

SOCIO ECONOMIC CHARACTERISTICS AND AGRICULTURAL EDUCATION NEEDS OF WOMEN IN CROP PRODUCTION AGRIBUSINESS IN EDO STATE: IMPLICATIONS FOR PARTNERSHIP

BY

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Abstract

This study examined the socio economic characteristics and crop production agribusiness needs of women in Edo State. Shanteau's theory of expert competence was the theoretical frame work on which this study was hinged. The study utilized the descriptive survey research design. 277 women were sampled from 914 registered women engaged in crop production agribusiness in Edo State using the proportionate stratified random sampling technique and applying the Yaro Yamane formula. A questionnaire with two four point scales served as the instrument for collecting data with reliability index of 0.87 using the cronbach alpha formula. Data collected was analyzed using frequency, percentages and the borich formula. The study found that most of the rural women involved in crop production agribusiness in Edo state are aged 40-49 years. The mean weighted discrepancy scores of the various tasks listed in crop production agribusiness showed the greatest agricultural education needs of the women to be sourcing of fund for their crop agribusiness enterprise, formulating of objectives for the enterprise and access to extension agents. The major barriers the women faced included inadequate capital, lack of storage facilities and inadequate transportation. It was therefore recommended that structures be put in place by policy makers to facilitate access to finance from financial institutions at low interest rates and even without collaterals for the women to be more effectively involved in crop production agribusiness in Edo state.

Introduction

Agriculture has a great role to play in reducing poverty. Some 2.5 billion people in developing countries depend on agriculture for their livelihoods. Beyond its direct benefit to rural livelihoods, the agricultural sector has particularly strong links to the rest of the economy, and this is one of the most powerful ways through which it generates overall growth and reduces poverty. As agriculture grows, overall economic growth reduces rural and urban poverty faster (Department for International Development [DFID], 2005). Rural women play a key role in supporting their households and communities in achieving food and nutrition security, generating income and improving rural livelihoods and overall well-being. Millions of women also work as farmers, farm workers and natural resource managers (Onyemobi, 2000). According to estimates by

the Food and Agricultural Organization [FAO] (2013), women represent more than half of the labour required to produce the food consumed in developing countries. In sub-Saharan Africa, the figure is higher reaching three-quarters of the total labour force. More specifically, African women perform most of the work related to some agricultural tasks e.g. hoeing, weeding, storage operations and processing. In doing so, they contribute to national agricultural output, maintenance of the environment and family food security (Brown, Feldstein, Haadad, Pena and Quisumbing 2001). In Nigeria, the involvement of women in agriculture has attracted greater attention in recent years because of the recognition that women play very significant roles in agricultural production, processing and utilization. Nnadozie and Ibe (as cited in

Odurukwe, Matthews-Njoku and Ejiogu-Okereke, 2006).

The substantial involvement of rural women in agriculture, primarily as unpaid or contributing family workers, highlights the importance of developing policies and programmes that address the needs, interests and constraints of women as well as men in the agriculture sector. This includes revamping and strengthening extension systems to be more responsive to and inclusive of women, addressing structural barriers to women's access to productive resources, and improving financial systems to respond to the needs of rural women producers and entrepreneurs, including moving out of the less productive segments of the rural economy (UN women's watch, 2012). Women make up about 43 percent of the agricultural labour force in developing countries on the average (UN women's watch, 2012). Evidence indicates that if these women had the same access to productive resources which include education, extension services, land and credit as men, they could increase yields on their farms by 20 to 30 percent, raising total agricultural output in developing countries by 2.5 to 4 percent, in turn reducing the number of hungry people in the world by 12 to 17 percent (Department of state USA, 2011). Women's fundamental contribution is continually under-appreciated and under-supported and is often adversely affected by prevailing economic policies and other development conditions giving rise to a scenario of women working so hard most of their lives in agricultural related pursuits with insignificant results. There is little improvement in their standard of living and most often are unable to access basic luxuries of life and better healthcare. Partnerships that promote agricultural research and development programs must be encouraged to reverse these circumstances and achieve sustainable rural development through Agriculture as it plays a major role in generating incomes and employment in rural areas and consequently reducing poverty.

