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Entrepreneurial Skills Needed by Secondary School Dropouts for Harvesting and Marketing of Periwinkle as a Source of Livelihood in Olamaboro LGA, Kogi State, Nigeria

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ABSTRACT

The study was carried out to identify Entrepreneurial Skills Needed by Secondary School Dropouts for Harvesting and Marketing of Periwinkle as a Source of Livelihood in Calabar. Two research questions guided the study and two null hypotheses were tested in the study. The study adopted a survey research design and the population of the study was 224 registered periwinkle harvesters in the study area from which a sample of 156 was selected through accidental sampling technique. The instrument used for data collection was questionnaire titled Skills Needed for Harvesting and Marketing of Periwinkle Questionnaire (SNHMPQ) which was face validated by three experts in the Department of Vocational Education in University of Calabar. The reliability of the instrument was determined using Cronbach alpha technique which yielded a reliability coefficient of 0.92. The data obtained was analyzed using independent t-test analysis to test the null hypothesis at a 0.05 level of significance while mean and standard deviation were used to answer the research questions. The findings revealed that all the identified skilled items in the area of harvesting and marketing were needed by secondary school dropouts for harvesting and marketing of periwinkle. Based on the findings, it was recommended that the identified skills should be included into secondary schools curriculum for students and be packaged as a training programme for the dropouts which could help them to be self reliant and self sustaining.

Keywords: *Entrepreneurial, Skills, Periwinkle, Dropouts, Harvesting, Marketing, Livelihood.*

INTRODUCTION

Periwinkle (*Tympanotonus fuscatus*) is a shell fish gastropod found in brackish water, a genus tympanotonus of the family potamididae and a super family cerithioidea. Periwinkles are native to mangrove swamps. According to Dambo (2010) Periwinkle is one of the most consumed sources of protein in meal across the South-southern part of the country with two species (*Tympanotonus fuscatus* and *Pachymelania aurita.* Periwinkle is a common sight in Nigeria markets, cities and villages. They are often sold by local market women consumed by many Nigerians as a cheaper source of protein.

Esther, Audu and Robert (2007) explained that Tympanotonus fuscatus is characterized by granular and spiny shells with tapering end. It is a bisexual and are both found in brackish water creeks and mangrove swamps, the shell is dark and hard which serve as protection for the gastropod. Its shell reaches a size of about 35-50 millimeters (1.4 - 3.9in) at maturity. It primarily feeds on algae, mud and other small invertebrates through the use of their radular and can live as long as two to six years.

The periwinkles flesh is edible and also used as bait by fishermen. They are rich in protein (about 21%), vitamins and minerals (Egonmwan, 2002). The organism is also very medicinal for cases like endemic goiter due to its iodine content. The calcium, phosphate and iron content, also makes it recommendable for pregnant women. The periwinkle shell is grounded for several purposes such as powder for pimples, cleaners (e.g. vim for washing), as fertilizers and as calcium source in animal feeds (Grolier, 2009). Other uses include building construction, ornamental and cosmetics.

Periwinkle harvesting and marketing is a good enterprise in which farmers invest their resources to generate income. For economic success in periwinkle harvesting and marketing an entrepreneur would require effective management skills. Entrepreneur as submitted

by Onwuka and Olaitan in Oko (2015), are people who create and manage a business undertaking bearing the risk for the sake of profit. Etuk (2012) viewed entrepreneurship as a process through which individual, and/or government either on their own or jointly exploit available economic opportunities without being scared. In the context of this research, an entrepreneur is a secondary school dropouts who takes an idea and opportunity in periwinkle harvesting and marketing to turn them into a profitable enterprise by harnessing the necessary skills and resources to manage the business involved. To enable the secondary school dropouts do these, they need the necessary skills.

