UNIUYO JOURNAL OF BUSINESS EDUCATION AND ENTREPRENEURSHIP

Vol.2 No.1, October 2025

REBRANDING TECHNOLOGY INTEGRATION IN TERTIARY INSTITUTIONS THROUGH PUBLIC PRIVATE PARTNERSHIP FUNDING INITIATIVE IN DELTA STATE

BY

DR. NWALADO SIMIKU HELEN
MARKETING EDUCATION DEPARTMENT
FEDERAL COLLEDE OF EDUCATION (TECHNICAL), ASABA, DELTA STATE
E-MAIL: nwaladosh@gmail.com
PHONE: 08032750749

AND

DR. KASIMU OSIGBEME ESHEMOGIE
BUSINESS EDUCATION DEPARTMENT
FACULTY OF VOCATIONAL AND TECHNICAL EDUCATION
UNIVERSITY OF BENIN
E-MAIL: kassimeshemogie@yahoo.com
PHONE: 08034404573

Abstract

The study investigated the extent Public Private Partnership (PPP) funding initiatives would rebrand technology integration in business education programmes in tertiary institutions in Delta State. Two research questions guided the study. The descriptive survey research design was adopted for the study and the population for the study comprised 109 business educators in Delta State. The instrument for data collection was a structured validated questionnaire. The instrument was subjected to a reliability test using Cronbach Alpha. The test yielded coefficient values of .87 and .80 for the two clusters with an overall reliability co-efficient of .84. Data collected from the respondents were analyzed with mean and standard deviation. The study revealed that public private partnership funding initiatives for providing infrastructure will rebrand technology integration in business education in tertiary institutions in Delta State to a high extent. Findings also revealed that public private partnership funding initiatives for providing educational and professional training will rebrand technology integration in business education in tertiary institutions in Delta State to a high extent. Based on these findings, the researcher recommended among others, that to institutionalize collaborative or public-private partnership (PPP) programmes for technology integration in business education programmes in Nigeria's tertiary institutions, the federal and state governments should develop a regulatory framework. It was also recommended that the federal and state governments in conjunction with the financial institutions must design a risk-sharing loan program so that the risk is shared between the two parties in the event that the loan-financed project fails.

Keywords: *Technology, Integration, Public Private Partnership (PPP), Funding, Business Education*

Introduction

The advent of technology has reshaped the conduct of human activities. The development of computer and internet technology has changed human civilization, turning the world into a global village in the current information era. The effects of this development may be seen in the socioeconomic, political, and, to some extent, educational systems. They affect all areas of human endeavor. Technology use is now a fundamental component of human society. The conventional function of the education sector in human society has been called into question by this change (Johnson, Jacovina, Russell & Soto, 2016). In addition to subject-specific knowledge, the education sector today faces the task of preparing students with problem-solving abilities, critical thinking skills, technological and information literacy, and the capacity to use digital technologies to acquire and utilize information for problem-solving. These knowledge elements are often discussed.

In technology-driven cultures, these knowledge components—often referred to as ICT-literacy—have evolved into a fundamental skill set for employment and a prerequisite for further study and career advancement. In an effort to meet the new challenge of technology integration in education, this development is requiring a lot of changes in the education sector, both evolutionary and revolutionary. The education sector must be altered on all levels if it is to effectively address the new issue of providing learners with practical knowledge that is relevant to the needs of the technology era. Such a reform must take into account significant adjustments to the curriculum, teaching techniques, infrastructure, and amenities. Facilitating the incorporation of ICT into the curriculum must be the goal of the transformative reforms. The transformative changes must be focused on: supporting the use of ICT equipment in pedagogical practices; other educational practices as relevant to schools, colleges, and universities; and integrating technology into the curriculum material of all disciplines and at all levels of learning (Garba, Singh, Yusuf & Ziden, 2013).

