Online Journal of Arts, Management and Social Sciences (OJAMSS);
Vol.3 No.2, August 2018, pg.109 –122 (ISSN: 2276 – 9013)

STRATEGIES FOR EFFECTIVE BUSINESS EDUCATION/INDUSTRY COLLABORATION IN TERTIARY INSTITUTIONS IN NIGERIA.

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Abstract
The study determined the strategies for effective business education/industry collaboration in tertiary institutions in Nigeria. Two research questions guided the study and two null hypotheses were tested at 0/05 level of significance. A descriptive survey research design was adopted for the study. the population consisted of 213 business educators in some selected tertiary institutions in Nigeria. A structured questionnaire was used for data collection. The instrument was validated by three experts. The reliability of the instrument was ensured using pilot test technique. Data collected were analyzed using Cronbach Alpha formula which yielded reliability index of 0.81. Data related to the research questions were analyzed using mean and standard deviation while analysis of variance (ANOVA) was used to test the null hypotheses at 0.05 level of significance. Findings arising from the study revealed that the business educators agreed that work-based learning and relational learning are strategies for effective business education/industry collaboration in some selected tertiary institutions in Nigeria. Findings also indicated that there was no significant difference among the three groups in terms of their mean ratings on the work-based learning and relational learning strategies for effective business education/industry collaboration in some selected tertiary institutions in Nigeria based on years of teaching experience. Based on the findings, it was concluded that business education/industry collaboration is a very crucial strategy for building technological capacity and promoting economic development of our dear country Nigeria. It was recommended among others that tertiary institutions should encourage the formation of research teams to foster regeneration acts whereby, industry and academia collaborate in order to solve problems faced in industry hence creating mutual benefits.

Keywords: Strategies, business education/industry collaboration and tertiary institutions.

Introduction

Education is seen as the tool that facilitates economic, social, political and technological advancement and diversification in all human societies. The growth and development of any nation is hinged on the level of education attained by the citizens. In other words, education is the key for positive change in the society because of its far reaching effects on growth and development in all sectors of the economy. According to Agi and Yellow (2013), education is critical to the development of human resources,

impartation of appropriate skills, knowledge and attitude. It is a basis for transformation, industrialization and a highway to knowledge.

In this current era, technological advances are changing the way individuals and organizations operate as well as the teaching and learning processes in educational institutions. Educational institutions prepare students for real life by equipping the students with up-to-date information and necessary skills. Tertiary institutions play important roles in supporting a country's economic objectives by developing indigenous labour force (Duoc & Mertzger, 2006). Duoc and Mertzger further explained that the main objective of higher education is to produce graduates that will meet the requirements of the society through effective teaching and learning process.

Teaching is the key factor in improving learners' achievement in any academic set up. Aliyu (2013) opined that teaching is a process of imparting knowledge in the classroom. However, effective teaching and learning depends on the ability of the teacher to motivate learners to pick interest in learning through different strategic instructional strategies. Strategies are laid down framework of plans and actions of an organization geared towards achieving its set objectives in the short and long run (Nwazor & Onokpaunu, 2016). Nwazor and Onokpaunu further maintained that, in the context of education, strategies entail how institutions of learning equip students with the desirable competitive advantage beyond mere classroom performances to deal with the problems of the society.

Business education is an educational programme that prepares students for entry into and advancement in jobs within business and prepares them to handle their own business affairs to function intelligently as consumers and citizens in a business economy. Business education encompasses knowledge, attitudes, and skills needed by all citizens to effectively manage personal businesses and the economic system. Atakpa (2011) remarked that business education is an embodiment of vocational knowledge and skills needed for employment and advancement in a broad range of business careers. In other words, business education means education for business or training skills which is required in business offices, clerical occupation and business policy analysis. Business education students need entrepreneurial competencies in order to be effective in their chosen field of work. Olufunwa, Waziri and Olorunmolu (2013) noted that if institutions that have business education programme must achieve their goals, they must put in place quality enhancing strategies that will ensure the production of quality graduates for national development. Such quality enhancing strategies include effective strategies for the teaching of business education.