Needs assessment is a process for figuring out how to close a learning or performance gap. It involves determining what the important needs are and how to address them. The process includes comparing the current condition to the desired condition, defining the problem or problems, understanding the behaviors and mechanisms that contribute to the current condition, determining if and how specific behaviors and mechanisms can be changed to produce the desired condition, developing solution, strategies and building support for action (Sleezer, Russ-Eft & Gupta, 2014). There are various reasons which have contributed to the growing importance of needs assessment in our society and these are not limited to demands for accountability, the presence of a vast array of unsolved problems, the need for efficient utilization of scarce resources, and the crucial role of needs assessment as the nucleus of the planning process for farm programs. According to Herbert (as cited in Uko, 1985), needs assessment as a nucleus of any program provides the basis for determining objectives, a starting point, a direction, a basis for appraisal and the basis for an authorization to proceed with a particular program or the permission to stop that program.

The theory of expert competence proposed by Shanteau (1992) which emphasizes five factors that impact the skills and abilities of experts, i.e. domain knowledge, psychological traits, cognitive skills, decision strategies and task characteristics is the theoretical framework on which this study is hinged. This theory provided a guide to possible Agricultural Education needs of women engaged in crop production agribusiness to make such agribusiness enterprises profitable, worthwhile and a means of improving the standard of living of the average woman on relevant indices (better nutrition, access to health care and finance).

Objectives

1. To ascertain the socio-economic characteristics of the rural women in Edo state.

2. To determine the Agricultural Education needs of women for maximal productivity in their crop production agribusinesses.
3. Establish existing barriers to efficient use of agricultural resources for profitable crop production agribusinesses by rural women in Edo state.

Methods

The design of the study was the descriptive survey research. A sample of 277 women were selected for the study from a population of 914 registered women engaged in crop production agribusiness using the proportionate stratified random sampling technique and the Yaro Yamane formula. A 27 item questionnaire with two four point scales was the instrument used for the study after being validated by three lecturers in the department of Vocational Education, Delta State University, Abraka. Reliability coefficient of 0.87 was got using the cronbach alpha method. Frequency and percentages were used to describe the socio economic characteristics and barriers to efficient use of agricultural resources by the women, while the Borich formula was used to compute the Agricultural Education needs of the women in crop production agribusiness thus:

$En = (Dis) IG$

Where:

En = the computed educational need.

Dis =Discrepancy scores

IG = the perceived average importance of the task as rated by the women.

According to the above formula, the multiplication of the discrepancy scores by the average importance score yields the mean weighted discrepancy score (MWDS) which represents the computed educational need for a particular task. A task which has a negative score would be considered as not being an Agricultural educational need since it would have resulted from a combination of a very low importance score and a very high ability score, or a very low discrepancy score. A task with a score which is relatively close to zero would also not be considered as an Agricultural education need since it would seem that existing knowledge of the task, or the ability possessed to carry out the task, is equal to the respondents' perceived importance of the task. Those tasks having positive scores represent an Agricultural Education need.

Results

Table 1: Socio economic characteristics of rural women in production crop agribusiness in Edo State

VARIABLES	FREQUENCY	PERCENTAGE
AGE (Years)		
Less than 30 years	28	10.8
30-39	52	20.0
40-49	110	42.3
50-59	66	25.4
Greater than 59	4	1.5
TOTAL	260	100
MARITAL STATUS		
Single	37	14.2
Married	180	69.2
Widowed	22	8.5
Separated	21	
TOTAL	260	
HOUSEHOLD SIZE		
Less than 5	92	36.2

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5-7	116	45.7
Greater than 7	46	18.1
TOTAL	254	100
LEVEL OF EDUCATION		
No schooling	30	11.7
Primary school certificate	74	28.9
Secondary school certificate	78	30.5
Tertiary Education	74	28.9
TOTAL	256	100
YEARS IN CROPAGRI BUSINESS		
Less than 5	44	17.3
5- 10	135	52.9
Greater than 10	76	29.8
TOTAL	255	100

Source: Field data, 2015.

