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STUDENTS' INDUSTRIAL WORK EXPERIENCE SCHEME (SIWES): FUNDAMENTAL LINTEL FOR PROSPECTIVE ENTREPRENEURS

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Abstract

With a greater belief in a universal basis of principles underlying management processes, institutions of higher learning in Nigeria have ventured into what is regarded as necessary for effective solution to practical business problems. This article assesses the prospect of the strategies adopted by institutions of higher learning on entrepreneurship education to boost business enterprises in Nigeria. The study employed a survey design to examine approaches to effective guide for learning entrepreneurship courses in three levels of institutions of higher learning. A structured questionnaire was used to generate data on the prospect of the approaches from 450 students from the 3 institutions. The reliability coefficient of the instrument yielded .69 with Guttman Split half. Two research questions were answered from a weighted mean benchmark of 2.50 and above for anticipation and less for implausible. The results showed that the institutions adopted similar approaches, Universities, Polytechnics and Colleges of education exposed their learners to a compulsory industrial attachment to consolidate the classroom experience but on different duration. It is recommended that all students of

entrepreneurship education be fixed up with public firms during every long vacation throughout their study duration. A vacation skill acquisition report of the learners should form 50% of the assessment in relevant courses. All certified intending entrepreneurs should be aided to start on a strong financial foundation from budgetary allocation of the state.

Keywords

Approaches, Entrepreneurship Education, Experience, Learners, Tertiary Institutions.

1. Introduction

Nigeria has over the years been classified as a rich country with abundant natural resources though inhabited by a poor populace. The reason has been that most Nigerians are consumers rather than being producers. To be a producer, it demands entrepreneurship and knowledge driven mechanisms. Entrepreneurship as an act of identifying business opportunities and organizing it to initiate a successful business activity cannot be established if devoid of an entrepreneur. Due to economic recession experienced some few years back, almost everyone now desires to engage in one business or the other. They are however, confronted with complexities and difficulties due to ignorance. This increased rate of business failure is attributed to lack of management development programmes for entrepreneurs. Little wonder, Anyikwa (2006) opined that there is a pervasive problem of weak capacity with regards to business knowledge, skills and attitudes. One can imagine the rate at which small-scale sub sector witnesses the influx of business men and women who lack the skills to run a successful business. This calls for the consideration of the term “management education” which should not be limited to educating personnel in the technique of planning, organizing, staffing, directing and controlling the operatives of various organizations, rather, it is used in its broadest form to include “training personnel in the major functional areas of an organization such as entrepreneurship, accounting, marketing, personnel and management.

The belief that managers can learn only from experience was much less widely held in large firms at least, while the managers themselves were becoming more aware of the potential benefits to their career that education can provide (Anyanwu, 1985). The tendency to discount the value of longer comprehensive courses among many firms compared with short courses with marked functional or specialized content continued for some time. However, with greater belief in a universal basis of principles underlying management processes, the institutions in Nigeria

started to have the understanding of what is regarded as being necessary for the effective solution of practical business problems. The key factor in growth and survival of any small business cannot but stem from the entrepreneurship development maturity in such a business. Longer term business success as opined by Layeni (2007) relies on continuous personal growth, and achieving that, means being better today than you were yesterday, and being better tomorrow than you are today (Mohammed, 2007).

It is in the light of the greater belief in a universal basis of principles underlying management processes that institutions of higher learning in Nigeria began to venture into what is regarded as being necessary for effective solution of practical business problems. As part of the laudable struggle is the offering of entrepreneurship courses in preparing students to be job creators rather than being job seekers.

An innovation in engineering education which took place during the first decade of the 20th century addressed the need of engineering students for job-related practical experience when Herman Schneider, Dean of the College of Engineering, University of Cincinnati, introduced Cooperative Education (Eurich, 1985). In this system of education, the students will go to school for a stipulated period of time after which they will go to a factory or industry for an equal period of time. The students keeps repeating this process i.e. going to school for additional theoretical classes and then going back to the factory or industry for additional training and practical experience. Though there are variations of cooperative education today, the Idea of Schneider in 1906 remains the bedrock of all forms of industrial training throughout the world.

