CHALLENGES OF UTILIZING ENTREPRENEURIAL SKILLS AMONG TECHNOLOGY EDUCATION LECTURERS AND TECHNICIANS IN TERTIARY INSTITUTIONS IN NIGER STATE

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Abstract

This study was conducted to investigate the challenges of utilizing entrepreneurial skills among technology education lecturers and technicians in tertiary institutions in Niger State. Two research questions and 2 null hypotheses guided the study. A survey research design was adopted. The population of the study was all the 51 technology education lecturers and 13 technicians from the two institutions offering technology education programme in Niger State. A validated instrument which contained 20-items was used for data collection. A reliability coefficient of 0.84 was determined using Cronbach Alpha method. The data was analyzed using mean rating and t-test in answering the research questions and for testing the null hypotheses respectively. Findings of the study revealed that poor knowledge of accounting, inability to apply market knowledge and skills as well as poor knowledge on how to manage risks in business are the major challenges of utilizing of entrepreneurial skills. The findings also revealed other major challenges to include: inability to secure capital to start business, lack of adequate practical skills and poor knowledge of information communication technology (ICT) for business transactions. The result of hypotheses tested revealed no significant difference. In view of the findings, it is recommended among others that, regular training on entrepreneurship education should be organized for technology education personnels and the government should provide financial support in the provision of workshop tools, machines and equipment for entrepreneurs.

Keywords: Challenges, Entrepreneurial Skills, Lecturers, Technicians and tertiary institutions

Introduction

The concept of entrepreneurship deals with several activities concerned with the establishment and operation of business enterprise. Entonyeaku and Ajaja (2010) defined entrepreneurship as an employment strategy that can lead to economic self-sufficiency for people. Self-employment provide people with potentials to create and manage business in which they function as the employer rather than merely being an employee. Inegbeobor (1989) in Kolo and Gara (2008) view entrepreneurship as the willingness and ability of individual to seek out investment opportunities, establish and run an enterprise successfully. According to Kuratko (2003), entrepreneurship is a dynamic process of vision change and creation, an integral concept that permeates an individuals business in an innovative manner.

Entrepreneurship therefore can be conceptualized as the ability to be creative, utilizing opportunities available for both self-sustenance and contributing to the need of others. Entrepreneurship education as a form of education that seek to prepare people, to be responsible and enterprising individual who become entrepreneurs and entrepreneurial thinkers and who contribute to economic and sustainable communities (Consortium for Entrepreneurship Education, 2005). Thus, anyone who could take initiative of starting and running small or large business effectively could be called an entrepreneur. In the words of Ajiye (2005), every successful entrepreneur takes business initiative to enviable heights in relation to business size and return on equity.

Technology education can be aptly described as the education geared towards skills acquisition in handwork for self-reliance. Ajinuhi (2005) views technology education as the systematic

learning experiences which are designed to fit individuals for gainful employment in recognized occupation such as semi-skilled workers or technicians or sub-professional. Aluwong (2008) also explained that technology education has the potential role of transforming the nation economically and technologically. He further stressed that technology education is designed to develop skills, abilities, understanding, attitudes, work habit and appreciation encompassing knowledge and information needed by workers to enter and make progress in employment in a useful and productive manner. As a veritable tool for sustainable development, technology education is a spring board to socio-economic growth and development. Keshinro (2005) asserted that technology education is an action based programme with an ultimate goal of preparing individual for employment in relevant and recognized occupation. Kurya and Hassan (2007) also recognized technology education as a major vehicle for widening access to education, lifelong learning skills acquisition for sustainable livelihood. Sustainable and comfortable living depends on the ability of the citizens to innovate needed products and render services required in most economical, efficient and effective way. The realization of this is propelled by technology education lecturers.

Technology education lecturers are personnel trained to impart basic scientific and practical skills with the aim of empowering the beneficiaries socially and economically by inculcating in them, manipulative skills, manual dexterity, creativity, respect for dignity of labour and healthy attitude towards technology. While technicians are skilled workers in specialized area of technology at a sub-professional level. The two categories of personnel work together complementarily to realize the goals of technology education as stated by Federal Republic of Nigeria (2004) which include: providing training manpower in the applied sciences, technology and business, particularly at craft, advanced craft and technical levels, providing the technical knowledge necessary for commercial economic development; giving training and imparting skills on individual who shall be self-reliant economically. The national policy on education further stated that in pursuance of the goals of technology education, the trainees of technology education are expected to have three options: secure employment either at the end of the whole programme or after completing one or more modules of employable skills; set up their own business and become self-employed and be able to employ others or pursue further education.