Technology is the creation, modification, application, and understanding of tools, machines, techniques, crafts, systems, and organizational procedures used to accomplish a task, manage an applicable input-output relationship, solve an issue, or carry out a specified function (Johnson, et al, 2016). According to Wordu and Anim (2021), technology is described as the collection of techniques, skills, methods, and procedures utilized in the creation of products and services or the achievement of goals such as scientific research, and it may be incorporated in machines to allow for operations without thorough understanding of their workings. According to Utoware and Amiaya (2014), technology is the application of the scientific method to solving difficulties in our daily lives. Technology advances man's progress in his environment, but moderation and control must be exerted to guide its use to addressing man's issues; otherwise, it may be deceptive in and of itself. Technology has always been present in some form or another in the teaching and learning environment. It has been included in the teacher's professional toolbox, which is one of the tools that they utilize to help kids learn (Iheukwumere, Uteh & Nkoro, 2018). Technology has evolved considerably throughout the years, and its increasing variety and accessibility have extended instructors' toolboxes and opportunities. Ile, Udegbunam and Odimmega, (2015) asserted that technology has become a fundamental aspect of the educational process, leading to the creation of new concepts in instructional logistics. The introduction of Information and Communication Technology (ICT) devices and equipment has made teaching and learning

more concrete, real, and result-oriented. There has been an increasing worry about the usage of new technologies since the emergence of ICT. According to Baba, Ameh, and Ezeahurukwe (2018), technology has the capacity to transform the traditional teaching and learning process. Baba, Ameh, and Ezeahurukwe went on to suggest that technology may erase geographical and temporal obstacles to education, drastically expanding access to lifelong learning. The speedy advancement in contemporary education has further mounted pressure on the need for integration of more technologies in tertiary education in Nigeria.
According to Onojetah in Nwalado and Eshemogie (2023) technology integration is "how" to utilize technology to encourage good improvements in teaching approaches on a global scale. It also improves the utilization of new instructional modes of teaching and learning in tertiary institutions in order to fulfill the needs of current academic trends. Teaching fundamental computer skills and software packages in a separate computer class is not enough to integrate technology into classroom learning. Successful technology integration must occur across the curriculum in ways that enrich and deepen the learning experience. It must, in particular, enable four crucial components of learning: active engagement, group involvement, regular contact and feedback, and access to real-world experts (Wordu & Anim, 2021). The integration of technology in the business education programme has continued to elicit scholarly debate.

Business education, according to Emesoba (2017), is a specialized phase of vocational education that prepares students to enter teaching and office occupations as capable and intelligent members of the labor force. Obiete, Nwazor, and Vin-Mbah (2015) regarded business education as a distinct academic programme that prepares its graduates to work autonomously as self-employed and employers of labor. According to Akpan, Nwokocha and Naboth in Saleh, Mohmoud and Azare (2020), business education is a dynamic course of study that provides students with information and skills for and about business. According to Nwazor and Udegbunam in Wordu and Anim (2021), business education is a vital aspect of vocational education that aims to empower learners to become productive in teaching, paid job, and self-employment through the efficient use of ICTs. Sadly, utilizing these technologies in the business education programme has proved elusive.
Integrating technology in the business education programme need huge capital input, and developing countries like Nigeria must be cautious in deciding which types of ICT is use to implement while also keeping economies of scale in mind (Iheukwumere, Uteh & Nkoro, 2018). As a result, stakeholders have urged the government (tertiary universities) and the commercial sector to form a Public Private Partnership (PPP) to provide infrastructure, finance, and expertise for the provision and implementation of ICT in tertiary institutions. Because the government alone cannot shoulder the burden of functional education in Nigeria, the private sector must play a more active role through PPPs.

A public-private partnership (PPP) is a government service or private business initiative that is sponsored and managed by a collaboration between the government and one or more private sector enterprises (Saleh, Mahmoud & Azare, 2020). PPP is a contract between a public sector or authority and a private party in which the private party provides a public service or project while bearing significant financial, technical, and operational risk. PPP refers to a government service or private business venture that is formed and run as a result of a collaboration between the government and one or more private sector enterprises. A public-

private partnership is a contract between a public sector body and a private party in which the private party delivers a public service or project while bearing significant financial, technical, and operational risk. In some variants of PPP, the cost of utilizing the service is paid solely by the users and not by the taxpayer. In some forms (particularly the private financing initiative), capital investment is made by the private sector on the basis of a contract with the government to deliver agreed-upon services, with the government bearing all or part of the cost (Barlow, Roehrich, & Wright, 2013). Because technology instruments are frequently expensive to purchase and maintain, governments are increasingly relying on commercial partners to help construct national infrastructure (Sarvi, Balaji & Pillay, 2015). Pillay and Hearn (2010) stated that some PPPs may be used to fund infrastructure improvements and for professional development.

