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Research Article

Resource Management Skills in Sorghum Growing Enterprise for Training Youths for Employment in Kwara and Kogi State, Nigeria

Abstract

The purpose of this study was to identify resource management skills in sorghum growing enterprise for training youths for employment in Kwara and Kogi State. The study adopted survey research design. Two research questions. The hypotheses were formulated and tested at the probability of 0.05. The study was carried out in Kwara and Kogi States. The population for the study was 499 made up of 199 teachers of agricultural science, 239 agricultural extension agents and 61 lecturers of agricultural education. The sample for the study was 257 made up of 100 teachers, 96 extension agents and 61 Lecturers. 40% proportionate stratified random sampling technique was used to select sample of teachers and extension agents while the entire population of the lecturers was involved in the study. The instrument used for data collection was a 36 resource management skills structured questionnaire which was face-validated by three experts 2 in the Department of Agricultural Education and 1 in the Department of Crop Production University of Nigeria, Nsukka. Cronbach alpha method was used to determine the internal consistency of the questionnaire items and a reliability coefficient of 0.87 was obtained. Two hundred and fifty seven copies of the questionnaire were distributed to the respondents with the help of four research assistants. All the copies of the questionnaire were retrieved and analyzed using weighted mean and standard deviation to answer the research questions while the hypotheses were tested using t-test statistics at the probability of 0.05. It was found out that all the 36 resource management skills identified in sorghum growing enterprise were required by youths. It was also found out that from the hypothesis tested that there is no significant difference in the responses of the three groups of the respondents on the 36 resource management skills in sorghum growing enterprise. The study Therefore, recommended that thirty six (36) identified resource management skills be packaged into a programme and sent to the skill acquisition centres for training youths and other interested individual for employment in Kwara and Kogi States,

Introduction

Managers and Economists traditionally have seen resource management as necessary experience rather than as a source of value to their organizations. Ede and Wale [1], defined resource as those things or facilities that enhance the accomplishment of organizational and institutional objectives. The authors further classified resources into human and material resources. Human resources according to them exists within people and consist of a person's potential abilities as well as current attributes which include energy, knowledge, talents, attitude among others which requires cognitive, affective and psychomotor abilities. Material resources in the opinion of Olaitanetal [2], are those facilities, equipment, machinery and consumables used in the laboratory or workshop for production process which requires management.

Management in the view of Amoyeda [3], is the process of allocating inputs human and material (resources) into production goods and serves by planning, directing and controlling them for purpose of producing out put that are demanded by the consumers so that organizational objectives can be successfully accomplished. Management according to Mamudu [4], is the efficient and effective development and allocation of organizational resources may include

human skills, production skills or information and technology. Resource management skills in the opinion Dimelu [5] is the ability of an individual to make use of available resources effectively to achieve the desired goal. Mohammed [6], sees resource management skills as the ability of a person to organizes, controls and directs human and material resources for its effective utilization in order to attain highest level of production. In study, resource management skills is the effective utilization of human and material resources through the process of organizing, controlling and directing such resources towards successful sorghum growing enterprise for youth employment and sustainability. Effective management of resources in sorghum growing requires skills.

Skills in the view of Etonyeaku [7], refers to as ability to put into use acquired competencies, attitudes and behavior after an exposure to theories and practices inherent in the field of study. It was further stated that skill is the capacity of a person to accomplish a task with desired precision and certainty to make a productive business or enterprise. Ogungbade, Alikali and Ibekwe [8], defined production as the process of changing or transforming input into output (product). The authors further stated that production is all activities which result in the creation of goods and services. Production in the study, mean all the activities involved in sorghum growing enterprise

(Land preparation to harvest). Ugwuoke and Ejiofor [9], defined an enterprise as an organization with partially overlapping objectives working together for some period of time in order to attain the stated objectives. The author further stressed that the actors utilizes technology, competency, information and other resources in order to transform input to products that can satisfy the needs of the customers. Many enterprises can be developed in sorghum production. Such enterprises include growing, processing and marketing.