In Nigeria, industrial training also began with the dependence of industry on technical competencies for the operation and maintenance of its resources. Industrial training or work experience had its origins in the practice at the first Nigerian Polytechnic, the Yaba Technical Institute (now Yaba College of Technology) which was founded in 1948. Students were sponsored by government establishments or private firms at the time. They returned to work with their employers during the long vacations. In this way, the students had some form of industrial training or work-experience integrated with their learning at the polytechnic (Uvah, 2004).

2. Research Question

What is the level of exposure of learners to Students Industrial Works Experience Scheme (SIWES) for fostering entrepreneurship education?

3. Hypotheses

- Tertiary institutions adopt similar approaches on entrepreneurship education.
- There is gender difference on the prospect of entrepreneurship education by tertiary institutions.

4. Methodology

The study adopted a survey design to investigate prospect of the approaches on entrepreneurship education offered by students in tertiary institutions in Nigeria. A survey design became appropriate since the study generated data from a large population too cumbersome to be observed directly (Babbie & Mouton, 2009). A sample of 150 students offering various courses in entrepreneurship education randomly selected from three tertiary institutions in the North Central Zone of Nigeria participated in the study. 50 final year students were selected each from a University, a Polytechnic and a College of Education. A ten item Entrepreneurship Education Questionnaire (EEQ) was developed and administered for data collection.

The confidentiality of the respondents opinions were assured as a conclusion to brief information reflecting the purpose of the study. The instrument bore the respondents particulars with respect to institution and gender. Each item required a 3-point Likert-scale format with response options: totally, partially and doubtfully and were weighted 3, 2 and 1 respectively (Appendix). The instrument was validated and a reliability index of .713 was obtained from data gathered on its pilot exercise using a Guttman split-half. The administration and retrieval of the instrument was adequately monitored with a 93.0% response rate and collection.

5. Results

Data gathered for this study were analyzed using the Statistical Package for Social Scientist (SPSS version 19). A descriptive and inferential statistics were employed for the analysis of the data gathered from the respondents. The descriptive statistics involved the computation of the weighted mean scores for each of the items which has been assigned a weighted score to ascertain a decision and used to answer the research question. A weighted mean score range of 2.5 to 3.0 reflected a total concurred opinion; a 1.5 to 2.4 indicated a partial agreement; while 0.0 to 1.4 implied a doubtful opinion. Similarly, a t-test and an ANOVA were used to test the hypotheses on approaches adopted by the institutions and the prospect on gender difference.

5.1 Research Question

What approach is adopted by the institutions in exposing learners to entrepreneurship education?

Table 1.1: Weighted Mean Score (WMS) of Approaches adopted by Institutions

Item	Response					Decision
	Totally	Partially	Doubtfully	Weighted	Mean	
1. Entrepreneurship education is run as courses	120(360)	21(42)	9 (9)	2.74		totally
2. SIWES takes place outside semester periods	80(240)	50(100)	20(20)	2.40		partially
3. Students participate in a compulsory period of SIWES	129(387)	15(30)	6(6)	2.82		totally
4. Students develop cumulative report of SIWES	98(294)	42(84)	10(10)	2.59		totally
5. Students SIWES reports form 60% of assessment	67(201)	63(126)	20(20)	2.31		partially
6. SIWES consolidates theoretical aspects of courses	128(384)	22(44)	0(0)	2.85		totally
7. Students receive stipend during SIWES	0(0)	19(38)	131(131)	1.13		doubtfully
8. Students arrange for firm by themselves	140(420)	10(20)	0(0)	2.93		totally
9. Students pay for assessment visit of lecturer	115(345)	35(70)	0(0)	2.77		totally
10. Government aids students to set up small scale enterprise after schooling	52(156)	77(154)	21(21)	2.21		partially

