



INSTITUTION - INDUSTRY RESOURCEFULNESS AND INNOVATION IN BUSINESS EDUCATION CURRICULUM

Dr. Edet E. Okon & Dr. Agnes A. Ewuru

Department of Vocational Education
Faculty of Vocational and Science Education
University of Calabar, Calabar – NIGERIA
okon_e@ymail.com

Abstract

This study determined the degree of expertise resourcefulness in institution – industry collaboration in business education curriculum innovation in Nigeria; answered the research question, “What is the degree of expertise resourcefulness in institution – industry collaboration in business education curriculum innovation in Nigeria? Null hypothesis tested is, “the degree of expertise resourcefulness in institution – industry collaboration in business education curriculum innovation in Nigeria is not significant”. The descriptive survey research design was adopted for the study conducted in Nigeria. The population was 800 (550 lecturers and 250 employers), where the simple random sampling technique was used to select a sample size of 260 respondents consisting 179 lecturers and 81 industry representatives. A 30 – item, “Institution - industry resourcefulness and innovation in business education curriculum questionnaire (2IRIBEC)” generated data for the study. Multiple Regression analysis (MRA) was used to analyse data. Findings reveal that degree of expertise resourcefulness in institution – industry collaboration in business education curriculum innovation in Nigeria is significant (F-ratio of 62.197 is by far greater than critical F-ratio of 3.84 at .05 levels of significance with degrees of freedom 2, 257). Coefficient of determination of .326 indicates that institution – industry collaboration currently contribute 32.6% to business education curriculum innovation with significance of t-value of 6.17 indicating that both variables significantly contribute to regression. It is concluded that effective institution – industry collaboration in the area of business education curriculum innovation will promote the development of 21st Century skills. Therefore, business education institutions should allow full participation of industry personnel in the collaboration process to attract their resourcefulness in business education curriculum innovation.

Keywords: Business education, collaboration, curriculum, industry, innovation, institution, skills.

Introduction

Undoubtedly, much has been touted about the need for institution – industry collaboration. Unfortunately, such collaboration seem not to have created much impact on the business education programme apparently due to the absence of collaboration in the area of utilising industry resourcefulness in creating innovation in business education curriculum. Industry resourcefulness as used in the context of this research goes far beyond industries provided resources for education or business education development. It is a height of industry enhancing the transformation of business education by fully using and emptying expertise in the school system, deployment of techniques and directly offering their services for the development of business education, among others. Therefore, industry resourcefulness could be in the area of expertise role of professionals, exposure of business education undergraduates to modern technology, especially digital technology, breeding work ethics to undergraduates, up-skilling of fresh graduates, among others.

Interestingly, both business education institutions and industry ought to be in mutual existence, where institutions train graduates that are absorbed by industries with industries providing a platform for functional training of business education undergraduates as applicable during the students’ industrial work experience scheme (SIWES). Resourcefulness of industry implies that industry deploy their personnel to offer expertise in designing and development business education curriculum, deploys the most sophisticated and modern technology, develop learning software packages that are strong enough to address learning in a digital era as now, promote practice and learning in a real situation peculiar to the work and business environment, among others. Awasthy, Flint, Sankarnarayana and Jones (2020) in a study found that measures proposed in the form of best practices or models to improve the effectiveness of university – industry collaboration often address a specific concern such as technology transfer, intellectual property (IP), whereas there is a scope for a comprehensive holistic framework to address many aspects of university – industry collaboration (UIC). Industry – university collaboration (IUCs) according to Rybnicek



and Konigsgruber (2019) have received increased attention in management practice and research where the authors noted that the need for innovation in today's business environment and the ambition of policymakers to commercialise academic knowledge has intensified the trend.

This important aspect of academic programme should be given more attention in order to eliminate hindrances. Thus, a study by O'Dwyer, Filieri and O'Malley (2023) revealed specific university – industry barriers and enablers emerging at different points in time include strong lack of trust, strong fear of knowledge leakage, reluctance to share in the embryonic phase, among others. Arigbe, Arigbe and Awodiji (2022) reported in a study that skill gaps in job performance of university graduates can be addressed through a synergistic relationship between institutions and industries through research, industrial training for students, support for development projects, and joint curriculum development. Findings revealed significant positive correlation between industry training for students and University Goal Achievement (UGA). A study by Wu and Chen (2021) reported that in a dynamic marketplace, new product development (NPD) is considered the pivot of an organisation's competitive strategy with the finding that pedagogical approaches and development assessments with concrete learning objectives.