Table 2:

The Agricultural Education needs of women in Crop Production Agribusiness

Rank	Tasks	Importance	Ability	MWDS
1.	Source fund for the enterprise	3.62	2.67	3.69
2.	Formulate objectives/goals for the production enterprise	3.57	2.85	2.97
3	Access to extension agents	3.58	2.89	2.55
4.	Access to Information channels that will enhance agribusiness	3.51	2.82	2.46
5	Employing qualified personnel at affordable cost to the enterprise	3.28	2.57	2.36
6	Storage of farm produce	3.35	2.76	2.26
7	Selecting an appropriate farm business record system.	3.20	2.55	2.23
8	Determine the type of farm enterprise to develop.	3.72	3.08	2.15
9	Attendance of agricultural conferences and shows	3.36	2.74	2.13
10	Access to market information	3.58	3.00	2.09
11	Recording production and sales information.	3.40	2.88	2.05
12	Value addition to products for better competitiveness	3.23	2.67	2.04
13	Keeping record of farm business inventory.	3.27	2.76	2.01
14	Obtain a suitable site for the enterprise	3.38	2.82	1.96
15	Keeping record of equipment maintenance information.	3.18	2.72	1.90
16	Determine whether to participate in government farm programs.	3.50	2.99	1.88
17	Interpreting market reports.	3.21	2.65	1.85
18	Analyze farm records for decision-making purposes.	3.32	2.78	1.82
19	Ability to diversify the agribusiness	3.08	2.57	1.81
20	Fertilizer application	<i>Onyekwuluje C.O. & Egbule P. E.</i>		
21	Ability to select market places.			
22	Compare storage costs with selling at harvest.	3.28	2.78	1.74
23	Grading of produce	3.21	2.71	1.64
24	Reconcile sales with production cost to ascertain profit or loss	3.50	3.02	1.33

25	Irrigation methods	2.73	2.32	1.09
26	Pesticide application	3.01	2.68	0.98
27	Assemblage of produce.	3.27	3.02	-2.03

- a. Importance level: 4= Highly Important, 3 = Averagely Important, 2= slightly Important, 1 = Not Important
b. Ability level: 4 = Highly possessed, 3 = Averagely possessed, 2 = slightly possessed, 1 = Not possessed at all
c. MWDS: Mean Weighted Discrepancy Score.

Source: Field data, 2015.

Table 3:

Barriers militating against effective use of Agricultural resources by rural women in Edo state for profitable crop production agribusinesses.

Challenge	YES		NO	
	Frequency	%	Frequency	%
Lack of storage facilities	204	78.5	52	20.0
Inadequate capital	246	95.0	13	5.0
Lack of access to improved seeds/planting materials	135	52.1	124	47.9
Poor patronage	149	57.5	110	42.5
Lack of adequate transportation	194	74.6	66	25.4
Lack of market information	176	68.0	83	32.0
Unavailability of extension agents	112	43.2	147	56.8
Difficulty in renting/purchasing land	177	68.3	82	31.7
Theft	169	70.4	71	29.6

Source: Field data, 2015.

Findings and discussions

The study found the following:

69.2 percent of women involved in crop production agribusiness are married with an average age of between 40-49 years and have at least a primary school certificate. The fact that majority of the women are married agrees with Onyemobi (2000) who asserted that rural women play a key role in supporting their households and communities in achieving food and nutrition security, generating income and improving rural livelihoods and overall well-being. The research of Brown et al (2001) also correspond to the findings of this study as they also found that African women perform most of the work related to some agricultural tasks e.g. hoeing, weeding, storage operations and processing. In doing so, they contribute to national agricultural output, maintenance of the environment and family food security. Studies of Nnadozie and Ibe (as cited in Odurukwe et al, 2006) found that the involvement of women

in agriculture has attracted greater attention in recent years because of the recognition that women play very significant roles in agricultural production, processing and utilization.

