Training needs of cassava farmers in Egbeda local government area of Oyo state, Nigeria

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Abstract: This study assessed the training needs of cassava farmers in Egbeda local government area of Oyo State, Nigeria. Simple random sampling technique was used to select one hundred and twenty (120) respondents from six communities in the study area. Data were collected using interview schedule and analysed using both descriptive and inferential statistics. The results revealed that, majority of the respondents (60.0%) belong to the age group of 31-50 years. Higher percentage of the respondents (71.7%) were married and (54.2%) of them had no formal education. Majority of the respondents (60.0%) had cassava farming as their primary occupation with many of them (58.3%) having a farm size of less than five hectares. Few (18.3%) of the farmers had access to extension agents and majority of them (46.7%) planted local variety of cassava. Area of training highly needed by the respondents includes choosing desirable variety (71.6%),industrial utilization of cassava chips (70.8%) and fertilizer application (64.2%).The major constraints limiting farmers access to training include lack of credit facilities (72.5%) among other variables. There is significant association between respondents age (χ^2=19.462, p<0.05), educational level (χ^2=13.132, p<0.05), farm size (χ^2=15.156, p<0.05) and training needs of the farmers. Also there is correlation between constraints (r=0.153, p<0.05) and training needs of the respondents among other variables. It is recommended that training programmes should be organised for farmers in the areas where they are deficient in knowledge and skills.

Keywords: Training, needs, cassava, farmers, local government.

INTRODUCTION

Cassava, *Manihot esculentus* is a dicotyledonous perennial plant belonging to the botanical family Eupharbiarceae. It is a starchy root crop that is grown almost entirely in the hotter lowland tropics. The crop is also known under a variety of names according to the region in which it is cultivated; cassava in the English speaking countries of North America, Europe and Africa, in French speaking countries as tapioca. The total amount of cyanogenie glycosides in cassava root is often used to place the numerous cassava cultivars into two major groups, the 'bitter' variety, in which the cyanogenie glycosides are distributed throughout the tuber and are at a 'high' level, and the 'sweet' varieties in which the glycosides are confirmed chiefly to the peel and are at a 'low' level (Ojeagbase, 2008).

In Nigeria and many parts of the world, cassava (*Manihot eceulenta*) plays a major role in the economy both as source of food and as industrial raw materials. In the Western and Eastern parts of Nigeria, cassava occupies an important position in the agricultural economy. The root accounts' for over 50 percent of carbohydrates intake when processed into various foods, (Adjebeny – Asem, 1990).Cassava must be adequately processed before it can be consumed as food. Raw cassava is known to contain Linamarin and lotanstralin, which when acted upon by linamarase (the enzyme released when cassava root cells are rupture), are converted to hydrocyanic acid (HCN).The HCN is converted into thiocyanate, a sulphur containing compound when it enters the blood stream, Thiocyanate is detoxified using body sulphur after which it is excreted in urine.

Thicyanate is known to be poisonous to the body by using up the body sulphur during detoxification, thereby interfering with the thyroid glands uptake of iodine, resulting in goiter. The most common species of cassava tubers in Nigeria are known to have high cyanide concentration. Processing cassava into gari is known to reduce the cyanide content of cassava quite considerably. This is a reduction of 98.17 percent as compared with 69.85 percent reduction of boiled tuberous roots, (Anga, 2005).

Training can be described as a planned process to modify attitude, knowledge, or skill behaviour through learning experience to achieve effective performance in an activity or range of activities. Its purpose in the work situation is to develop the ability of the individual and to satisfy the current and future needs of the organisation. Certo (1997) posited training as "act of increasing the skills that will enable employees to better meet the organisations goals. He further stated that training can improve productivity by holding down a variety of costs and also, well-trained employees can deliver higher quality than poorly trained people. Training has the potential for making a major contribution towards improved agricultural management particularly in ways that would directly benefit the small scale farmers. Training is undertaken to enable the employee adjust to the changes taking place in the organisation, mainly those that require the acquisition of new skills and expertise. Farmers may not adapt to the level expected, and this can be as a result of inadequate training in cassava planting materials and processing technologies.