Skill according to Osinem and Nwoji (2005) is the ability of a person to perform an act expertly. Continuing, the authors stated that, it is therefore a practice ability or proficiency displayed in the performance of the task. Similarly Okorie in Bassey (2013) explain that skills are a well established habit of performing task in a manner acceptable by workers in the profession. In the context of this study, skills are those abilities needed by periwinkle farmers to succeed in their periwinkle harvesting and marketing business. These skills are needed in planning, swimming, harvesting and marketing. Periwinkle harvesting and marketing in Cross River state is carried out by very aged men and women in no formal organized settings and thus not entrepreneurial. A successful entrepreneurship in the context of this study is based on the possession of a set of skill. According to Ademiluyi (2007), entrepreneurship skills are simple business skills which individual acquire to enable them effectively function in turbulent business environment as an entrepreneur or self employed. These skills by secondary school dropouts to make them useful to themselves and the wider society. In this study secondary school dropouts are those students that could not complete their secondary school education at any level due to reasons ranging from broken homes, peer group influence, health problems, financial incapability and school instability. This would reduce unemployment and crime among the secondary school dropouts as well as alleviate poverty in the state. Besides they would contribute positively towards increasing supply of periwinkle.

Statement of the Problem

Students dropping out of school is on the increases in Cross River State. This could be attributed to peer group influence, financial incapability, school instability and guardian/ sponsorship discontinuity either as a result of death or retirement from active service. These students thus discontinue schooling. The resultant effect are that the Secondary School dropouts are found roaming the streets and often getting involved in such anti-social behavior like gambling, stealing and prostitution to earn a living. These means of earning a living affects the people of Cross River state adversely. In other to reduce the above mentioned menace, the Government of Cross River State established entrepreneurial skill acquisition centers to help in retraining the youths, secondary school dropouts, and the general public that have no occupation or skills.

The researchers observed that even with the efforts of the State Government, this category of persons (Secondary school dropouts) still lack the requisite training that could make them skilled for employment especially in the area of Periwinkle harvesting and Marketing. As a result of these lack of skills, these individuals could not employ themselves, neither are they employable by employers of labour. It is in the light of this that the researchers identified skills in periwinkle harvesting and marketing to be integrated into the training modules of the Entrepreneurship centers in order to generate willingness on the part of these secondary school dropouts to become interested in periwinkle harvesting and marketing with the view to reduce if not stop their involvement in social vices, hence this study.

Purpose of the Study

The general purpose of this study was to identify the entrepreneurial skills needed by secondary school dropouts for harvesting and marketing of periwinkle in Calabar, Cross River State. Specifically, the study sought to identify the skills needed by secondary school dropouts in harvesting and marketing of periwinkles.

Research Questions and Hypotheses

The following research question guided this research work:

1. What are the harvesting skills needed by the secondary school dropouts for periwinkle.

2. What are the marketing skills needed by the secondary school dropouts for sale of periwinkle.

The following null hypotheses were formulated and tested at 0.05 level of significance.

Ho1 There is no significant difference in the mean ratings of male and female periwinkle harvesters on the harvesting skills needed by secondary school dropouts for periwinkle.

Ho2 There is no significant difference in the mean ratings of male and female periwinkle harvesters on the marketing skills needed by secondary school dropouts for sale of periwinkle.

METHODOLOGY

This study adopted a survey research design. The study was carried out in Calabar, Cross River State. The population was 224 registered periwinkle harvesters (Agricultural Unit of the Local Government). This population comprised of 187 male and 37 female periwinkle harvesters. This study utilized the accidental sampling technique. The sample of this study was 156 periwinkle harvesters comprising of 141 male and 15 female periwinkle harvesters which represented 70% of the population. The instrument utilized for data collection in this study was a questionnaire, developed and design by the researchers. The questionnaire was face-validated by three experts in the Department of Vocational Education, University of Calabar, Calabar. The reliability of the instrument was determined using Cronbach alpha technique which yielded a co-efficient of 0.92 indicating that the instrument is 92% reliable. The research utilized the assistance of three Extension Agents in the Agricultural Unit of calabar municipality local government area of cross river state for data collection.

The instrument was coded based on the four point response scales of Highly needed (4 points), Needed (3 points), Slightly needed (2 points) and Not needed (1 point). The scores of each respondent were summed together and the score obtained from each item with their corresponding standard deviation were manipulated to answer the research questions and test the hypotheses. In answering the research question item with a score of 0.00 to 1.00 indicate that the skill is not needed while any item with the mean score 1.1 to 4.0 indicate that the skill item is needed and to test the hypotheses, independent t-test analysis was utilized.

RESULTS

Research question 1 and hypothesis 1

What are the harvesting skills needed by secondary school dropouts for harvesting of periwinkle? The data for answering question 1 is presented on table 1.