The weighted mean scores (WMS) indicated on table 1 show that the institutions ran

entrepreneurship education as course system with a WMS of 2.74 which implied total agreement by all. The responses also reflected a partial agreement on whether SIWES took place outside the semester periods with a WMS of 2.4. In like manner, all the institutions ensured that all their learners participated in a compulsory period of SIWES with a total agreement WMS of 2.82. The results also showed that students developed cumulative report of their SIWES with a total WMS of 2.59. Students SIWES reports were partially agreed to form 60% of learner’ assessment with a WMS of 2.31. A total accord was registered on the fact that SIWES consolidated theoretical aspects of the courses offered by the learners with a WMS of 2.85. It was however, doubtful if students received stipend during SIWES with a WMS of 1.13. A total agreement response was registered respectively on ensuring that students arranged for firm where they could undergo SIWES on their own with a WMS of 2.93 and on enforcing learners to pay for assessment visit of their lecturers with a WMS of 2.77. However, a partial response agreement was obtained on government’s aiding prospective graduands to set up small scale enterprise after schooling with a WMS of 2.21.

5.2 Hypotheses

- Tertiary institutions adopt similar approaches on entrepreneurship education.

Table 1.2: ANOVA of Approaches on Entrepreneurship Education

Source of Variance	Sum of squares	Df	Mean square	F	Sig
Between Groups	703.583	9	78.176	152.044	.000
Within Groups	10.283	140	.514		
Total	713.867	149			

It is revealed from table 2 that all the tertiary institutions in the North Central Zone of Nigeria that offer entrepreneurship education course adopted similar approaches in inculcating the tenets of self-reliance after schooling in their students. The F ratio of 152.044 which was significant at P<.05 was obtained.

- There is gender difference on the prospect of entrepreneurship education by tertiary institutions

Table 1.3: *t-test of Prospect of Entrepreneurship Education*

Gender	N	Mean	Std Dev	Std Error Mean	df	t	Sig (2-tailed)
Male	89	34.65	5.21	1.26	148	-.523	.605
Female	61	35.62	4.77	1.32			

The t-test analysis of data gave the result indicated on table 3 which showed that there was no significant mean difference in the prospect of the approaches adopted by the institutions on both male and female graduands of entrepreneurship education. The t-value of -.523 was obtained at $P > .05$.

6. Discussion

It is evident from the results indicated above that the method adopted by the tertiary institutions of learning in the area of this study could be agreed to be effective, however, some areas called for serious attention. The results indicated that SIWES partially took place outside semester periods which implied that a conflict of interest may set in at times. This could jeopardize the ideal schedule for adequate learners' skill acquisition and sustenance. Similarly, it was revealed that the students SIWES reports partially formed 60% of their assessment. The implication of this could mean that the assessment visits by the lecturers were compromised or that the firms selected by students were sub-standard.

This discovery demands a deep thought to take a leaf from the operations of institutions from other advanced countries. Cheng, Chan and Mahmood (2009) had identified in their study in Malaysia that less traditional, but more interactive methods provided the most desirable achievement. Such methods identified by them include: case study, invitation of speakers and interaction with resource persons especially successful entrepreneurs in the society. However, the use of lecture-based method and case studies have not been wholeheartedly accepted as appropriate or effective enough, because they do not encourage learners to learn through experience (Cooper et al., 2004 in Lekoko et al., 2012).

