



SCHOOL-INDUSTRY COLLABORATION: SUSTAINABILITY TOOL FOR PREPARING BUSINESS EDUCATION GRADUATES FOR E-WORLD CHALLENGES

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Abstract

This study examined school-industry collaboration as a sustainability tool for preparing business education graduates for e-world challenges. Two research questions were answered by the study while two null hypotheses were tested. Survey research design was used and the study was carried out in Enugu State, Nigeria. The population of the study consists of 21 business education lecturers in Federal and State universities that offers Business Education programme in Enugu state, Nigeria. The study had no sampling due to the manageable size of the population. Questionnaire was used for data collection. The instrument was validated by three experts. Cronbach Alpha reliability method was used and an overall coefficient of .87 was obtained. The questionnaire was administered and data analyzed using mean and standard deviation for the research questions, while t-test was used to test the hypotheses at 0.05 level of significance. Generally, the study found out that school-industry collaboration is a sustainability tool for preparing business education graduates for e-world challenges. Also, some challenges were identified as hindrances to school-industry collaboration in Enugu State, Nigeria. Based on the findings, the study recommended among others that business education students should be exposed to industries that will give them practical knowledge while in school; there is need to train and re- train lecturers on the use and application of e-world learning tools and technology so as to be abreast with the trend; there is need to encourage e-learning platforms that provides teaching and learning facilities to learners with opportunities to access information whenever and wherever they want especially with industries that can help them. Also, orientation on the need to promote collaboration among business educators should be encouraged for efficient and effective service delivery through the use of e-world learning platform that promotes school-industry collaboration.

Keyword: *Business education, Business education graduates, E-world, Sustainability, collaboration*



Introduction

The advent of industrial revolution, discovery and development brought a strong force with regard to the proliferation and exchange of information across the globe (Entonyeaku, Onuoha and Kanu 2016). Today's industries are thinking of how to operate and compete favourably in order to combat the new forces in the economy. For this to happen, there is need for industries who are the employers of labour to collaborate with schools that has the mandate of producing graduates that will eventually work in the industries or become self-employed. Schools emphasize their role in shaping future technology by providing platforms for innovation and educating future generations. Traditionally, school education has contributed greatly to the current levels of industrial evolution and technological advancement. However, in order for higher school education to deliver future generations with the right set of skills and knowledge; an imperative question has to be asked regarding how high school education institutions would be repositioned when linked with industries on instruction delivery of education through school-industry collaboration.

Collaboration is the process of two or more people or organizations working together to complete a task or achieve a goal (Rubin, 2009). It is viewed as a means by which a gap is bridged between the less experienced and the more experienced. *To the author*, collaboration relies on openness, knowledge sharing, some level of focus and accountability on the part of the institutions and the industries. Across the nation, businesses and governments are facing the challenge of high level of youth unemployment and shortage of job seekers with critical skills. Merely having a high school diploma or degree is not enough to be qualified for many white-collar jobs in today's workplace. The job market now requires a high level of analytical reading, creative thinking, writing, skill and math than the same jobs in some ten or twenty years ago (Odugbesan, 1999). The rapid evolution of technology is fueling this gap. As such, schools are seeking ways to partner with employers of labour in industries in other to closely align the skills needed to succeed on the job that is school-industry collaboration. To achieve this objective, school should foster close collaboration with employers and industries on curriculum development, lab training, and professional standards so as to ensure schools are producing work-ready graduates who can quickly begin to deliver value without the need for additional on-the-job training.

Wagner and Ramsey (2019) defines school industry collaboration as when a school and industry join together to share resources. This can take the form of monetary donations, contributing time from local professionals, donating equipment, offering internships depending on what the school needs, and what the industry has to offer. School industry collaboration is an opportunity to access untold resources which stand to benefit students tremendously. To the authors, when a school collaborates with an industry, everybody wins. The industry has a chance to give back to the community and at the same time allowing benefiting students to experience a whole new type of education. Building school-industry collaboration might seem complicated and daunting. One of the most important things about building a successful relationship between a school and industry is making sure that everyone is clear about expectations. Because industries are the one employing graduates



from schools and at the same time offering the goods or services. The school should be respectful of what they are willing (and not willing) to contribute. It should be very clear to both parties what the school is getting, how they are getting it, and what the time frame is. Scheduling and transparency are extremely important to make sure that the experience is a positive one for everyone involved especially the graduates.