In recent time, graduates from the nation's tertiary institution of learning most especially the business education graduates have been plagued by the inability to get jobs in corporate industries and companies in Nigeria. Many authors and researchers have related this problem to the quality of training received by these graduates while in school which is devoid of skills required to meet up with the demands of the business world. However, authors like Essia (2012) and Nwazor (2012) have decried the failure of the education offered in tertiary institutions especially in the business education programme to prepare students and graduates for real life situations. In consonance, Okojie (2013) observed that some of the courses available in Nigerian higher institutions nowadays are far removed from the needs of the society and this is partly responsible for the mass unemployment of Nigerian graduates. This is in line with the trend of thought of Fnae,

Adeniji and Adu (2008) that Nigeria is bedeviled with severe problem of graduate unemployment brought about by mismatch between graduate training and the world of work.

Some developed countries have been able to overcome the problem of graduate unemployment through careful planning and university-industry collaboration. For instance, Microsoft, Cisco and Intel are in collaboration with the University of Melbourne; AALTO University is in collaboration with the industrial sector; Technical University of Munich (TUM) is in partnership with Audi motor company; University of California is also in partnership with the industrial sector of the economy to mention just a few (Belfield, 2012). The essence of this collaboration among other things is to identify the higher order of skills needed by the students for success in school and in the work place after graduation so as to inculcate same in the students.

One outcome of tertiary educational institutions drive to produce students with high order skills is closer integration with industry (Williams, Smith, Yasin & Pitchford, 2013). With regard to the need and relevance of the Nigerian tertiary educational institutions to foster collaboration with industries, Ojimba (2013) posited that, given the right and conducive atmosphere, schools and industry linkages could be developed into strong and solid partnerships. According to Ojimba, the benefits of this partnership are enormous: students acquire industrial skills, develop work habits and instill positive attitude in students towards industries.

Business education/industry collaboration is critical for skills development (education and training), the generation, acquisition, and adoption of knowledge (innovation and technology transfer), and the promotion of entrepreneurship (start-ups and spin-offs). Business education is basically occupational education which makes individuals self sufficient and reliant. Ikechukwu and Najimu (2011) believed that the acquisition of practical skills relating to occupation in various sectors of economic and social life will improve the standard of living of the people, and assist in eradicating poverty in the society. The linkage between institution and industry is very weak in Africa including Nigeria and do not produce the skills assets needed for industrial productivity leading to low absorption level by the available industries. Business education students need this industrial collaboration in order to be effective in their chosen field of work.

According to Karjalainen, Koria snd Salimaki (2011), collaboration results in good knowledge transfer activities between industry and institutes, opens the door to the teaching, learning and employability opportunities with Industry and faculties understand the expectations of industry in workforce development. The UNESCO-UNEVOC (2013) posited that institution/industry collaboration could be effective in strengthening business teacher education and facilitating their professional development. The organizations explained that partnership between public institutions and private sector industries could foster teacher education through the acquisition of practical skills and development of positive professional attitudes as well as providing opportunities for prospective and serving teachers to have industrial experiences. In addition, it would enable teachers to have access to the latest technology and practices and also enable educational institutions to know the level and types of skills currently required. Moreover, an effective collaboration between public institutions and private sector industries will ensure that business education curricula and teaching strategies are up-to-date and relevant to the needs of the industries.

Institution/industry collaboration are achieved in several ways- through mentorships, technology transfer and internship work placements (Jackson, 2015). The benefits of institution-industry linkages are wide-reaching. They can help coordinate research and development agendas and avoid duplications, stimulate additional private research and development investment, and exploit synergies and complementarities of scientific and technological capabilities. Institution-industry collaboration can also expand the relevance of research carried out in public institutions, foster the commercialization of public research and development outcomes, and increase the mobility of labor between public and private sectors. Collaboration is important not just because it is a better way to learn. The spirit of collaboration penetrates every institution and all lives. Thus learning to collaborate is part of equipping oneself for effectiveness, problem solving, innovation and life-long learning in an ever-changing networked economy (Nakagawa, Takata, Kato, Matsuyuki, & Matsuhashi, 2017). Therefore strategies for effective business education/industry collaboration in this study are work based learning and relational learning strategies