Needs represent an imbalance or lack of adjustment between the present situation or status quo and a new or change set of conditions assumed to be more desirable. The term "need" in essence, signifies the lack of something that if present would in his or another view furthers the welfare of an individual, family or community. In the same vein Gates (1984) defines needs as "an inclusive terms to brace drives, impulses, goals, sets, urges, motives, desires, carvings, wants, and wishes a need exists as a state of tension which leads a person towards activities which relieve tension. More specifically, needs may be described as the differences between what is and what ought to be and hence always imply a gap between these conditions. Halim and Ali (1997) refer to the gap as a problem which usually occurs when a difference exists between desired performance and actual performance.

Training needs thus identified knowledge and skill gap between what is and what ought to be in the execution of specific tasks towards the achievement of set goals and objectives. It can be considered a condition in which there is a difference between "what is and what should be" (FAO, 1991). Kogan (1993) defines training need as a condition in which there is a difference between job done to current ability of jobholder and job done excellently. This difference can be in terms of the knowledge, attitude or skills that trainees require to perform their jobs effectively. Patel (1980) differentiate between "training needs and developmental needs" as the total growth and effectiveness of the individual helping the individual to realize the potential that he or she seems capable of achieving and preparing the individual for handling future higher responsibilities. It is apparent that development needs are broader than training needs. But for practical purposes, training need includes developmental needs. Development takes a longer – term view and although still based on bahavioural changes or learning, adopt a far longer time scale. It encompasses such area as life – long learning, the learning organisation and organisational development. Development focuses on the longer-term needs of the employer and employee (Bratton and Gold, 1994).Patel (1980) also observed that the tendency for most organisation whenever a problem arises has been to say that there is training need. He posited this as being responsible for ill-conceived training needs and training programmes. He is of the opinion that, it is necessary to develop alternative solutions without rushing into hasty training programme. This assertion about the concept of training needs shed light to the need for understanding clearly, the training need of people in any programme of training. Therefore, the condition of cassava farmers will not only be influenced by

decisions reached about their training needs, but also by the extensive physical and human resources that will have to be committed in helping them meet their training needs. The training needs of cassava farmers will depend among other things on the skills, knowledge and attitudes that are desirable for them. It also depends on how much their present condition differs from those of optimal conditions in meeting their needs. The study will assist policy makers on broad policy measures and interventions by developing training programmes that will increase the productivity of cassava farmers. The study will further examine which areas of the inefficient practices, cassava farmers need training with a view to finding sustainable solution to the planting methods and processing of cassava technologies in Egbeda Local Government Areas of Oyo State, Nigeria.

Objectives of the Study

The study examined the areas of training needed by cassava farmers in Egbeda Local Government Areas of Oyo State. Specifically the study attempted to:

1. describe the socioeconomic characteristics of the cassava farmers,
2. determine the training needs of cassava farmers in the study area,
3. identify the sources and types of cassava cultivars cultivated in the study area and
4. identify cassava farmer's production constraints.

Research Hypotheses:

H_01: There is no significant relationship between some selected socioeconomic characteristics of the cassava farmers and their training needs.

H_02: There is no significant relationship between constraints and training needs of farmers in the study area.