Table1. *Mean and standard deviation (SD) of harvesting skills needed by secondary school dropouts in periwinkle harvesting*

S/N	Harvesting Skills	Mean	Sd	Remark
1.	Search for matured periwinkles	2.20	1.48	Needed
2.	Trap matured periwinkles	2.86	1.69	,,
3.	Gather matured periwinkles	3.35	1.83	,,
4.	Mine or remove periwinkle from the sea bed	3.07	1.75	,,
5.	Note minimum harvesting size	3.16	1.78	,,
6.	Harvest adult periwinkles	3.02	1.74	,,
7.	Determine weight of periwinkle to carry while moving towards the boat	2.97	1.72	,,
8.	Use seine net in harvesting periwinkles	2.74	1.66	,,
9.	Use lift net in periwinkle harvest	2.49	1.58	,,
10.	Use cast net in periwinkle harvesting	3.22	1.79	,,
11.	Use gill net in periwinkle harvesting	3.19	1.79	,,
12.	Use woven basket in periwinkle harvesting	3.11	1.76	,,
13.	use harvesting box in periwinkle harvesting	3.33	1.82	,,
14.	Use dredges to harvesting periwinkle	2.57	1.60	,,
15.	Use rake during periwinkle harvesting	3.37	1.84	,,
16.	use dip net in periwinkle harvesting	2.79	1.67	,,
17.	Use fork for periwinkle harvesting	3.14	1.77	,,
18.	Grade to select matured periwinkle	2.89	1.70	,,
19.	Weigh harvested periwinkle	2.61	1.62	,,
20.	Harvest periwinkle using tongs	3.23	1.80	,,

The data on table 1 showed the mean scores of respondents and their standard deviations on the harvesting skills needed by periwinkle harvesters. The data showed that the mean of the skill items in harvesting ranged between 2.20 (item 1) and 3.37 (item 18) and all greater than 1.00. This indicated that all the skill items in harvesting for periwinkle are needed by periwinkle harvesters. The standard deviation of all the items are not far from one another, this thus strengthen the decision.

Hypothesis 1

There is no significant difference in the mean ratings of male and female periwinkle harvesters on the harvesting skills needed by secondary school dropouts in the harvesting of periwinkles. This null hypothesis was tested using independent t-test analysis. The analysis is presented on table 2:

Table2. *Independent t-test analysis to determine the difference in mean rating of male and female periwinkle harvester on the harvesting skills in periwinkle harvesting*

Variables	N	Mean	SD	t-cal
Male periwinkle harvesters	141	30.98	5.57	1.25
Female periwinkle harvesters	15	29.10	5.39	

P. < 0.05; df = 154; t-tab = 1.960

The analysis on table 2 showed that the calculated t-value of 1.25 was found to be less than the table t-value of 1.960 when tested at 0.05 level of significance with 154 degree of freedom. This implies that there is no significant different in the mean ratings of male and female periwinkle harvesters on the harvesting skills needed for periwinkle harvesting. Thus the null hypothesis was retained while the alternate hypothesis was rejected.

Research question 2 and hypothesis 2

What are the marketing skills needed by secondary school dropouts for sale of periwinkle? The data for answering question 2 is presented on table 3.

Table3. *Mean and standard deviation (SD) of marketing skills needed by secondary school dropouts in periwinkle harvesting*

S/N	Marketing Skills	Mean	Sd	Remark
1.	Find buyers or search for market	2.14	1.46	Needed
2.	Determine what type of market is available	1.94	1.39	,,
3.	Assemble enough product together for shipment	3.02	1.74	,,
4.	Determine the cost of various type of shipment	2.21	1.49	,,
5.	Grade, sort and standardize the product	2.55	1.60	,,
6.	Process the produce into suitable form	2.30	1.52	,,
7.	Determine the most profitable form of marketing the product	3.10	1.76	,,
8.	Determine transportation cost to market at each of the market available	3.06	1.75	,,
9.	Distribute and transport the products	1.99	1.41	,,
10.	Store the products	2.00	1.41	,,
11.	Package the products	2.95	1.72	,,
12.	Advertise and promote the product	3.00	1.73	,,
13.	Fix prices for the product	3.04	1.74	,,
14.	persuade buyers	3.09	1.76	,,
15.	Communicate well	2.50	1.58	,,
16.	Record financial transactions	2.84	1.69	,,
17.	Bear risk	2.98	1.73	,,

The data on table 3 showed the mean scores of respondents and their standard deviations on the marketing skills needed by periwinkle harvesters. The data showed that the mean of the skill items in harvesting ranged between 1.94 (item 2) and 3.10 (item 7) and all greater than 1.00. This indicated that all the skill items in marketing for periwinkle are needed by periwinkle harvesters. The standard deviation of all the items are not far from one another, this thus strengthen the decision.