Work based learning (WBL) can be defined as an institutional arrangement in which learners are concurrently exposed to both work and learning environments (Amadi, 2013). Work-based learning is an educational approach that uses workplaces to structure learning experiences that contribute to the intellectual, social, academic, and career development of students. These experiences supplement school activities that apply, reinforce, refine, or extend learning that occurs at a worksite. The workplace is considered an active learning environment where students acquire new knowledge and skills, learn by doing, and constantly improve their abilities. Academic knowledge and skills learned through years of classroom instruction are applied to real life situations.

Work based learning according to Alfeld (2015) is an important way for students to learn about what they are interested in and good at different types of career areas, as well as learning technical, academic, and employability skills. Through WBL, structured learning experiences are provided to the learners through the collaborative efforts of employers of labour and the school. This arrangement avails learners opportunities to acquire a variety of skills upon exposure to rigorous academic engagements simultaneously with hands-on career development experiences. Ismail, Mohamad, Omar, Heongc and Kiong (2015) stated that work based learning programme must include instruction and activities in academic and occupational work-place competencies, positive work attitudes, employable practical skills, instructions in all aspects of industry -business decision, planning, management, financing, labour matters, community issues as well as health, safety and environment.

Relational learning is a joint activity between two parties, who share information, which are jointly interpreted and integrated into a shared relationship domain-specific memory (Kunttu, 2017). The learning process which takes place in relationships between industry and institutions has been recognized as an essential facilitator of the transfer and integration of new, external knowledge in firms. This relational learning process helps partners to jointly build new internal capabilities for innovation and to identify ways of joint knowledge development and utilization towards commercial ends (Weckowska, 2015). Thus, the relational learning process consists of three interconnected phases in which the research partners share knowledge, jointly make sense of it and integrate that knowledge into relational memory. In the first phase- knowledge sharing- the partners

share and transfer information and knowledge in formal and informal manners within their relationships. In the context of university–industry relationships, the process of knowledge transfer from academia to industry has been studied by several teams of researchers (Ankrah, Burgess, Grimshaw & Shaw, 2013; D'Este & Patel, 2007).

Typical forms of knowledge transfer include jointly organized research projects, training and education, consulting engagements, or thesis supervision. The transfer of technological knowledge is an important part of the relational learning process, because innovative collaboration involves close sharing of experience-based specialized knowledge that is often tacit in nature. In the second phase- joint sense making- the partners work together to achieve a mutual understanding, create new knowledge, and solve practical problems in their common development work (Selnes & Sallis in Kunttu, 2017). Thus, the joint sense making combines the resources, competences and previous knowledge of the partners to jointly develop new knowledge that is typically relationship specific and thus difficult to utilize outside the partnership. The third phase- knowledge integration- refers to the integration of the jointly developed knowledge, capabilities, and skills into a part of the relational memory owned by the partners. To build a knowledge-based economy, Nigeria needs to similarly integrate business elements into its education system, with the plan being to drive innovation by strengthening links between higher education, research and business practices.

The influencing factors to strategies for effective business education/industry collaboration may be years of teaching experience. The previous knowledge, experience and expertise ideas of educators may determine the instructional strategy effective for teaching job skills (Mang, Campbell, Ross & Boyd, 2013). According to Olisa (2009), experienced educators can carefully select effective instructional strategies that would help students acquire practical skills. As regards to the teaching of business education in tertiary institutions in Nigeria, this variable is likely to affect the mean ratings of respondents. Therefore the effects of this variable on the mean ratings of the respondents were determined.