METHODOLOGY

The study was conducted in Egbeda Local Governments Area of Oyo State, Nigeria. This area lies in the South Eastern zone of the state. It is bounded in the north by Lagelu Local Government, in the south by Ona – Ara Local Government, in the east by Osun State and in the west by Ibadan North Local Government area. The target population of the study are farmers who specialize in the cultivation of cassava in 2013/2014 cropping season in Egbeda local government. It is made up of about one hundred and twenty (120) communities. A simple random sampling technique was used in selecting twelve communities and ten (10) registered farmers from each community making a total of 120 respondents used for the study. The dependent variable for this study was training needs of cassava farmers. This

was measured by listing the areas of training needs of cassava farmers on 3 point rating scale of highly needed which attracted a score of 2, fairly needed which attracted a score of 1, and not needed which attracted a score of 0. Also respondents constraints in cassava production was measured on a 3 point rating scale of severe= 2, partially severe=1, and not severe=0. The data collected were subjected to descriptive statistics such as frequencies counts, percentages and means while the inferential statistics used in testing the hypotheses of the study are Chi – Square (χ^2) and Pearson product moment correlation (PPMC).

RESULTS AND DISCUSSION

Socioeconomic characteristics of cassava farmers

Table 1 shows the socioeconomic characteristics of the respondents. The result show that, majority (60.0%) of the respondents belong to the age group of 31-50 years. The implication of this is that majority of the cassava farmers were in their middle age, and this is likely to influence their productivity. This result is in line with the finding of Ajayi, (2008), who found that majority of the cassava farmers were in their active age. Result also shows that higher percentages (71.7%) of the respondents were married, 75.8% were male, and 57.7% of them belong to the Islamic faith group. Majority (54.2%) of the respondents had no formal education, while a few, (21.7%) had both primary and secondary education. This finding agrees with the opinions of Erhabor and Emokaro (2007), that cassava production in Nigeria is cultivated by farmers who have low educational qualifications. Majority (60.9%) of the farmers had cassava farming as their primary occupation with quite a number of them (58.3%) having a farm size of less than five hectares. This implies that most of them are small scale farmers. This is in line with the findings of Oyeyinka et al (2011) that the small scale farmers constitute more than 70% of all farming population in Nigeria.

Table 1: Distribution of socioeconomic characteristics of cassava farmers, n=120

Characteristics	Frequency	Percentage
Age in years		
Less than 25	12	10.0
25-30	10	8.3
31-40	25	20.8
41-50	47	39.2
51-60	18	15.0
Above 60	08	6.7
Marital status		
Single	27	22.5
Married	86	71.7
Widowed	05	4.2
Separated	02	1.7
Sex		
Male	91	75.8
Female	29	24.2
Religion		
Christianity	48	40.0
Islam	62	57.7
Others	10	8.3
Educational level		
No formal education	65	54.2
Adult literacy	27	22.5
Primary education	20	16.7
Secondary education	06	5.0
Tertiary education	02	1.6
Primary occupation		
Cassava farming	72	60.0
Trading	14	11.7
Farming	27	22.5
Artisan	07	5.8
Farm size		
>5 hectares	70	58.3
5-10 hectares	28	23.3
11hac-15hectares	14	11.7
<15hectares	08	6.7

Source: Field survey, 2014

Respondents' sources and types of cassava cuttings cultivated.

The result in table 2 shows that majority (43.3%) of the respondents got their cassava cuttings from the middle men, 31.6% got theirs from the ministry of agriculture, 18.3% got theirs from the extension agents and 6.7% got theirs from other farmers and friends. This implies that the Oyo State Agricultural Inputs Supply Company (OSAISCO) which is supposed to enhance the supply of inputs such as fertilizers, desirable varieties of cassava to farmers has not been able to perform this role as expected. This is why the farmers have to depend mostly on the middlemen who normally charge exorbitantly on the inputs supplied. Results also show the breakdown of farmers by the types of cassava cutting they planted in 2013/2014 cropping season. Result shows that a larger proportion (46.7%) of the farmers planted local variety, followed by 26.7% of the farmers who planted recycled improved variety. A very low

proportion (5.0%) of the farmers planted improved cassava varieties. The implication of this finding is that improved cassava varieties are not widely spread in the study area. This is why majority of the farmers concentrated on the cultivation of local variety of cassava cultivars. Also this may be due to the skill and knowledge gap of the farmers thereby necessitating their training needs.