Sorghum is a grain, forage or sugar crop and is among the most efficient crops in conversion of solar energy and use of water. Micheal [10], submitted that guinea corn. (*Sorghum bicolor*) originated from Africa. According to the author sorghum is an annual crop with solid erect stem supported by a large number of adventitious root (brace roots) which arise from the lower nodes of the stem. Abdullahi and Ajoku [11], explained that sorghum has wide leaves that are similar to those of maize crop but are easily distinguished from maize by toothed margins. The authors maintained that the crop tillers more than maize and the height depends on the cultivars that ranges from 0.6 to 3.6 meters. Importance of sorghum according to Muhammed [12], include feeding of livestock especially when converted to silage and hay, it serves as raw-material for brewery industries for production of beer drinks including Maltina and maltonic, sorghum grain is used as human food in various forms such as Tuwo, pap when adequately processed and prepared. In the submission of Ekele [13], sorghum constitute substantial amount of energy and protein in the diet of majority of people in Nasarawa State. The author further stated that sorghum is a good source of other nutrients such as calcium, iron, riboflavin, Niacine and among others.

Sorghum growing involves activities such as Land preparation, planting, post planting and harvesting for demand driven employment for secondary school graduates in the society. Employment in the view of Muhammed [12], is a job especially when it is carried out for earning an income for a living. The author classified employment into paid employment and self-employment. Paid employment according to the author involved a person at work performing during preference period at least one-three hours for wages or salaries either in cash or in kind self-employment as valued by the author, is work to be done in a form of an enterprise which may business enterprise or a form of enterprise or a service undertaken where an individual is not paid by any employer but makes his and pays himself. Therefore, secondary school graduates could be employed in any of the sorghum enterprise if they are well trained.

Training according to Osinem [14], is the process of equipping individual for world of work in a chosen area of skills that is, the process of learning skills that individual needs to carry out particular job. The author added that training cannot take place without necessary and adequate facilities including competent trainers such as youths and other interested individual in the society. Youths in the view of Onu [15], are mainly secondary school leaders who have finished their six years of study in secondary schools. United Nations General Assembly report (1995) stated that youths are young people of 15-24 years bracket. According to the report, this age may go up to 30 years in developing country like Nigeria. In the context of this

study, the youths are the unemployed or jobless senior secondary school leavers, polytechnics, college of education and university graduates that could be equipped with resources management [skills in sorghum growing enterprise for human survival in Kwara and Kogi States, Nigeria.

The researcher observed that most youths who graduated from secondary schools in kwara and Kogi States could not cope with agricultural production especially crops. This may be attributed to their inability to master the required skills which they must acquire in the course of their studies which will enable them to be engaged in any of the agricultural production programme. The lack of skills on the part of these youths resulted into unemployment and they continue roaming about looking white-collar job which are not available. Osinem [14], noted that youths with requisite education and skills are quickly absorbed into jobs while those without sufficient academic qualification or vocational skills live at subsistence level while many others remaining unemployed and out of desperation and prostration constitute nuisance to the society.

However, if those youths who suffer acute unemployment due to lack of required skills in crop production are given necessary training, they could satisfactory employment in sorghum growing so that they acquire skills with which to invest in profitable sorghum growing enterprise for economic growth in these states.

Therefore, the purpose of the study was to identify resources management skills in sorghum growing enterprise for training youths for employment in Kwara and Kogi State. Specifically the study sought to identify:

Material resources required for sorghum growing Skills in managing the material resources used for sorghum growing.

Research questions

The following two research questions guided the study:

1. What are the material resource required by youth for sorghum growing?
2. What are the skills in managing the resource used for sorghum growing?

Research hypotheses

The following hypotheses were generated and tested at the probability of 0.05 level of significance.

1. There is no significant difference in the mean ratings of the responses of lecturers, teachers of agricultural science and agricultural extension agents on the material resource required for sorghum growing.

The following hypotheses were generated and tested at the probability of 0.05 level of significance.

2. There is no significant difference in the mean ratings of the responses of lecturers, teachers of agricultural science and agricultural extension agents on skills in managing the material resource used for sorghum growing.