Mourshed, Farrell and Barton (2013) highlighted two features that stand out among schools to prepare work-ready graduates. First, education providers and employers must actively step into one another's worlds. For example, employers can help design curricula and offer their employees as faculty while education providers can have students spend time on a job site and assist with job placement. Secondly, the most transformative solution involves multiple providers and employers working within a particular industry or occupation. Such collaboration will help solve the skills gap at a sector level by splitting costs among multiple stakeholders (educators, employers and trainees). Consequence, investment is reduced for everyone, which acts as an incentive for increased participation, review curricula and recommend changes to align learning with industry demands. To the authors, the perceived 'gap' between academic and practical knowledge has been a concern to various parties for decades. This gap, if not checked will bring a total disconnection between academic schools and industries which originally needed to be sustained.

To sustain is to retain. Sustainability focuses on meeting the needs of the present without compromising the ability of future generations to meet their needs. The concept of sustainability is composed of three pillars: economic, environmental, and social also known informally as profits, planet, and people (Tan, Udejaja, Babatunde and Ekundayo 2017). Sustainability encourages businesses and industries to frame decisions in terms of years and decades rather than on the next quarter's earnings report and to consider more factors than simply the profit or loss involved in such Sustainable collaboration development. Sustainable collaboration has been defined by different authors in various ways. Adebola (2007) defined sustainable development and collaboration as a kind of development that can be initiated and managed properly in such a way that gives attention to continuity and preservation for people to explore explicitly available resources for the enlargement of their existence. Kundan in (Ugoh, 2008) described sustainable collaboration as a construct, which visualize development as meeting the need of the present generation without compromising the needs of the future generation. To the author, continued sustainable collaboration is only possible and assured when concrete steps are taken to make the youth acquire the right skills and dexterity that will enable them to be self-reliant and become a tool for achieving development and sustainability in an electronic world.

Electronic world (e-world) as one of the forces reshaping the world's economy provides education and training to learners, both on and off-campus (Takalani, 2008). The electronic world may be defined as the use of electronic media to deliver instructional contents to learners regardless of the location. It is viewed as technology based learning in which learning materials are delivered electronically to learners through computer based network (Okigbo and Ndolo, 2011). In Nigeria today, e-world is considered by scholars as a



critical stratagem in institutions as it enables them to provide affordable, efficient and flexible learning environment for rapidly growing and diverse community of learners. With e-world platform, learners can reach out to their fellows, receive educational materials from their teacher, submit assignments, take tests and receive feedback; teachers can also reach out to students (Jegede, 2009). There are a number of benefits to e-world platform which makes it indispensable to teaching and learning. Among them are; access to quality education and information; effective interaction between students and teachers; opportunity for acquisition of up-to-date technological skills; greater collaboration among academics; learners have control over contents; prospect of self-learning; anytime and anywhere learning; tracking of learners' progress is made easier; exposure to standard course content and learning content among others (Olaniyi, 2006; Oguzor, 2011) which can be achieved through preparation of business education graduates with the requisite skills and knowledge.

Business operations are getting more complex and sophisticated with the intervention of electronic gadgets employed in almost every stage of business operation; communication, finance, administration and research among others which have all experienced great change. For business operation to be efficient there is need for sound business education. Business education is a form of vocational education that is geared towards developing the learner to become productive entrepreneurs, paid employment, self reliant and even in teaching business, (Ajisafe, 2015, Idialu in Amoor, 2010). Business education prepares beneficiaries for gainful employment and sustainable livelihood. It is seen as a form of education for and about business (Osuala 2006). Business education provides knowledge and understanding of the economic, financial, marketing, accounting, management system and other branches of business endeavor. Hence, business education prepares students to function intelligently as consumers and citizens in a business economy. According to Rufia, (2013) Business education holds the prospect of contributing, through its job creation and self-employment packages, for the attainment of vision 20:20:20. A gainfully employed individual contributes to GDP per capital; reduces poverty and unemployment which are some of the indices of development that national transformation is rooted and striving hard to achieve. Njoku (2006) defined business education as an educational programme that equips an individual with functional and sustainable skills, knowledge, attitude and value that would enable those individuals operate effectively in the environment they find themselves. Business education as a programme of study offers students who wish to pursue a career in business an opportunity to develop those skills, abilities and understanding that will enable them enter, perform and progress in a business occupation after graduation from high school or university and eventually become a business education graduate.