Thus, the inclusion of entrepreneurship training in technology education is desirable. The educators and skilled workers who impart practical and entrepreneurial skills on others are also expected to use their acquired skills to be entrepreneurs and earn more income, rather than depending on the monthly wages. Entrepreneurship in technology education according to Garba and Kazeem (2006) is creating ventures that are technical in nature. They further explained that for entrepreneur in this field to excel, some of the expected functions include: initiating and running a business to include determining the consumer needs and wants; organize the resources (human and material), bear all the risks and make decision relative to profit, cost benefit analysis and size of the business.

However, it is surprising to observe that most of these educators of technology education are often unable to market their saleable skills or set up business ventures, despite the opportunities of entrepreneurship that abounds in the field of technology education. Apart from utilizing these skills in training others, by implication, they are also equipped to create wealth by being employers of labour, because they (Technology education Lecturers and Technicians) possess adequate skills to become entrepreneurs in the society but often fail to cope with the challenges of converting the acquired skills to entrepreneurship. In this global technological innovative age, when more emphasis is being laid on entrepreneurship, is it not apposite for these personnels of technology education to maximize the use of their skills in setting up business ventures and boost their monthly income and also as a preparation towards retirement from public service? hence this study investigate the challenges that inhibit these trainers of technology education graduates from utilizing their entrepreneurial skills and identify ways of tackling the challenges.

The purpose of this study is to find out the challenges of utilizing entrepreneurship skills among technology education lecturers and technicians in higher institutions in Niger State specifically, the study will:

(i). Determine the challenges of utilizing entrepreneurial skills among technology education lecturers and technicians.

(ii). Determine ways of tackling the challenges of utilizing entrepreneurial skills among technology education lecturers and technicians.

Research Questions

Two research questions guided this study:

(i). What are the challenges of utilizing entrepreneurial skills among technology education lecturers and technicians?

(ii). What are ways of tackling the challenges of utilizing entrepreneurial skills among technology education lecturers and technicians?

Hypotheses

Two null hypotheses were tested at 0.05 level of significance

$H0_1$ There is no significant difference between the mean rating of technology education lecturers and technicians with regard to the challenges of utilizing entrepreneurial skills.

$H0_2$ There is no significant difference between the mean rating of technology education lecturers and technicians with regards to ways of tackling the challenges of utilizing entrepreneurial skills.

Methodology

The study adopted survey research design, because it involved eliciting information from the respondents. Osuala (2005) stated that survey research method is appropriate when survey focuses on individual belief, opinion, attitude, motivation and behaviour. The population of this study consisted of 51 technology lecturers and 13 technicians in the School of Technical Education, Niger State College of Education Minna and Department of Industrial Technology Education, Federal University of Technology, Minna. The choice of the two institutions is based on the fact that, they are the only institutions that offer technology education in Niger State. All the 51 lecturers and 13 technicians were used for the study. Therefore, no sampling was carried out. This was because of the few numbers of lecturers and technicians in the two institutions. Thus, a total of 64 respondents were used in the study.

In collecting data, a four point scale questionnaire was used. It has three sections covering respondent's bio-data, items on challenges of utilizing entrepreneurial skills and items on ways of tackling the challenges of utilizing entrepreneurial skills. The response mode was strongly agree, agree, disagree and strongly disagree. The instrument was face validated by three experts in the area of technology education and entrepreneurship education from School of Technical Education, Niger State College of Education Minna and Department of Industrial Technology Education, Federal University of Technology, Minna. The reliability co-efficient of the instrument was computed using Cronbach Alpha and a value of 0.84 was obtained.

Data collected were analyzed using mean and standard deviation to answer research questions. A mean score of 2.50 and above on a four rating scale was considered accepted, while mean scores below 2.50 was considered not accepted. t-test statistics was used to test the null hypotheses at 0.05 level of significances.