Results of the ranking of the mean weighted discrepancy scores of the agricultural education needs of women in crop production agribusiness in Edo state reveals that tasks such as sourcing funds for the enterprise, formulating goals for the crop production agribusiness enterprise, access to extension agents, access to information channels that would enhance the enterprise amongst others, represented the major agricultural education needs of the women. This is supported by findings from a research on training needs of women in agriculture in Delta and Edo states of Nigeria by Ikeoji (2008) which also revealed that the women needed training in planting and

post planting operations. There was a dire need to train the women in processing, credit procurement techniques and marketing of farm produce. In a study on the competency improvement needs of women in agriculture in processing cocoyam into flour and chips for food security in South Eastern Nigeria by Ukonze and Olaitan (2010), it was also discovered that improvements were needed in planning and the processing. Ndifon, Patrick and Idiku (2012) also assessed the extension education needs of women farmers in South-South Nigeria and found that the respondents needed training in several areas of skill acquisition including equipment maintenance, working with the local government, Planning for retirement, equipment operation, building infrastructure, labour management, marketing products, pest management, increasing productivity, organizing and running meetings, maintaining environmental health and managing finances. These findings are also similar to those in this study.

According to Teo (1996), successful businesswomen need to have access to current technology, training, and other educational programs. Results from Annie's project (Eggers, 2002) which was specifically designed to empower women to be better agribusiness partners through provision of necessary tools and networks revealed increased women proficiency in five specific risk categories such as marketing, finance, human resource, legal and production.

Inadequate capital seemed to be the foremost barrier faced by the women involved in crop production agribusiness. Ninety five percent of the respondents indicated as such. The next barrier was a lack of storage facilities (78.5%), lack of adequate transportation (74.6 %) followed by theft (70.4 %). This is in line with the UN women's watch (2012) that reported the challenges of women in agriculturally related pursuits to include ; Poor access to improved agricultural technologies that would reduce wastage of agricultural produce and damages

which occur during picking & harvesting, low margins due to seasonality and high perishability of agricultural produce, poor access to storage, transport and communication facilities, poor knowledge of packing, grading, quality parameters and standards which reduces the shelf life of products ,multiplicity of laws, taxes, duties and regulatory authorities and impediments in the flow of credit from financial institutions to the food processing industry amongst others.

Implications for partnership

Partnership whether private or public is not an entirely new concept in Agriculture. According to Ojha and Morin (2001), the partnership model is now emerging as a possible solution to the problem of effective technology transfer and increased productivity of all persons involved in agribusiness including women. Academics, development professionals and practitioners are all now considering how partnerships between and among the state, the market, and NGOs can better tackle the problem than any of these agencies acting individually (World Bank, 1997).

Due to Growing budgetary constraints, developing competitive agriculture is costly. Low population densities in the rural areas coupled with their remote locations and weather-dependent production systems have made it imperative to utilize the power of partnership to modernize agriculture and revitalize rural economies in the study area.

More specifically, this can be achieved among rural women agribusiness crop farmers through:

- Developing a competitive value chain through the use of grants to make crop production agribusiness more attractive and profitable.
- Improving rural road networks to encourage greater participation and access to production areas by women.
- Creating wholesale markets thus shortening the period between harvest and sale thereby reducing postharvest losses.

- Provision of water for irrigation to encourage crop production activities in and out of season.
- Creating access to improved seed varieties.
- Continuous research in Agricultural Education and innovation to constantly bring about efficiency in crop production processes among rural women.

Conclusion

Most of the rural women involved in agribusiness in Edo state have poor basic educational back ground which prevents them from progressing in their business. Their lack of education limits them on every index, impeding their ability to seek information that will enhance their agribusiness and preventing them from taking crucial decisions necessary for effecting the needed changes that would bring about increased profitability in their crop production agribusinesses. The women would also require education in core areas of crop production agribusiness particularly sourcing fund for their businesses and accessing information channels that will enhance their crop production agribusinesses. Profitable crop production agribusiness requires huge investments. Women if given the right support and through partnerships will make reasonable success in their crop production agribusinesses.

Recommendations

The following recommendations have been proffered based on the findings of this study.

1. Training in Agricultural Education should be organized specifically for women in Edo State and such training should be structured around financing agribusinesses and adoption of technologies that would reduce losses due to lack of storage facilities.
2. Structures have to be put in place by policy makers to facilitate access to finance and rural farms for the women involved in crop production agribusiness in Edo state.
3. Synergy must be established between relevant public and private sectors and partnerships together with NGO's involved in agriculture to create a determined and

proactive entity focused on making a change in crop production agribusiness in Edo state.

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