Methodology

Two research questions guided the study. The study adopted descriptive survey design: the study was carried out in Kwara and Kogi States. This design was suitable for the study since it sought information from registered lecturers, teachers of agricultural science and agricultural extension agents on the resource management skills in sorghum growing enterprise for training youths for employment in Kwara and Kogi States, Nigeria. The population for the study was 799 made up of 499 teachers of agricultural science in secondary schools, 239 agricultural extension agents and 61 lecturers in colleges of education in the area of the study. Sample for the study was made up of 200 teachers of agricultural science in secondary schools, 96 agricultural extension agents and 61 lecturers of agricultural education in colleges of education in the area of study. A 40% proportionate stratified random sampling technique was adopted for teachers and extension agents while the entire population of lecturers was involved in the study.

A 36 skill items questionnaire on resource management skills was developed from literature review and functions of industry for data collection for the study. The questionnaire adopted a four point response options of highly required (HR), averagely required (AR), slightly required (SR) and not require (NR) with a corresponding value of 4,3,2 and 1 respectively. The instrument was face validated by 3 experts 2 in the Department of Agricultural Education and 1 in the Department of Crop Production University of Nigeria, Nsukka. The suggestions and corrections of the experts were used to produce the final copy of the instrument. Cronbach alpha method was used to determine the internal consistency of the instrument and a reliability co-efficient of 0.87 was obtained.

357 copies of the questionnaire were distributed to the respondents with the help of four (4) assistants, 2 in each state (Kwara and Kogi). All the copies of the questionnaire were retrieved. The data was analyzed using weighted mean to answer the research questions and standard deviation to determine the spread of the respondents from the mean in their responses. The real limit of numbers was used to determine the skill items that are required as follow: 3.50-4.00 highly required, 2.50-3.49 averagely required, 1.50-2.49 slightly required and 1.00-1.49 not required. In taking decision, any item whose mean was 1.50 or above was regarded as required. The standard deviation was used to determine the closeness or other wise of the option of the respondents from the mean in their responses and from one another. Any item with standard deviation (SD) of 1.96 or below indicated the respondents are close to the mean and to one another and therefore, the item was valid which any item with a standard deviation (SD) above 1.96 indicated that the respondents are not close to the mean and one another and therefore, the item was not valid.

Results

Results for this study were obtained from the research questions answered through data collection and analyzed.

The results derived from the analyzed data are presented in this section. Answers are provided to research questions.

Research Question 1: what are the material resource required for sorghum growing enterprise?

The data for answering research question 1 are presented in **Table 1** below:

Data in **Table 1** showed that all the 18 material resource items had their mean values ranged from 3.33 to 3.74 indicating that their mean value were above the cut- off point of 2.50. The implication of this is that all the 18 items were required by youths for material resource required for sorghum growing enterprise in Kwara and Kogi States. The standard deviation values ranged from 0.06 to 0.98 indicating that the respondents were not too far from the mean and close to one another in their responses. The hypotheses tested revealed further that all the 18 items had their P-values greater than all alpha value of 0.05. This indicated that there was no significant difference in the mean ratings of three groups of respondents on all the 18 items required by youths in material resource required for sorghum growing enterprise. Therefore, the hypothesis of no significant difference was accepted for all the items.

Research Question 2: what are the skills in managing the material resources used for sorghum growing?

The data for answering research question 2 are presented in **Table 2** below:

Data in **Table 2** revealed that all the 18 management skill items had their mean values ranged from 3.23 to 3.62 indicating that their mean values were above cut-off point of 2.50. This implies that all the 18 items were required by youths for skills in managing the resources used for sorghum growing enterprise in Kwara and Kogi States. The standard deviation values ranged from 0.56 to 0.81 indicating that the respondents were no too far from the mean and close to one another in their responses. The hypotheses tested revealed further that all the 18 items had their P-values greater than the alpha value of 0.05. This indicated that there was no significant difference in the mean ratings of the three groups of respondents on all the 18 items required by youths in skills in managing the resources used for sorghum growing. Therefore, the hypothesis of no significant difference was accepted for all the items.

