.993	1	.084*	.177
Leadership	2.150	.685	9.861	1	.002*	8.505
Religious belief	.209	743	.079	1	.779	1.232
Farm size	1.320	.828	2.544	1	.111	3.7443

* = Significant at 10% Level of Probability

IV. CONCLUSION

Based on the findings of this study, it was concluded that farmers in the locality are poor and relatively young. However, they have attained different levels of educational qualifications which can make it possible for the people to embrace training programmes. The farm sizes are large but farming experience among the farmers is low. The logit results show that education, cultural beliefs in rivers, gender and leadership have significant effects of training programmes participation in the study area.

RECOMMENDATIONS

The following recommendations were made based on the findings of the study:

Since effect of education has a negative sign, it shows that the more educated the people become, the less their participation in agricultural training programme. This may be so because the educated people do not usually stay to farm hence the inverse interaction, consequently, they should be encouraged with provision of basic facilities to make the rural environment attractive so that they can stay for innovative farming and consequent training participation.

Finally, aggressive demonstration method should be used by extension agents to show the people that cultural beliefs which are constraining them would not have any adverse effects on them and it will also help lighten the fear of the people over the unknown.

REFERENCES

[1] Annor, S.Y. and Kusi, C. (2008) Factors Influencing the Adoption of Grass Cutter Production in the Brong Ahafo Region of Ghana.www.irrd.org/irrd20/9/anno20141.html.retrieved 14/01/2013.

[2] Bello, M., Somshak, A.S. and Galadima, O. (2010). "Constraints Militating Against the Continuation of Coffee (Arabica) Production in Jos south Local Government Area of Plateau State, Nigeria". Journal of Rural Development, Agriculture and Science, 1 (1): 56-58.

[3] Benue Agricultural and Rural Development Authority (BNARDA) (1992). Village Listing Survey (VLS) Report. Makurdi: BNARDA.

[4] Ejembi, S.A. (2009). "Factors Affecting Community Resource Practice by Farmers in Okpokwu Local Government Area of Benue State". Unpublished Ph.D. Thesis. Submitted to the Department of Agricultural Economics and Rural Sociology, Ahmadu Bello University, Zaria. Pp. 25-27.

[5] Idrisa, Y.L. and Ogunbameru, B.O. (2008). Farmers' Assessment of the Unified Agricultural Extension Service in Benue State, Nigeria. Journal of Agricultural Extension (11):106-114

[6] Kahuure, K. (2013). Building Capacity: In Agricultural Extension a Time for Change, Linking Knowledge to Policy and Action for Food and Livelihoods. Pp20-21. CTA Publications.

[7] National Population Commission (NPC) (1991). Population Census. Abuja: Federal Republic of Nigeria Official Gazette, 94(24).

[8] Omolehin, R.A., Ogunfiditimi, T.O. and Adeniji, O.B. (2007). Factors Influencing the Adoption of Chemical Pest Control in Cowpea Production Among Rural Farmers in Makarfi Local Government Area of Kaduna State, Nigeria. Journal of Agricultural Extension, (10):81-91

[9] Opara, U. N. (2010). Personal and Socio-Economic Determinants of Agricultural Information Use by Farmers on the Agricultural Development Programme (ADP) Zones of Imo State, Nigeria. findarticles.com/./ai-n56551737/. Retrieved 11/01/2012.

[10] Ouma, J.O., De Groot, H. and Owuor, G. (2006). Determinants of Improved Maize Seed and Fertilizer Use in Kenya: Policy Implication. Paper presented at the International Association of Agricultural Economists' conference, Gold Coast, Austrailia, August 12-18.

[11] Rogers, E.M. (1995) Diffusion of Innovations 3rd Ed., New York: Free Press, Collier-Macmillian Limited, London. Pp.11, 20-23.

[12] Weir, S. and Knight, J. (2000). Adoption and Diffusion of Agricultural Innovations in Ethiopia: The Role of Education. http://www.csae.ox.ac.uk/workingpapers/pdfd 20-05 text. pdf. Retrieved 15/08/2012.