The inclusion of SIWES as complementary in entrepreneurship education implies that the pedagogical strategies add credence to the acquisition of analytical approaches relevant in large firm contexts in addition to given room for insight and intuition required for an entrepreneurial

setting. The assessment of students' competence irrespective of gender still followed the age long traditional style of 40% CA and 60% written examination in the institutions. This common adopted assessment style by the institutions is outmoded, a rather convincing level of involvement means of assessment like the project report on every-day basis would reveal how punctual and dedicated a learner is in skills acquisition. It is observed however, that SIWES is conducted once for a period of four (4) months after 200 level in Colleges of Education, three (3) months period after National Diploma I (ND I) and one (1) year duration after the National Diploma II (ND II) for Polytechnics and in the University with three (3) months after 300 level and six (6) months after 400 level. The implication for these differences in duration is that while the Polytechnics allowed the learners to develop a consistent skill acquisition over a period of twelve (12) months between ordinary and national diplomas, the other levels of institutions short chained their learners' experiences with few months that gave little room for adequate practical training in becoming successful entrepreneurs. The fact that it is not possible to compromise the entrepreneurship development maturity in business as a key factor in the growth and survival of any small business remains a rule.

The assertion of Layeni (2007) that longer term business success relies on continuous personal growth also negates intermittent exposure to any experience, and achieving that, means being better today than one was yesterday and better tomorrow than one is today. The disparity noted in these institutions with regards to duration of industrial experience has been the order of training from time immemorial. Studies like one presented by Henry et al (2005) have revealed that learning methods employed in entrepreneurship education and training programmes differ greatly among institutions and include lectures, presentations and hand-outs, video and case study-based learning with group discussion and role-plays. Like other areas of learning, the most effective teaching techniques for entrepreneurship education is yet to be discovered. This was why Alberti et al., (2005) opined that research and knowledge about how to teach entrepreneurship remains relative underdeveloped in spite of the ever increasing demand for more entrepreneurial-oriented graduates (Kirby, 2004).

If we must make the most of the venture, it is expedient that the government provides leverage for prospective entrepreneurs. The findings in this study indicated that it was doubtful if learners receive stipend while on training and that government partially aids prospective graduates. These findings contradicted the two areas of entrepreneurship education identified by

Laukkamen (2000) which include: education about entrepreneurship and education for entrepreneurship. Learners could be better equipped if the tenets of the two areas identified are conceived and adopted. It is known that education about entrepreneurship is all about developing, constructing and studying theories referred to entrepreneurs, the establishment of firms, the contribution of economic development, the entrepreneurial process and small and middle sized firms. Likewise, education for entrepreneurship embraces current and nascent entrepreneurs with the intent of developing and stimulating the entrepreneurial process, providing all the resources necessary for the start-up of a new enterprise both within and outside an existing entity.

7. Conclusion

This study has revealed that despite the fact that the tertiary institutions in the North Central Zone of Nigeria have offered courses in entrepreneurship education over some years, prospective entrepreneurs are not well motivated. It is expedient for institutions in the zone to design a motivating package for would – be entrepreneurs in the course of learning to help enhance their interest after school. Similarly, no adequate mobilization is accorded the graduates to start a small-based business, in view of this; the institutions' programme could involve a revolving loan scheme to help entrepreneurs get themselves equipped for profitable endeavour. There were irregularities in the industrial experience duration by the institutions in addition to the adoption of traditional assessment style. The institutions would do well if they could harmonize their schedule uniformly for prospective entrepreneurs to develop within the same objective. More so, a practical engagement of this kind would be better assessed through intensive and comprehensive weekly or monthly reports. As evident from the findings, learners are left at the mercy of firms to accept them to have a reliable and standard work place for industrial experience for which they were to take responsibility in a way in ensuring complete assessment visits by their lecturers. It is on the bases of these findings that the recommendations below were proposed.

8. Recommendation

- Prospective entrepreneurs should be well motivated in order to have full participation during the industrial training by the government.

- Adequate mobilization should be accorded all graduates of entrepreneurship education to start a small-based business by the government or NGOs.
- The industrial work experience duration by all the levels of tertiary institutions should be uniform in order to entrench full integration of theory with practical knowledge.
- Assessment of courses in entrepreneurship education should be based on practical manifestation of competence by candidates in developing model(s) from the training
- Institutions should link learners up with firms with reliable and standard work place for industrial experience to enable candidates consolidate their experience evenly
- Institutions should take full responsibility of ensuring complete assessment visits by lecturers to firms where candidates engage in industrial training.

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