Nigeria economy is facing technological changes in business, industry and education. Hence the increasing demands for competent, efficient personnel and business education graduates in these sectors. The economy today is such that specialization is required in the labour market. It is no longer a period for pen pushers and letter writers but a time for people who possess the necessary skills and knowledge in various occupations, such as business and office occupations. The inclusion of modern technologies in institution's



programme prompted a swift shift from the use of traditional instructional equipment to modern technological devices in moving on with the tide of global technological advancement. Business education is an institutions' programme that utilize diverse technologies to promote and enhance teaching and learning (Etonyeaku, et' al 2017). Business courses in tertiary institutions are designed to equipped graduates with necessary skills and knowledge required to meet the dynamic nature of the ever changing nature of the world of work. Business education graduates are recipients of knowledge and skills from various higher institutions of learning who are expected to be employed after graduation.

There is need to equipped Nigerian graduates with the requisite skills needed by industrial sector on graduation cannot be overemphasized. Awareness on latest development, skills and applicability in area of concerned which has been neglected by some higher schools in Nigeria (Fnae 2008). This affirm the need to inculcate in business education graduates the requisites skills needed by industries as eventually some of these graduates may end up in such industries or be self-employed. Hence, the need for school-industry collaboration as a sustainability tool for preparing business education graduates for e-world challenges

Statement of Problem

As the nations grew and developed, the economy changed from agrarian to industrial technological, a number of factors have influenced school-industry collaboration for sustainable educational endeavors. A few of these include; economy, society, demo-graphics, and technological advances in the e-world. Reinforce competence is vital for business education graduates to thrive in a rapidly changing electronic world as the societies progresses without leaving anyone behind. Against a context in which we all have much to gain from growing openness and connectivity, and much to lose from rising inequalities and radicalism, business education graduates need skills to function in the competitive world of work, but more importantly they also require the capacity to analyze, understand global and intercultural issues even before facing the e-world challenges. The development of social and emotional skills, as well as values like respect, self-confidence and a sense of belonging, are of the utmost importance to create opportunities for all and advance a shared respect for human dignity. This calls for the need to prepare the leaders of tomorrow with requisite skills needed to face the e-world challenges.

Purpose of the Study

The study examines school-industry collaboration as a sustainability tool for preparing business education graduates for e-world challenges. Specifically, the study examined;

1. The areas of collaboration among school-industry in preparing business education graduates for e-world challenges in Enugu State
2. The challenges faced by school-industry collaboration in preparing business education graduates for e-world challenges in Enugu State



Research Questions

Based on the specific purpose of the study, the following research questions guided the study:

1. What are the areas of collaboration between school-industry in preparing business education graduates for e-world challenges in Enugu State?
2. What are the challenges faced by school-industry collaboration in preparing business education graduates for e-world challenges in Enugu State?

Hypotheses

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

- H₀₁:** There is no significant difference in the mean responses of business education graduates in the Federal and State Universities on the area of collaboration among school-industry in preparing business education graduates for e-world challenges in Enugu State.
- H₀₂:** There is no significant difference in the mean responses of Federal and State Universities on the challenges faced by business education graduates in the area of collaboration among school-industry in preparing business education graduates for e-world challenges in Enugu State.

Method

Two research questions guided the study and two hypotheses were formulated and tested at the probability level of 0.05. Descriptive survey research design was adopted for the study. Descriptive survey design is that in which the same information is gathered from an unbiased representative group of interest using questionnaire, interview and observation (Nworgu, 2015). Descriptive survey design was found suitable for this study because data were collected from the respondents using questionnaire on the school-industry collaboration as sustainability tool for preparing business education graduates for e-world challenges in Enugu State, Nigeria. The population for the study consisted of 21 business education lecturers drawn from Federal and State Universities that offer business education in Enugu State. Due to the manageable size of the population, the entire population was involved in the study. The instrument for data collection for the study was a 19 item structured questionnaire. The questionnaire was structured on a 4 point rating scale of Strongly Agree (SA); Agree (A); Disagree (D); and Strongly Disagree (SD) with corresponding values of 4, 3, 2, and 1 respectively. The instrument was validated by three experts in business education. For the purpose of ascertaining the internal consistency of the instrument, Cronbach Alpha reliability method was used and reliability coefficient .87 was obtained. Copies of the questionnaire were distributed and collected by the researchers on the spot to avoid loss. All the 21 copies of the questionnaire administered were retrieved representing 100% rate of return. The data collected were analyzed using mean and standard deviation for answering the research question while t-test was used for testing the null



hypotheses at 0.05 level of significance. Research questions were answered using boundary limit of 3.50 4.00 (Strongly Agree), 2.50 3.49 (Agree), 1.50 2.49 (Disagree), and 1.00 1.49 (Strongly Disagree) the null hypothesis of no significant difference was accepted for items who P-values were greater than 0.05 level of significance while hypothesis of no significant difference was rejected for items whose P-value were less than 0.05 level of significance.