Some of these PPP initiatives for infrastructural improvement are through joint venture, seeding capital and leasing agreement (Carabine, 2016). In a joint venture, the government invests jointly with private sector partners in developing information technology (IT) infrastructure and either runs the project jointly with the private sector or outsources infrastructure management with caveats in place to ensure equity and quality of service provision. On an agreed-upon basis, all partners share the risks and profits (Mulhanga & Lima, 2018). The government establishes a solid legal and legislative framework to guarantee that access to IT infrastructure is provided at fair market value. On the other hand, government and business firms get into leasing and contractual agreements to employ ICT resources to accomplish public education policies (Pillay & Hearn, in Saleh, Mahmoud & Azare 2020.). Typical lease agreements include: (i) data hosting and storage spaces, where secure systems that can withstand natural disasters (such as hurricane force winds and flooding) and have a backup power supply are important considerations; (ii) access to specific bandwidth on networks to ensure optimum speed at all times; and (iii) supply of equipment such as computers and other digital equipment with minimum specifications. To stay up with continual technical and software advances, many equipment leasing agreements include a time-based (3-5 year) equipment update obligation (Pillay & Hearn, 2010.).

Another area in which PPP can help in the funding of education is the provision of educational and professional training. The Cisco Academy, for example, delivers online training through agreements with public and commercial colleges or universities that they identify as Learning Solutions Partners or Cisco Learning Partners (Pillay & Hearn, 2010.). The public institutions either include Cisco training into their programs to boost the relevance of their programs and student enrollments, or they give space to deliver the training for a charge. Corporate online training: The flexibility and cost-effectiveness of producing and providing e-education and training, which has historically been the duty of universities and IT suppliers, has piqued the interest of huge multinational commercial corporations. However, the extent to which these PPP initiatives will enhance technology integration in the tertiary business education programme in Delta State has not been empirically proven. It is against this background that the researcher examined the extent PPP funding initiatives would enhance technology integration in business education programmes in tertiary institutions in Delta State.

Statement of the Problem

Business education programme as an academic programme that is geared towards preparing students for the demands of the world of work has struggled to integrate technology in their curriculum and administration. This situation is sad because the business education programme is supposed to be a pace setter in the use of innovations in carrying out curricular and co-curricular activities. These challenges seem to be reflected in the quality of graduates produced by the programme. From all indications, it appears that the problem of technology integration can be blamed on two major factors; lack of ICT infrastructure and lack of knowledge of the use of ICT by students and teachers. The researcher wonders why the use of public private partnership has not been extensively adopted for improving funding for ICT in the business education programme. This is the trust of this study.

Purpose of the Study

The study specifically determined the extent:

1. Public private partnership funding initiatives for providing infrastructure will rebrand technology integration in business education in tertiary institutions in Delta State.
2. Public private partnership funding initiatives for providing educational and professional training will rebrand technology integration in business education in tertiary institutions in Delta State.

Research Questions

The following research questions guided the study:

1. To what extent will public private partnership funding initiatives on infrastructure rebrand technology integration in business education in tertiary institutions in Delta State?
2. To what extent will public private partnership funding initiatives on educational and professional training rebrand technology integration in business education in tertiary institutions in Delta State?