The idea behind industry resourcefulness in institution – industry collaboration in business education is to bring innovativeness into classroom situation through innovative curriculum. This is in line with global practice to produce graduates with skills needed to address contemporary global needs at all levels of human existence. According to Avolio, Benzaquen and Pretell (2019) business schools need to reassess the facts, frameworks, and theories they teach, while updating the curricula with hard and soft skills in management practice and values. The study by Avolio et al found that methodology can induce faculties to consider student requirements, evaluate the feasibility of teaching materials and pedagogical approaches, and develop assessments with concrete learning objectives. The study (Avolio et al) further found that pedagogical approaches of experimental learning and constructivist learning were effective for teaching innovation management, knowledge management, project management, and risk management in courses at business schools in new product development.

The possibility of institution – industry collaboration in the development of innovative curriculum in business education is gradually gaining awareness through research output. For instance, Oyinloye and Asonibare (2020) in a study found that synergy and collaboration between institution – industry will contribute to shared resources for sustainability of educational programme over time as well as create a foundation for co-investing in facilities and equipment, provide common employability skills needed by employers to be taught to students and reinforced in the classroom, enhance the quality of graduates that are branded for the world of work. Therefore, Seyi and Abiola (2022) posited that enriching the business education curriculum will foster its continued relevance in skills acquisition. A study on school – industry collaboration by Okeke (2022) revealed that school – industry collaboration is a curriculum challenge of preparing business education students for the changing business world to a high extent.

Consequently, business education curriculum in its present structure and content is still lagging in delivering its mandate to the extent of adequately addressing the skill need of the 21st Century, especially in the area of industry's demands. Recent interview with fresh graduates of business education engaged in the banking industries within Calabar metropolis of Nigeria was revealing. Reactions centre on the fact that, emerging job tasks in the banking industry focus on employees' ability to draw customers, discreteness and diligence in handling work schedules, analytical skills, computational skills, ability to develop communication that persuades customers to key into products offered by the banks. Interestingly, these fresh graduates are not left in isolation of skills and knowledge they acquired in schools are integrated into teams supervised and mentored by experienced employees for daily evaluation of tasks and orientation for gradual improvement.

It is therefore of immense significance to infuse the competencies of these industry-based resource persons to integrate their resourcefulness at all levels of the curriculum process such as business education objectives to be attained, learning experiences needed to attain the objectives, appropriate contents based on the reality of the era, organisational structure of learning experiences and contents, ascertaining what has been achieved, and possible innovation needed to bring about improvement in line with emerging realities. A study by Ndubuisi, Ezeani and Ile (2022) in a study found that digital skills were highly needed in business education programme in tertiary institutions. A further concern that has necessitated this study is the ability of business educators, most of who were trained before digitalisation evolved in work and business place, and of course for personal living. This calls for transfer of skills from the industry as industrial experts, through career training are in a better position to display competencies in handling these skills. Interestingly, business educators who are directly involved in the training of undergraduates have been aggressive and very serious in updating these skills.



Engaging the resourcefulness of industries can promote resourceful business educators as well as graduates that will in turn be resourceful to them, institutions, the labour market and business world. Ile and Edokpolor (2021) in a study found positive correlation between overall job resources and task performance, implying that resources were needed for task performance with business educators' tendency to perform better increasing with increase in resources. Unfortunately, resources available in public universities, especially in the area of financial capacity have been so lean due to poor funding of education. Business education institutions can only leverage in the area of resources through collaboration with industries. The fact remains that industries can be resourceful in many areas such as supply of modern equipment and technology, resource persons who can deliver contents from labour market's perspective, among others.