Table 2: Distribution of respondents by sources and types of cassava cutting cultivated

Sources of cassava cuttings	Frequency	Percentage
Extension agents	22	18.3
Friends/other farmers	08	6.7
Ministry of agriculture	38	31.6
Middle men	52	43.3
Type of cassava cuttings		
M98/00409	06	5.0
92B/00068	10	8.3
99/2123	05	4.2
Recycled improved variety	32	26.7
98/2132	0	0.0
M98/0068	07	5.8
97/4779	04	3.3
Local variety	56	46.7

Source: Field survey, 2014.

Respondents Training Needs

Tables 3 show the training needs of cassava farmers. This table reveals that, choosing of improved varieties (70.1%), multiplication of planting materials (68.4%), and industrial utilization of cassava (65.9%), fertilizers application (64.2%), spraying of insecticides (60.0%) and modern processing technique (70.8%) were areas which respondents highly needed training. The quest for training in these areas by the farmers might be as a result of the recent high demand for cassava products in Nigeria for export and the policy of the government on the value chain addition of cassava by flour mills and pharmaceutical companies. Farmers' acquisition of training in these areas will increase their income as asserted by Ajayi (2008).

Table 3: Respondents training needs in cassava production and processing

Training needed	Highly needed	Fairly needed	Not needed	Mean Score
Preparation of cuttings	70 (58.4)	22 (18.3)	28 (23.3)	2.3
Choosing desirable	85 (70.1)	25 (20.8)	10 (8.3)	2.7
varieties				
Planting of cuttings	65 (54.1)	38 (31.7)	17 (14.2)	2.6
Multiplication of planting material	82 (68.4)	10 (8.3)	28 (23.3)	2.3
Intercropping	16 (13.3)	20 (16.7)	74 (61.8)	0.9
Fertilizer application	77 (64.2)	30 (25.0)	13 (10.8)	2.7
Land weeding	20 (16.7)	18 (15.0)	82 (68.3)	0.9
Spraying of insecticides	72 (60.0)	20 (16.7)	28 (23.3)	2.3
Storage of cassava tubers	20 (16.7)	15 (12.5)	85 (70.8)	0.8
Link to buying agents and market	64 (53.3)	36 (30.0)	20 (16.7)	2.5
Traditional processing	20 (16.7)	23 (19.2)	77 (64.1)	1.1
Modern processing	85 (70.8)	17 (14.2)	18 (15.0)	2.6
Industrial utilization of cassava	86 (71.6)	20 (16.7)	14 (11.7)	2.6
Making quality hour	20 (16.7)	25 (20.8)	75 (62.5)	1.1
Selection of varieties suitable for produce processing	31 (25.8)	56 (46.7)	33 (27.5)	2.2
Procedure for credit acquisition	65 (54.2)	45 (37.5)	10 (8.3)	2.8
Equipment purchasing process packaging	79 (65.9)	31 (25.8)	10 (8.3)	2.8

Source: Field survey, 2014
Figures in brackets represent percentages.

Respondents' constraints on cassava production

The results in table 4 shows that the areas in which the respondents realized substantial constraints on cassava production were, inadequate credit facilities (X=2.8), lack of training (X=2.6), inadequate skill on cassava production (X=2.5), lack of extension contact (X=2.6), and lack of improved varieties (X=2.9) among other ones. This result is in agreement with the finding of Nweke et al (2002), who posited that training needs of farmers on cassava production indicated that respondents were fully

aware of the areas of cassava production and processing where training needs is inevitable.