In view of this, teaching strategies adopted by a business educator in teaching and learning is very imperative for improving the entrepreneurial skills of business education students for self employment and for effective business education/industry collaboration. Olufunwa, Waziri and Olorunmolu (2013) noted that if institutions that have business education programme must achieve their goals, they must put in place quality enhancing strategies that will ensure the production of quality graduates for national development. It is against this backdrop that the researcher seeks to determine strategies for effective business education/industrial collaboration in tertiary institutions in Nigeria

Statement of the Problem

Business education involves the acquisition of right habits, attitudes, skills and what it takes to survive in the face of unemployment. The aim is to help the students to acquire skills which obviously would transform them to job creators and providers and be part of the solution to unemployment and poverty. Despite these objectives, one of the major problems confronting Nigeria as a country is graduate unemployment. Joshua, Azuh and Olanrewaju (2015) revealed that the problem of graduate unemployment is traceable to the disequilibrium between labor market requirements and lack of essential employability skills on the part of Nigerian graduates. Other factors according to some

scholars responsible for unemployment include the fact that some Nigerian graduates are "quarter" baked which makes them unemployable. This is why most employers prefer graduates with foreign certificates to Nigerian graduates. This has resulted in churning out graduates every year without the hope of employment.

It has also been observed that some of the courses available in Nigerian higher institutions nowadays are far removed from the needs of the society and this is partly responsible for the mass unemployment of Nigerian graduates (Okojie, 2013). This is in line with the trend of thought of Fnae, Adeniji and Adu (2008) that Nigeria is bedeviled with severe problem of graduate unemployment brought about by mismatch between graduate training and the world of work. Some developed countries have been able to overcome the problem of graduate unemployment through careful planning and university-industry collaboration. It is generally believed that if business education students are properly taught the requisite life skills before leaving schools, they should certainly acquire the desired skills necessary for sustainable national development, hence the need for this study.

Purpose of the Study

The main purpose of this study was to ascertain the strategies for effective business education/industry collaboration in Nigeria. Specifically, the study ascertained:

1. The work based learning strategies for effective business education/industry collaboration in Nigeria.
2. The relational learning strategies for effective business education/industry collaboration in Nigeria.

Research Questions

The following research questions guided the study:

1. What are the work-based learning strategies for effective business education/industry collaboration in Nigeria?
2. What are the relational learning strategies for effective business education/industry collaboration in Nigeria?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

1. There is no significant difference in the mean ratings of business educators on the work based learning strategies for effective business education/industry collaboration in Nigeria as a result of experience.
2. There is no significant difference in the mean ratings of business educators on the relational learning strategies for effective business education/industry collaboration in Nigeria as a result of experience.
3.

Method

Descriptive survey research design was adopted for the study. The researcher considered this design appropriate for this study since it collected data from business

educators in selected tertiary institutions in Nigeria. The population of the study consisted of 213 business educators in selected tertiary institutions that offer business education programme in Nigeria. Instrument for data collection was a structured questionnaire. The instrument was validated by three experts in business education. Their comments enhanced the content validity of the instrument. To establish the internal consistency of the research instrument, a pilot test was conducted and Cronbach Alpha reliability method was used to test data collected using the application of Statistical Package for Social Sciences (SPSS) version 21. The analysis yielded a co-efficient score of 0.81. The questionnaire was structured on a five-point scale, with response categories as "Strongly Agree"; "Agree"; "Moderately Agree" "Disagree" and ''Very Strongly Disagree". The administration of the instrument was carried out personally by the researcher with the aid of five research assistants. Data collected regarding the research questions were analyzed using descriptive statistics (mean and standard deviation) while the analysis of variance (ANOVA) was used to test the hypotheses. In order to determine the strategies effective for business education/industry collaboration, a decision rule based on mean ratings between 4.50-5.00 was used by business educators to strongly agree, items with mean ratings of 3.50-4.49 was used at agreed and items with 2.50-3.49 were used at moderately agree. Furthermore, items with mean ratings of 1.50-2.49 and 0.50-1.49 were used by business educators to disagree and strongly agree respectively. In testing the null hypotheses, where the calculated p-value is less than the stipulated level of significance (0.05), it meant that there was a significant difference and the hypothesis was rejected. Conversely, where the calculated p-value is equal to or greater than the stipulated level of significance (0.05), it meant that there was no significant difference and the hypothesis was not rejected.