Results

Table 1: Mean rating of technology education lecturers and technicians on the challenges of utilizing their entrepreneurial skills

S/N	Items	Lecturers			Technicians		
		$\bar{X}$	SD	Decision	$\bar{X}$	SD	Decision
1.	Inability to apply market and skills	3.33	0.93	Agree	3.15	1.14	Agree
2.	Poor knowledge of accounting/difficulties in interpreting financial Statement	3.39	0.94	Agree	3.70	0.65	Agree
3.	Inability to secure capital to start business	3.78	0.54	Agree	3.77	0.43	Agree
4.	Lack guidance on how to manage risk in business	3.37	0.95	Agree	3.54	0.67	Agree
5.	Lack of institutional support for entrepreneurship education	3.35	0.91	Agree	3.08	1.04	Agree
6.	Inability to manage time to meet job schedules	3.18	1.09	Agree	3.15	1.07	Agree
7.	Lack of adequate practicals skills	2.80	1.16	Agree	2.92	1.11	Agree
8.	Inability to determine what quality of products customers would need	2.82	1.14	Agree	3.08	1.04	Agree
9.	Inability to relate and communicate effectively with customers	2.01	0.90	Disagree	1.62	0.77	Disagree
10.	Inability to be competitive in business	3.15	0.94	Agree	3.15	0.99	Agree
11.	Difficulties in making long and short term planning	3.22	1.08	Agree	3.39	0.77	Agree
12.	Irregular electricity to power tools, machines and equipment	3.37	0.89	Agree	3.38	0.96	Agree
13.	Poor knowledge of ICT for business transaction	3.13	1.09	Agree	3.62	0.65	Agree

Key: $\bar{X}$ = mean SD = Standard deviation

Table 1 present the views of the respondents with regard to the challenges of utilizing their entrepreneur skills. The table shows that all the items except item 9 had a mean rating above the out off point of 2.50 by both technology education lecturers and technicians, while responses on item-9 by both lecturers and technicians had mean rating below the criteria mean of 2.50. However, the researcher observed that items 2, 3, and 4 had the highest mean rating of 3.39, 3.78 and 3.37 respectively by the lecturers, while technicians rated them 3.70, 3.77 and 3.54. This indicates that

the major challenges of utilizing entrepreneurial skills are poor knowledge of accounting, inability to secure capital to start business and lack of guidance on how to manage risks in business. The technicians also rate poor knowledge of ICT for business transaction as a challenge of utilizing entrepreneurial skills with a high mean of 3.62.

Table 2: Mean rating of technology education lecturers and technicians on how the challenges of utilizing entrepreneurial skills be tackled

S/N	Items	Lecturers			Technicians		
		$\bar{X}$	SD	Decision	$\bar{X}$	SD	Decision
1.	Regular training on Entrepreneurship Education	3.55	0.58	Agree	3.62	0.65	Agree
2.	Easy access to loan by prospective entrepreneur	3.76	0.47	Agree	3.77	0.66	Agree
3.	Financial support by the gov't in the provision of workshop tools and equipment	3.61	0.53	Agree	3.54	0.78	Agree
4.	Fostering linkages between technology education institutions and industries to update the knowledge skills of lecturers/technicians	3.57	0.54	Agree	3.69	0.63	Agree
5.	Subsidizing the cost of Workshop tools machinery and equipment for entrepreneurs	3.65	0.52	Agree	3.62	0.65	Agree
6.	Introduction of special health Insurance scheme for industrial Entrepreneurs	3.82	0.39	Agree	3.62	0.77	Agree
7.	Adequate training on ICT, in order to effectively use websites for business transactions	3.40	0.83	Agree	3.69	0.63	Agree

Key: $\bar{X}$ = mean SD = Standard deviation

Table 2 present the views of the respondents with regard to how the challenges of utilizing entrepreneurial skills can be tackled. The table revealed that all the items had a mean rating above 2.50 by both technology education lecturers and technicians. Specifically items 6, 2 and 3 had the highest mean rating of 3.82, 3.76 and 3.61 respectively by lecturers while item 2, 4 and 7 had highest mean ratings of 3.77, 3.69 and 3.69 respectively by Technicians, indicating that the respondents agreed that the challenges of utilizing entrepreneurial skills can be tackled through the provision of special health scheme for industrial entrepreneurs, easy access to loan for prospective entrepreneurs, financial support in the provision of workshop tools among others.

Hypothesis One

There is no significant difference between the mean rating of technology education lecturers and technicians with regard to the challenges of utilizing entrepreneurial skills.

Table 3: t-test Analysis of the opinion of Technology Education Lecturers and Technicians on the challenges of utilizing entrepreneurial skills

S/N	Respondents	N	$\overline{X}$	SD	Df	t-value	Sig(2tailed)
1.	Lecturers	51	3.16	0.93			
2.	Technicians	13	3.19	1.02	62	0.261^{ns}	0.796

ns = Not significant at P> 0.05 level

The table revealed that t-value is 0.261 at 62 degree of freedom and 0.05 level of significance, while s-value is 0.796 indicating no significance (P>0.05). The null hypothesis is accepted as stated. Therefore, there is no significant difference between the mean rating of technology education lecturers and Technicians with regard to the challenges of utilizing entrepreneurial skills.