Tables 4: Respondents constraints in cassava production

Constraints	Not severe	Partially severe	Severe	Mean Scores
Lack of improved variety	20 (16.7)	29 (24.1)	71 (59.2)	2.9
Unavailability of planting material	44 (36.7)	34 (28.3)	42 (35.0)	1.9
Inadequate post-harvest handing	36 (30.0)	22 (20.0)	60 (50.0)	2.1
Lack of extension contact	16 (13.3)	42 (35.0)	62 (51.7)	2.6
Lack of training	15 (12.5)	20 (16.7)	85 (70.8)	2.6
Inadequate skill on production	21 (17.5)	29 (24.2)	70 (58.3)	2.5
Inadequate skill on utilization	38 (31.7)	32 (26.7)	50 (41.6)	2.0
Pests and diseases effect	46 (38.4)	10 (8.3)	64 (53.3)	1.8
Inadequate credit facilities	10 (8.3)	23 (19.2)	87 (72.5)	2.8
Marketing problem	30 (25.0)	24 (20.0)	66 (55.0)	6.0

Source: Field survey 2014
Figures in brackets represent percentages.

Relationship between respondents' socioeconomic characteristic and training needs:

Tables 5 show the results of chi-square analysis of the relationship between selected socioeconomic characteristics and cassava farmers training needs. The table revealed that age of the respondents has a significant relationship with training need (χ^2 =19.462, P< 0.05). The implication of this finding is that as cassava farmers get older more training is required in the areas of need identified so as to keep them abreast of the latest development and improvement on cassava cultivars. This finding is in line with the result of (Ogunleye et al 2012) and in contrast with the findings of Ajayi (2008) who posited that farmers being in their active age so tends to respond swiftly to training. Furthermore, there is a significant association between the respondents level of education (χ^2 = 13.132, P, <0.05), farm size (χ^2 =

15.156, P< 0.05) and their training needs. This findings corroborated the opinion of Ajayi, (2008), who posited that the farmer with less educational level are likely to have more quest for training needs, because farmers in this category would want to learn more in order to improve their production.

Tables 5: Relationship between respondents' socioeconomic characteristics and training need.

Variables	Chi-square value	Degree of freedom	P-value	Remark
Age	19.462	4	0.53	S
Marital status	8.347	3	0.71	NS
Sex	7.890	1	0.34	NS
Religion	7.164	2	0.31	NS
Educational level	13.132	4	0.45	S
Primary occupation	6.143	3	0.18	NS
Farm size	15.156	3	0.61	S

Source: Field survey, 2014

Correlation coefficient between constraints and training needs of cassava farmers.

The result of the Persons Product Moment Correlation analysis in table 6 indicated that there is significant relationship between constraints on lack of extension contact and training needs of cassava farmers (r=0.153, P<0.05). The implication of this finding is that the training needs of cassava farmers are significantly impeded by lack of extension contact. This might be the reason why the farmers do not have access to improved variety of cassava cuttings which could have boosted their production. Furthermore, there is significant relationship between inadequate credit facilities and training needs of cassava farmers (r=0.338, P< 0.05). This implies that majority of the cassava farmers do not have access to credit facilities which invariably affected their acquisition of necessary skills and knowledge to boost their cassava production and improve their processing techniques.

Table 6: correlation coefficient between constraint and training needs of farmers

Constraints	T-value	P-value	Decision
Lack of extension contact	0.153	0.006	S
Inadequate credit facilities	0.338	0.000	S

Source: Field survey, 2014

CONCLUSION AND RECOMMENDATIONS:

The study concluded that most of the respondents were male, with majority of them between 31-50 years of age. The study clearly showed that farmers are yearning for training in new areas of cassava production and processing technologies. However, some constraints like choosing desirable varieties and industrial utilization of cassava chips have been found militating against the training needs of cassava farmers. Based on the findings of the study, the following recommendations were suggested.

1. There is need for mass literacy campaign for the cassava farmers. Since majority of them had no formal education, this will enhance their understanding of the training needs on cassava production and processing technologies.
2. There is need for improvement on the extension farmers –ratio in the study area, since most of the farmers do not have access to extension agents. This will provide adequate information to farmers on new cassava production and processing technologies.
3. The government should provide loan and credit facilities to farmers in order to be able to purchase desirable varieties of cassava cultivars, fertilizers and processing equipment.

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