Results

Research Question 1

What are the work-based learning strategies for effective business education/industry collaboration in Nigeria?

Table 1: Mean ratings of the respondents on work-based learning strategies for effective business education/industry collaboration in tertiary institutions Nigeria. N= 213

S/No	Work-based Learning	Mean	SD	Decision
1.	Exposes students to a wide range of office activities	4.62	0.55	Strongly Agree
2.	Provides students with exposure to the actual working of business procedures	4.10	0.67	Agree
3.	Exposes students to view points on consequences to businesses when relevant actions or decisions are not observed.	4.00	0.59	Agree
4.	Facilitates learning of abstract concepts	3.88	0.70	Agree
5.	Gives students experiential learning	4.78	0.53	Strongly Agree
6.	Learning from firsthand experiences	3.93	0.65	Agree
7.	Exploring real world experiences	4.14	0.66	Agree
8.	Increases student-student and student-teacher social interaction	4.18	0.58	Agree
9.	Motivates students through increased interest and curiosity	3.72	0.74	Agree
10.	Students are placed on work activities that are appropriate to them	3.86	0.78	Agree
11.	Students are mentored and supervised in the work place by employers	4.16	0.62	Agree
12.	Creates an integrated experience for the student	3.78	0.71	Agree
Cluster Mean		**4.10**		**Agree**

As indicated by the cluster mean of 4.10 in Table 1, business educators agreed that work-based learning is a strategy for effective business education/industry collaboration in some selected tertiary institutions in Nigeria. The item by item analysis shows that items 1 and 5 with mean ratings ranging from 4.62 to 4.78 are work-based learning strategies rated as strongly agreed while items 2, 3, 4, 6, 7, 8, 9, 10, 11 and 12 are work-based learning strategies rated as agreed. There is homogeneity in items amongst business educators' responses indicating a consensus of opinion.

Research Question 2

What are the relational learning strategies for effective business education/industry collaboration in Nigeria?

Table 2: Mean ratings of the respondents on relational learning strategies for effective business education/industry collaboration in tertiary institutions Nigeria. N= 213

S/No	Relational Learning	Mean	SD	Decision
13.	Empowers students with monitoring skills in handling office records management	4.23	0.46	Agree
14.	Provides opportunities for students' to explore and test entrepreneurial ideas	3.94	0.63	Agree
15.	Enables students to assess behavioural patterns of workers in offices	4.55	0.44	Strongly Agree
16.	Enables students to self-evaluate their official performance in offices	3.95	0.49	Agree
17.	Creates opportunities for learners to develop teamwork skills	3.86	0.73	Agree
18.	Helps institutions and industries to jointly build new internal capabilities for innovation	4.02	0.70	Agree
19.	Identifies ways of joint knowledge development	3.73	0.56	Agree
20.	Creates opportunities for learners to develop decision-making skills	4.68	0.45	Strongly Agree
Cluster Mean		**4.12**		**Agree**

As displayed in Table 2, the cluster mean of 4.12 revealed that business educators agreed that relational learning is a strategy for effective business education/industry collaboration in some selected tertiary institutions in Nigeria. The item by item analysis shows that items 15 and 20 with mean ratings ranging from 4.55 to 4.68 are relational learning strategies rated as strongly agreed while items 13, 14, 16, 17, 18 and 19 are relational learning strategies rated as agreed. There is homogeneity in items amongst business educators' responses indicating greater consensus of opinion.

Testing the Hypotheses

Null Hypothesis 1

There is no significant difference in the mean ratings of business educators on the work based learning strategies for effective business education/industry collaboration in Nigeria as a result of experience.

Table 3: Summary of analysis of variance on mean ratings of the respondents on the work-based learning strategies for effective business education/industry collaboration in Nigeria

	Sum of Squares	df	Mean Square	F	P-value
Between Groups	.063	2	.031	1.573	.210
Within Groups	4.205	210	.020		
Total	4.268	212			

As shown in Table 3, there is no significant difference among the three groups in terms of their mean ratings on the work-based learning strategy for effective business education/industry collaboration in some selected tertiary institutions in Nigeria based on years of teaching experience (0-5 years, 6-10 years and above 10 years), as the F-ratio (2, 212) is 1.573 and *P-value* (.210) is greater than the stipulated 0.05 level of significance. Therefore the null hypothesis is not rejected.