Training needs of business education student has become a major research interest among business educators. A study by Ingwe, Okute and Okon (2023) found that innovative and creative abilities, leadership, marketing and interpersonal skills are required by business education graduating students for self-reliance. Meanwhile, business education institutions may not successfully address these needs without collaboration with industries. In a related study that determined the training needs of business education undergraduates conducted by Okon (2022) the need to provide adequate training for competencies in ICT usage. Again, the implication of this study is that it will be difficult for business education institutions to provide adequate training without effective collaboration with industries to address any existing gap in business education curriculum.

Statement of the problem

Business education institutions over the years have been in collaborations with industries in areas such as absorbing business education undergraduates for industrial work experience scheme, scholarship and research endowment funds to mention but a few. This has been a good feat and has yielded result in those areas. Unfortunately, such collaboration only requires the resources of industries rather than resourcefulness. Industries merely lending resources for the development of business education as much as it is a good support do not necessarily place industries in the position of putting their resourcefulness to fully inject the much needed skills to be acquired by business education graduates as they transit to the world of work, business and personal living in the contemporary global society. The inability of industries to display and extend their resourcefulness to innovatively design and develop business education curriculum in line with the present work and business environment poses serious threat in the delivery of business education let alone in the achievement of its mandate. This study therefore addresses these concerns.

Research question

What is the degree of expertise resourcefulness in institution – industry collaboration in business education curriculum innovation in Nigeria?

Statement of null hypothesis

The degree of expertise resourcefulness in institution – industry collaboration in business education curriculum innovation in Nigeria is not significant.

Research methods

The descriptive survey research design was adopted for the study. This research design allowed the administration of survey instruments, especially questionnaire for data generation. The study was conducted in Nigeria using lecturers from the rank of Lecturer 1 with Doctorate Degree and personnel of industries not below the rank of directors in departments of educational services, research and statistics, and human resource developments, with a total population of 800 (550 lecturers and 250 employers), where the simple random sampling technique was used to select a sample size of 260 respondents. The sample size of 260 is suitable for a population of 800 using Krejcie and Morgan (1970) Table of Sample determination. However, in determining the appropriate sample for each of the two categories, ratio was adopted for the calculation thus, for 179 for lecturers ($550/800 \times 260$) and 81 for industry representatives ($250/800 \times 260$).

The instrument designed by the researcher that generated data for the study was tagged, "institution - industry resourcefulness and innovation in business education curriculum questionnaire (2IRIBEC)". The administration of the questionnaire was done both manually and electronically. The questionnaire contains 30 items. This covers institution and industry representatives as independent sub-variables and the dependent variable contained 10 items each. The Multiple Regression analysis (MRA) was used to analyse data. Results are presented in Tables 1 and 2.



Results

Answers to research question

What is the degree of expertise resourcefulness in institution – industry collaboration in business education curriculum innovation in Nigeria?

Table 1: Beta (β), Regression Co-efficient (R^2) and Standard Error (E) for degree of expertise resourcefulness in institution – industry collaboration in business education curriculum innovation in Nigeria (N = 260).

Variable	β	SE	Multiple R	R^2	Adjusted R
Institution	.131	2.855	.571	.326	.321
Industry	.627	1.731			

The result presented on Table 1 indicates (β), Regression Co-efficient (R^2) and Standard Error (E) for degree of expertise resourcefulness in institution – industry collaboration in business education curriculum innovation in Nigeria. The β values of .131 and .627 represents degree of expertise resourcefulness in institution and industry collaboration in business education curriculum innovation in Nigeria, otherwise the β values could have been the same. The value of Multiple Regression Co-efficient (R^2) of .326 indicates that both variables contribute positively to business education curriculum innovation in Nigeria.

Test of null hypothesis

The degree of expertise resourcefulness in institution – industry collaboration in business education curriculum innovation in Nigeria is not significant.

Table 2: Result of Multiple regressions analysis of no significant degree of expertise resourcefulness in institution – industry collaboration in business education curriculum innovation in Nigeria.