Discussion of Results

The results in **Table 1** revealed that all the 18 items required in material resources for sorghum growing. These include: Land for growing sorghum crop and building of farm structure, sorghum seeds for planting, fertilizers for supplying nutrients to crops, herbicides for controlling, weeds, and hoe for tilling the soil, weeding and planting of seed and 13 others. This findings were in conformity with the findings of Madeke in a study carried out on resources required for millet production in Zamfara state where it was found that material resources were required: cutlass for clearing bush, hoe for weeding, planting seed and tilling the soil, sickle for harvesting crop baskets and head pans for carrying farm inputs concrete floor for threshing grain among others. The findings of this study were also in consonance with the view of Jurge (2008), who stated that materials required in sorghum growing or production are: Land, buildings, machine seeds, fertilizers among others.

The results in **Table 2** revealed that the all 18 items were required in skills in managing the resources used for sorghum growing in

Table 1: Mean ratings and t-test Analysis of the Responses of Lecturers, Teachers and Agricultural Extension Agents on the Material Resource Required for Sorghum Growing. N:357.

S/N	Item Statements	X	SD	P-Value	Alpha-Value	Rmks	HO
1.	Land for growing sorghum crop and building of farm structure	3.51	0.66	0.09	0.05	Required	NS
2.	Sorghum seeds for Planting crop on the land	3.42	0.69	0.10	0.05	Required	NS
3.	Fertilizers for supplementary nutrient in the soil for sorghum plant up take	3.74	0.66	0.08	0.05	Required	NS
4.	Herbicide (chemicals) for controlling weeds in sorghum farm	3.44	0.69	0.07	0.05	Required	NS
5.	Apron plus/fernasan D for treating the seed Before sowing and Support even germination	3.33	0.81	0.21	0.05	Required	NS
6.	Irrigation equipment For supplying water to Sorghum crop in the farm	3.55	0.63	0.06	0.05	Required	NS
7.	Cutlass for clearing bush on the land before tilling it	3.53	0.63	0.09	0.05	Required	NS
8.	Hoe for tilling the soil, weeding and sowing for sorghum seed	3.68	0.62	0.15	0.05	Required	NS
9.	Tractor with implements such as disc, plough, disc-harrowing and ridging sorghum farm	3.37	0.64	0.22	0.05	Required	NS
10.	Basket and head pan for carrying small farm inputs to sorghum farm	3.43	0.66	0.21	0.05	Required	NS
11.	Sickle and knife for cutting heads during harvest	3.61	0.66	0.20	0.05	Required	NS
12.	Cart mounted on a tractor for transporting harvested sorghum heads to the house	3.53	0.68	0.08	0.05	Required	NS
13.	Long heavy stick for threshing sorghum grain or to separate grain from the heads	3.37	0.72	0.18	0.05	Required	NS
14.	Concrete floor for effective threshing sorghum and to obtain clean grain	3.48	0.69	0.07	0.05	Required	NS
15.	Threshing machine for easy separation of grain from the heads	3.39	0.69	0.09	0.05	Required	NS
16.	Tarpaulin and tray for winnowing grain	3.68	0.83	0.13	0.05	Required	NS
17.	Atelic dust (insecticide) for controlling insect pests at the storage bansor cribs	3.42	0.84	0.16	0.05	Required	NS
18.	Silo for storing threshed Sorghum grain for Processing or marketing	3.50	0.98	0.24	0.05	Required	NS

Key: X = Mean; SD = Standard Deviation; HR=Highly Required; AR = Averagely Required., PV= p-value, AV= alpha value, NS= not significant.

Table 2: Mean ratings and t-test Analysis of the Responses of Lecturers, Teachers and Agricultural Extension Agents on the Skills in Managing the Material Resource used for Sorghum Growing. N: 357