Null Hypothesis 2

There is no significant difference in the mean ratings of business educators on the relational learning strategies for effective business education/industry collaboration in Nigeria as a result of experience.

Table 4

Analysis of variance on mean ratings of the respondents on the relational learning strategies for effective business education/industry collaboration in Nigeria

	Sum of Squares	df	Mean Square	F	P-value
Between Groups	.096	2	.048	2.628	.075
Within Groups	3.820	210	.018		
Total	3.915	212			

As shown in Table 4, there is no significant difference among the three groups in terms of their mean ratings on the relational learning strategy for effective business education/industry collaboration in some selected tertiary institutions in Nigeria based on years of teaching experience (0-5 years, 6-10 years and above 10 years), as the F-ratio (2, 212) is 2.628 and *P-value* (.075) is greater than the stipulated 0.05 level of significance. Therefore the null hypothesis is not rejected.

Discussion of Findings

Findings of the study revealed that business educators agreed that work-based learning is a strategy for effective business education/industry collaboration in some selected tertiary institutions in Nigeria. This finding is in consonance with that of Alfred (2015) who stated that through WBL, structured learning experiences are provided to the learners through the collaborative efforts of employers of labour and the school. This arrangement avails learners opportunities to acquire a variety of skills upon exposure to rigorous academic engagements simultaneously with hands-on career development experiences. This is an important way for students to learn about what they are interested in and good at different types of career areas, as well as learning technical, academic, and employability skills. Also Ismail, Mohamad, Omar, Heongc and Kiong (2015) stated that work based learning combined institutional learning with industrial learning and creates an integrated experience for the student. Basically, it is a learning approach that uses the work place as a medium for learning transfer. Furthermore, the result of the first hypothesis revealed that there was no significant difference among the three groups in terms of their mean ratings on the work-based learning strategy for effective business education/industry collaboration in some selected tertiary institutions in Nigeria based on years of teaching experience.

Findings of the study also indicated that relational learning is a strategy for effective business education/industry collaboration in some selected tertiary institutions in Nigeria. The outcome of the study agrees with the assertion of Weckowska (2015) who affirmed that relational learning process helps partners to jointly build new internal capabilities for innovation and to identify ways of joint knowledge development and utilization towards commercial ends. In support of this, Kunttu (2017) stated that the transfer of technological knowledge is an important part of the relational learning process, because innovative collaboration involves close sharing of experience-based specialized knowledge that is often tacit in nature. The test of the second hypothesis revealed that there was no significant difference among the three groups in terms of their mean ratings on the relational learning strategy for effective business education/industry collaboration in some selected tertiary institutions in Nigeria based on years of teaching experience. It followed therefore that the null hypothesis was not rejected.

Conclusion

Business education/industry collaboration is a very crucial strategy for building technological capacity and promoting economic development of our dear country Nigeria. The collaboration will bring together generators and developers of knowledge (tertiary institutions and research institutions) and those who utilize that knowledge for economic development (industry). Therefore, there is need for business education/industry collaboration. This will help institutions to identify areas of needs in the industries and then train their students in those areas so as to make them marketable in the labour market after graduation.

Recommendations

Based on the findings and conclusions of the study, it is recommended that:

1. Tertiary institutions should encourage the formation of research teams to foster regeneration acts whereby, industry and academia collaborate in order to solve problems faced in industry hence creating mutual benefits. Also, this could possibly create an avenue for spin-offs (Venture Startup) for product commercialization via the institution.
2. Business education programme should offer continual short courses programmes relevant to the industry. Also, industrial personnel should attend courses in the department to refresh their knowledge.
3. Technology transfer should be taught as a compulsory course in business education programme.
4. Institutions must sustain a highly skilled workforce with the full range of skills needed to advance understanding and develop new technologies.

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