Variable	β	SE	R	R^2	t	Significant at
Institution	.131	2.855	.571	.326	6.17	.05
Industry	.627	1.731				
Model	Sum of Squares	df	Mean Square	F	Significant Level	
Regression	1013.923	2	506.961	62.197	.05	
Residual	2094.766	257	8.151			
Total	3108.688	259				

The result presented in Table 2 reveals that the calculated F-ratio of 62.197 is by far greater than critical F-ratio of 3.84 at .05 levels of significance with degrees of freedom 2, 257. Based on this revelation, the null hypothesis that degree of expertise resourcefulness in institution – industry collaboration in business education curriculum innovation in Nigeria is not significant is rejected, signifying that degree of expertise resourcefulness in institution – industry collaboration in business education curriculum innovation in Nigeria is significant. Further revelation was that the coefficient of determination of .326 indicates that institution – industry collaboration currently contribute 32.6% to business education curriculum innovation. The significance of t-value of 6.17 indicates that both variables significantly contribute to regression.

Discussion of findings

Summary of findings made are that: Beta (β) values of .131 (institution), .627 (industry) collaboration represents degree of expertise resourcefulness in business education curriculum innovation in Nigeria; otherwise the β values could have been the same. The value of Multiple Regression Co-efficient (R^2) of .326 indicates that both variables contribute positively to business education curriculum innovation in Nigeria. Again, the calculated F-ratio of 62.197 is by far greater than critical F-ratio of 3.84 at .05 levels of significance with degrees of freedom 2, 257. The null hypothesis, degree of expertise resourcefulness in institution – industry collaboration in business education curriculum innovation in Nigeria is not significant is rejected, signifying that degree of expertise resourcefulness in institution – industry collaboration in business education curriculum innovation in Nigeria is significant. The coefficient of determination of .326 indicates that institution – industry collaboration currently contribute 32.6% to business education curriculum innovation. The significance of t-value of 6.17 indicates that both variables significantly contribute to regression.



The findings highlighted above are actually within the expectation lines of this research considering the need for industries to be part of business education curriculum innovation to accommodate innovative skills needed in industries, business world and general living in the current and future eras. Besides, findings from other researches earlier reviewed in the introductory part of this research were not far from what the findings of this current research portrays. However, much effort should be geared into fully drafting industries into the entire curriculum process from curriculum designs, development to implementation.

Therefore, collaboration ought to be at each levels of the curriculum process, considering the importance of equipping business education graduates with appropriate skills to meet the demand of work, business and personal living environments as earlier posited by other authors. For instance, Ndubuisi, Ezeani and Ile (2022) found that digital skills were highly needed in business education programme in tertiary institutions. Ile and Edokpolor (2021) noted that resources were needed for task performance with business educators' tendency to perform better increasing with increase in resources. Ingwe, Okute and Okon (2023) found that innovative and creative abilities, leadership, marketing and interpersonal skills are required by business education graduating students for self-reliance and the need for business educators to ensure that such students are adequately exposed to ICT skills, innovativeness and creativity, leadership experience, marketing skills and personal skills before graduation. Equally Okon (2022) saw the need to provide adequate training for competencies in ICT usage.

Conclusion

Conclusions drawn from the finding of this study are that effective institution – industry collaboration in the area of business education curriculum innovation will promote the development of 21st Century skills. Therefore, graduates of business education will not find it difficult to cope with emerging skills of work, business and personal living environments.

Recommendations/Implication for business education

Recommendation based on the conclusion drawn is that business education institutions should allow full participation of industry personnel in the collaboration process to attract their resourcefulness in business education curriculum innovation. It is equally recommended that such collaboration in curriculum innovation should cover all aspects of the curriculum development process.

The implication of this study for business education is that institution – industry collaboration requires the resourcefulness of industries in area of expertise. Therefore, expertise in business education innovation should begin with the curriculum process where industries take part and provide answers to questions such as: What educational purpose should the school attain? What educational experiences can be provided that is likely to attain these purposes? How can these educational experiences be effectively organised? How can we determine whether these purposes are being attained? What constitutes aims, goals and objectives in business education? Other related concerns that industries should take active part in the process are: Selection of learning experiences peculiar to business education; determination of criteria for selection of learning experiences; selection of contents in business education, criteria for selection of content, organisation and integration of experiences and content in business education, application of modern evaluation techniques that involve global participants such as the use of web-based packages, and innovative techniques to meet emerging realities.

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