Results

The results from research questions and hypotheses are presented in Tables 1 and 2

Research Question One

1. What are the areas of collaboration needed between school-industry in preparing business education graduates for e-world challenges in Enugu State?

H0₁: There is no significant difference in the mean response of business education graduates in preparing business education graduates in Enugu State.

Table 1: Mean ratings and t-test of the responses of business education graduates on the areas of collaboration needed among school-industry in preparing business education graduates in Enugu State, Nigeria.

S/N	Item Statements	X	SD	Rem	P.value	Rmk
Collaboration for school-industry in preparing business education graduates for e-world challenges in Enugu State, Nigeria include:						
1.	Collaboration by school-industry in work-visits/excursions/field-trips to industries	3.52	.81	SA	.71	NS
2.	Collaboration in Organization of seminars/workshops by the industries for technical education students.	3.59	.79	SA	.59	NS
3.	Employers help design curricula and offer their employees as faculty while education providers have students spend time on a job site and assist with job placement.	3.77	.60	SA	.98	NS
4.	Multiple providers and employers working within a particular industry or function.	3.65	.73	SA	.61	NS
5.	Collaborations to solve skills gap at a sector level by splitting costs among multiple stakeholders (educators, employers and trainees	3.87	.77	SA	.82	NS
6.	Educators closely collaborate with manufacturers on curriculum development and training program	3.67	.46	SA	.72	NS
7.	Refinement of training programmes through biannual Program Advisory Council meetings	3.57	.81	SA	.71	NS
8.	Donation of equipment/devices from industries to technical education institutions.	3.65	.56	SA	.81	NS
9.	Professionals from industry to engage in part time teaching in technical educational programmes	3.55	.67	SA	.73	NS
Grand Mean		3.66	.71	SA	.73	NS

Note: G = Grand Mean; X = Mean; SA = Strongly Agree; A = Agree; N = No of respondents; S = Significant; NS = Not significant; Sig. at 0.05.

Data presented in Table 1 show that the mean ratings of respondents on all the nine items range from 3.52-3.87 which are within the boundary limit of 3.50-4.00 on a 4-point rating scale. This indicates that business education lecturers strongly agree that all the nine identified items are areas of collaboration between school-industry in preparing business education graduates in Enugu State. Furthermore, the test of the first hypothesis shows that the P-values of the entire nine items range between .46-.81 which are greater than 0.05 level of significance. This indicates that there are no significant differences in the mean ratings of lecturers in the Federal and State Universities on the areas of school-industry collaboration in preparing business education graduates in Enugu State.

Research Question Two

1. What are the challenges faced by school-industry collaboration in preparing business education graduates for e-world challenges in Enugu State?
- H0₂:** There is no significant difference in the mean response of lecturers in the Federal and State University on the challenges faced in the area of collaboration between school-industry in preparing business education graduates for e-world challenges in Enugu State.

Table 2: Mean ratings and t-test of the responses of lecturers on the challenges faced school-industry collaboration in preparing business education graduates for e-world challenges in Enugu State

S/N	Item Statements	X	SD	Rem.	P. Value	Rmk
Challenges faced by school-industry collaboration in preparing business education graduates for e-world challenges in Enugu State include:						
1.	Challenges in the case disciplines such as management and accounting of records.	3.53	.54	SA	.72	NS
2.	Curriculum planning and review.	3.78	.67	SA	.52	NS
3.	Sharing training facilities between school-industry	3.92	.43	SA	.28	NS
4.	Donation of equipment/devices from industries to technical education institutions	3.57	.49	SA	.47	NS
5.	Organization of seminars/workshops by the industries for business education students.	3.66	.58	SA	.19	NS
6.	Special skills training/retraining for lecturers.	3.69	.81	SA	.31	NS
7.	Research collaboration and grants	3.55	.69	SA	.38	NS
8.	Organisation of joint cooperative programme of research between the school-industry.	3.79	.60	SA	.79	NS
9.	Sharing training facilities between school-industry.	3.67	.92	SA	.97	NS
10.	Organisation of school-industry liaison offices.	3.79	.33	SA	.42	NS
Grand Mean		3.69	.60	SA	.51	NS

Note: G = Grand Mean; X = Mean; SA = Strongly Agree; A = Agree; N = No of respondents; S = Significant; NS = Not significant; Sig. at 0.05.