Hypothesis 2

There is no significant difference in the mean ratings of male and female periwinkle harvesters on the marketing skills needed by secondary school dropouts in the harvesting and marketing of periwinkles. This null hypothesis was tested using independent t-test analysis. The analysis is presented on table 4:

Table4. *Independent t-test analysis to determine the difference in mean rating of male and female periwinkle harvester on the marketing skills in periwinkle harvesting*

Variables	N	Mean	SD	t-cal
Male periwinkle harvesters	141	33.29	5.77	
Female periwinkle harvesters	15	32.97	5.74	0.20

P. < 0.05; df = 154; t-tab = 1.960

The analysis on table 4 showed that the calculated t-value of 0.20 was found to be less than the table t-value of 1.960 when tested at 0.05 level of significance with 154 degree of freedom. This implies that there is no significant different in the mean ratings of male and female periwinkle harvesters on the marketing skills needed for periwinkle harvesting. Thus the null hypothesis was retained while the alternate hypothesis was rejected.

DISCUSSION

The first hypothesis which was tested in the null form that there is no significant difference in the mean rating of male and female periwinkle harvesters on the harvesting skills needed by secondary school dropouts for harvesting and marketing of periwinkles was tested at 0.05 level of significance with 154 degree of freedom. The result revealed that the difference in the mean ratings of male and female periwinkle harvesters do not differ significantly. This means that all the 21 skill items in harvesting were needed for harvesting and marketing of periwinkle. The finding was in agreement with Oko (2015). Who opined that, periwinkle harvesting is the process of gathering matured periwinkles from the sea bed, it marks the end of growing for a particular periwinkle. Similarly, Ande in Bassey (2013) explain that harvesting is a process of gathering agricultural produce both plant or animal which has reached it matured state of consumption. The author suggested that during harvesting, periwinkles that are not matured should not be harvested.

Hypothesis two was tested in the null form that there is no significant difference in the mean rating of male and female periwinkle harvester on the marketing skills needed by secondary school dropouts for harvesting and marketing of periwinkles was tested at 0.05 level of significance with 154 degree of freedom. The result revealed that the difference in the mean ratings of male and female periwinkle harvesters do not differ significantly. This means that all the 17 skill items in marketing were needed for harvesting and marketing of periwinkle. The result of the study is in conformity with Mizelle (2009), who revealed that marketing encompasses all those activities necessary to effectively price promote, and distribute food products to the consumers. This is also in consonance with Osuala (2006) who asserted that marketing is the process by which the productive potentials of a company is used to satisfy individual and social needs of all kinds.

CONCLUSION

The finding of these study showed that all the 37 skill items identified in the study were needed by secondary school dropouts for the harvesting and marketing of periwinkle. Therefore the need to educate this building population of secondary school dropouts to be properly trained in this areas (periwinkle harvesting) so that they would find themselves self employed or be employed by other periwinkle harvesters to enable them make a living. This could assist in reducing the social menace posed by dropouts as a result of idleness and also could contribute to the social-economic well being of their individual families and even to a large extent their community and nation as a whole.

RECOMMENDATION

The secondary school dropouts could benefit from the research through the identified skills that should be packaged into programmes that would be organize by the schools as well as the entrepreneurial centers, this could make them self reliant and self sustaining. The curriculum planners of the secondary school could also be advised to integrate the identified skill into the school curriculum these could provide avenues for teachers to use this curriculum effectively to teach the student this skills and the students will then become acquainted with this and so doing becomes interested in the business of periwinkle harvesting and marketing after dropping out from school.

If teachers of agricultural science effectively teach the skills areas of the curriculum by making the student to perform the skill while in school. These could make the secondary school

dropouts to become acquainted with these skill performance, usage could create interest in the student in engaging in the business. If future researchers are privileged to read this work it could make them to identify the gap that is yet to be recovered thereby researching to cover the gaps.

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