S/N.	Item statements	X	SD	P- Value	Alpha-Value	Rmks	HO
1.	Cultivate the land using appropriate implements at the right time of the year.	3.42	0.69	0.06	0.05	Required	NS
2.	Treat the seeds with the appropriate chemical (Adrex-T and Fernalan-d) before planting on the field.	3.54	0.60	0.08	0.05	Required	NS
3.	Apply the required quantity of fertilizer using appropriate method at the right time.	3.43	0.67	0.10	0.05	Required	NS
4.	Select appropriate herbicide to control weeds.	3.61	0.56	0.07	0.05	Required	NS
5.	Apply required quantity of herbicide at the appropriate time.	3.36	0.65	0.96	0.05	Required	NS
6.	Supply water for crop using appropriate irrigation facilities	3.32	0.71	0.07	0.05	Required	NS
7.	Service irrigate equipment/facilities for their effectiveness	3.23	0.81	0.22	0.05	Required	NS
8.	Store the farm tools such as hoes, cutlasses etc. under appropriate conditions	3.41	0.63	0.12	0.05	Required	NS
9.	Make use of the farm tools for appropriate operations	3.31	0.73	0.14	0.05	Required	NS
10.	Service the tractor and other machines as at when due.	3.45	0.62	0.08	0.05	Required	NS
11.	Clean the head of basket after use to prevent rusting	3.44	0.59	0.06	0.05	Required	NS
12.	Keep the sickle and knife away from the termites and faire attack.	3.42	0.72	0.13	0.05	Required	NS
13.	Keep the long threshing stick away from the termites and faire destruction	3.62	0.69	0.20	0.05	Required	NS
14.	Feed the threshing machine to the specification to prevent destruction.	3.45	0.70	0.23	0.05	Required	NS
15.	Hold the tarpaulin firmly for effective winnowing and to prevent distortion	3.46	0.59	0.07	0.05	Required	NS
16.	Keep the proper maintenance of concrete threshing floor.	3.47	0.62	0.08	0.05	Required	NS
17.	Apply appropriate quantity of atelic dust (insecticides) for controlling insect pests at the storage	3.28	0.76	0.14	0.05	Required	NS
18.	Keep the silo under good condition form storing threshed sorghum grain either for processing or marketing	3.48	0.57	0.09	0.05	Required	NS

Key: X = Mean; SD = Standard Deviation; HR=Highly Required; AR = Averagely Required, PV= p-value, AV= alpha value, NS= not significant.



Kwara and Kogi States. These skills are: cultivate the land using appropriate implements at the right time of the year, treat the seeds with the appropriate chemical, apply the required quantity and type of fertilizer using appropriate method at the right time, apply type and required quantity of herbicide at the appropriate time, supply water to crops using appropriate irrigation facilities among others. This findings were agreement with the findings of Ogungbade, Alikali and Ibekwe in a study carried out on a work skills required by secondary school graduates for entry into groundnut production in Kaduna State where it was found out that a skills were required in managing the material resources which include: weed the farm regularly, till the land as required and at the right time, treat seeds with appropriate fungicide before planting, clear the acquired land using appropriate tools among others.

The finding of the authors cited above help to validated the results of the study on the resource management skills in sorghum growing enterprise for training secondary school graduates for employment in Kwara and Kogi State, Nigeria. Findings on the hypothesis revealed that there was no significant difference in the mean ratings of the responses of the lecturers, teachers and extension agents on the 36 resource management. Skills in sorghum growing enterprise for training secondary school graduates for employment in Kwara and Kogi States. This indicated that the professional experience of the respondents in their various occupations did not significantly influence their responses and since the 36 management skill items were judged required, the three groups of respondents were in support of the management skills counting on their experience.

Conclusion

In Kwara and kogi states, large number of number of youths graduated from secondary schools without required skills on many occupations. These youths do not possess required skills for entering into agricultural occupations such as sorghum growing. A high percentage of them are roaming about the streets in these states trying to earn a living and probably cope with their age mates in wealth. Hence, they constitute nuisance and became problem to their parents, society and even governments in terms of sustenance. Therefore, the study was carried out to identify resource management skills in sorghum growing enterprise for training youths for employment in Kwara and Kogi States, Nigeria. The study found out 18 material resource skills and 18 skills in managing the resources for sorghum growing enterprise were required by youths for employment in Kwara and Kogi States.

It was therefore recommended that the 36 resource management skills identified by this study be packaged into training programme and used for training youths for employment in Kwara and Kogi States. The identified resource management skills could also be used by skill acquisition centres to train those youth and others who may be interested in sorghum growing business.

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