Data presented in Table 2 reveal that the mean ratings of the responses of the respondents on the entire 10 items range from 3.54 - 3.92 which are within the boundary limit of 3.50 - 4.00 on 4-point rating scale. This indicated that business education lecturers strongly agree that the entire ten identified items are challenges faced by business education lecturers in school-industry collaboration in preparing business education graduates for e-world challenges in Enugu State, Nigeria. Similarly, data presented in Table 2 also reveal that the P-values of the entire 10 items ranged between .19 - .97 which are all greater than 0.05 level of significance. This indicates that there is no significant difference in the mean ratings of the responses of business education lecturers in Federal and State Universities on the challenges faced by school-industry collaboration in preparing business education graduates for e-world challenges in Enugu State

Discussion of Findings

This study identified areas of school-industry collaboration in preparing business education graduates for e-world challenges in Enugu State which included: collaboration by school-industry in work-visits/excursions/field-trips to industries, collaboration in the organization of seminars/workshops by the industries for technical education students, employers help to design curricula and offer their employees as faculty while education providers have students spend time on a job site and assist with job placement, multiple providers and employers working within a particular industry or function, collaborations to solve skills gap at a sector level by splitting costs among multiple stakeholders (educators, employers and trainees), educators closely collaborate with manufacturers on curriculum development and training program, refinement of training programme through biannual program advisory council meetings, donation of equipment/devices from industries to technical education institutions, professionals from industry to engage in part time teaching in technical educational programmes among others.

These findings were in agreement with the opinions of Mourshed, Farrell and Barton (2013) who opined that collaboration with industries is key to aligning instruction with in-demand skills, the authors emphasized that the more creative and innovative one gets, the more result one gets. industries in other to closely align the skills needed to succeed on the job. Thus the need for all concerned to perform their part to close the skills gap. Close collaboration with employers and industry on curriculum development, lab training, and professional standards is important to ensuring schools are producing work-ready graduates who can quickly begin to deliver value without the need for additional on-the-job training. Such collaborations will help to solve the skills gap at a division stage by splitting costs among multiple stakeholders (educators, employers and trainees) among others.

Furthermore, the study identified challenges faced by school-industry collaboration in preparing business education graduates for e-world challenges in Enugu State. These include and not limited to curriculum planning and review, research collaboration and grants, scholarship to technical education students, planning of work-



visits/excursions/field-trips, organization of seminars/workshops by the industries for technical education students, Invitation industrial workers for special lectures, organization of school-industry liaison offices, skill acquisition programmes for students, special skills training/retraining for lecturers, supply/maintenance of school equipment, school visits to industries for relevance information, organization of joint cooperative programme of research between the school-industry. These perceived 'gap' between academic and practical knowledge have been of concern to various parties for decades. This is particularly the case in disciplines such as management and accounting. Notwithstanding this concern, evidence suggests that the gap has continued to grow, leading many to question whether it can be closed, whether such action is, in fact, desirable, and how a closer relationship between academics and practitioners can best be cultivated.

The finding of this study is in line with Kundan in Ugoh, 2008. To the author, sustainable collaboration is only possible and assured when concrete steps are taken to make business education graduates acquire skills that will enable them to be self-reliant which becomes a tools for achieving development and its sustainability despite the challenges. There are numerous challenges facing business education programme in Nigeria. Among which are; lack of adequate training facilities and equipment; inadequate laboratory and workshop, shortage of trained manpower responsibility for preparing business education graduates with employable skills among others. There is need for industries and schools to create a balance between the supply and demand in terms of collaboration that ensures sustainability for business education graduates employability in the e-world market. With all these laudable strategies in place as revealed by the study, such collaboration if applied will yield meaningful positive results.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. Business Education graduates should be linked with industries that will give them practical knowledge while in school.
2. There is need to train and re- train business education lecturers on the use and application of e-world learning tools and technology so as to be abreast with the trend.
3. There is need to encourage e-learning platforms that provide teaching and learning facilities to learners with opportunities to access information whenever and wherever they want especially with industries that can help them.
4. Orientation on the need to promote school-industry collaboration should be encouraged for efficient and effective service delivery through the use of e-world learning platforms that promotes school-industry collaboration.
5. The learning environment should be made a replica of the work environment. Business education graduates should be provided with the machines and equipment that align skill acquisition.



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