Hypothesis Two

There is no significant difference between the mean rating of technology education lecturers and technicians with regards to ways of tackling the challenges of utilizing entrepreneurial skills.

Table 4: t-test analysis of the opinion of Technology Education Lecturers and Technicians on how the challenges of utilizing entrepreneurial skills can be tackled

S/N	Respondents	N	$\overline{X}$	SD	df	t-value	Sig(2tailed)
1.	Lecturers	51	3.52	0.52	62	0.456	0.656
2.	Technicians	13	3.61	0.53			

ns = Not significant at P> 0.05 level

The data presented in table 4 revealed that t-value is 0.456 at 62 degree of freedom and 0.05 level of significance, while s-value is 0.656 indicating no significant (P>0.05). The null hypothesis is accepted as stated. Therefore, there is no significant difference between the mean rating of technology education lecturers and technicians with regard to how the challenges of utilizing entrepreneurial skills can be tackled.

Discussion

Research question one sought to find out the challenges of utilizing entrepreneurial skills among technology education lecturers and technicians? From the results, both lecturers and technicians agreed on 12- items on the challenges of utilizing entrepreneurial skills. It is only item-9, that lecturers and technicians disagreed with, which means that inability to relate and communicate effectively with customers does not pose as a challenge in utilizing entrepreneurial skills. This may be because of the level of their educational attainment. However, both lecturers and technicians agreed that inability to apply market knowledge and skills, poor knowledge of accounting, inability to secure capital to start business, lack of guidance on how to manage risk in business, lack of institutional support for entrepreneurship education among others, are the major challenges of utilizing entrepreneurial skills. This finding agrees with that of Antanwu (2010) who stated that the challenges of empowering youths for sustainable development through an assessment of entrepreneurship skills includes: inability to secure capital to set up business venture, lack of information on how to manage business and lack of institutional support in encouraging entrepreneurial interest among the youths. Similar view was also shared by Etonyeaku and Ajaja (2010) that the challenges of youth empowerment through skills development included inability to obtain loan to start business, inability to apply market skills, inability to manage time to meet job schedules among others. Thus emphasis should be placed on entrepreneurship training.

Research question two sought to find out how the challenges of utilizing entrepreneurial skills among technology education lecturers and technicians can be tackled? The findings shows that both lecturers and technicians agreed on all the 7- items on how to tackle the challenges of utilizing entrepreneurial skills with mean rating above 3.40 and 3.54 respectively. The finding further revealed that regular training on entrepreneurship education, easy access to loan and financial support by the government in the provision of workshop tools, machines and equipment are the major challenges of utilizing entrepreneurial skills among technology education lecturers and technicians. Bala, Makun and Abubakar (2013) also identified regular retraining of staff in entrepreneurial skills and establishment of institutions that will give loan to prospective entrepreneurs with low collateral as a way of tackling challenges of entrepreneurship. Yemisi (2004) also corroborated this finding by advocating for government intervention in given out loans to entrepreneurs. In support of this, Garba and Kazeem (2006) urged the government to introduce special loan with single digit interest for intending entrepreneurs and provision of machine tools and materials that would be required for the take off a vocational technical trade ventures.

Conclusion

Several challenges have inhibited the utilization of entrepreneurial skills by both technology education lecturers and technicians in tertiary institution in Niger State as revealed by the findings of this study. Given the entrepreneurship potentials in supporting individual economic growth and social cohesion, there is the need for technology education personnel to utilize their entrepreneurial skills, especially in this global technological age when more emphasis is being laid on entrepreneurship as an employment strategy that leads to self-sufficiency for people who can use their skills and creativity to be employers of labour.

Recommendations

Based on the findings, the following recommendations are made:

(i) Regular training on entrepreneurship education should be organized for both technology education lecturers and technicians in tertiary institutions.
(ii) Government at all levels should provide financial support in the provision of workshop tools, machines and equipment.
(iii) Government should provide loans for prospective entrepreneurs in technical trades.
(iv) A special health scheme should be worked out for the entrepreneurs in technical trades.
(v) The federal government should introduce a policy that will foster linkages between industries and institutions of technology education to enable both lecturers and technicians acquire adequate practical skills through staff retraining scheme.

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