Method

Descriptive research design was adopted for the study. The study was carried out in Delta State. The population for the study comprised 109 lecturers of Business Education Programme in the five tertiary institutions (Delta State University, Abraka, Federal College of Education (Technical), Asaba, University of Delta Agbor, College of Physical and Health Education, Morsogar and College of Education, Warri) all in Delta State. The instrument for data collection was a structured questionnaire titled "Questionnaire on Public Private Partnership Funding Initiatives for Rebranding Technology Integration in Business Education in Tertiary Institutions (QPPPFIRTIBETI)". The instrument was structured on a 4-point rating scale of Very High Extent (VHE), High Extent (HE), Low Extent (LE) and Very Low Extent (VLE). The instrument was in two clusters. Cluster 1 contains 7 items eliciting information on the extent public private partnership funding initiatives on infrastructure would rebrand technology integration in business education in tertiary institutions while cluster 2 contains 6 items on the extent public private partnership funding initiatives on educational and professional training would rebrand technology integration in business education in tertiary institutions. The instrument was validated by three experts, one from School of Secondary Education (Business), Federal College of Education (Technical), Asaba, and two from Delta State University, Abraka.

Through a pilot study, the instrument was administered on 10 business educators in University of Benin, and Federal College of Education (Tech) Ekiadolor, Edo State who were not part of the population of the study. The application of Cronbach Alpha reliability method on the obtained data yielded coefficient values of 0.87 and 0.80 for the two clusters with an overall reliability co-efficient of 0.84. The instrument was administered to the respondents, with the help of four research assistants in their offices on the spot and the respondents were given enough time to fill the questionnaire after which the instrument was retrieved. However, in situation where a respondent was not disposed to fill the questionnaire on the spot, an appointment on the date of retrieval was made. This lasted for two weeks. Out of the 109 copies of questionnaire distributed, 94 were retrieved in good condition and used for the analysis of data. Data collected from the respondents were analyzed using mean and standard deviation.

The mean value was used to answer the research questions while standard deviation was used to ascertain the homogeneity or otherwise of the respondents' ratings. Any item with mean score between 2.50 and above was considered to a high extent while any item with mean score below 2.50 was considered low extent.

Results

Research Question 1

To what extent will public private partnership funding initiatives for providing infrastructure rebrand technology integration in business education in tertiary institutions in Delta State?

Table 1: Respondents Mean Ratings on the Extent PPP funding Initiatives will rebrand technology Integration in Business Education in Tertiary Institutions in Delta State. (N=94)

S/N	Item Statements	X	SD	Remarks
1.	Government and private organization go into joint venture in providing ICT infrastructures	3.28	.87	High Extent
2.	Government outsources the management of the ICT infrastructure with caveats in place to ensure equity and quality of service provision	3.30	.90	High Extent
3.	Government puts in place a sound regulatory and policy framework to ensure that access to the IT infrastructure is available at fair market value.	3.45	.81	High Extent
4.	Capital investment is made by the private sector for the provision of ICT equipment on the strength of a contract with government to provide agreed services.	3.23	.97	High Extent
5.	Governments provide capital for initial infrastructure development with an expectation that the private partners (both	3.85	1.00	High Extent

	local and foreign) will further develop the infrastructure for the business education programme as the demand grows.			
6.	Governments also seek funds and technical expertise from international donor agencies to invest in innovative pilot projects	3.50	.89	High Extent
7.	Government lease private network infrastructure o gain access to certain bandwidth on networks to ensure an optimum speed at all times for the business education programme	3.11	.94	High Extent
	Cluster Mean	**3.38**		**High Extent**

Data in Table 1 reveal that the respondents rated items, 1 to 7 to a high extent with mean ratings ranging between 3.11 to 3.85. The standard deviation scores of .81 to 1.00 show that the respondents' opinions were close. The cluster mean of 3.38 indicate that public private partnership funding initiatives for providing infrastructure will rebrand technology integration in business education in tertiary institutions in Delta State to a high extent.

Research Question 2

To what extent will public private partnership funding initiatives for providing educational and professional training rebrand technology integration in business education in tertiary institutions in Delta State?

Table 2: Respondents Mean Ratings on the Extent PPP funding Initiatives for Providing Educational and Professional Training will rebrand technology Integration in Business Education in Tertiary Institutions in Delta State. (N=94)

S/N	Item Statements	X	SD	Remarks
1.	Private IT companies providing online training through partnerships with business education programme in public tertiary institutions	3.34	.89	High Extent
2.	Private ICT firms organizing training programmes on new softwares for business educators	3.42	.86	High Extent
3.	The business education programme collaborating with leading ICT firms to jointly develop new e-education program	3.38	.77	High Extent
4.	The business education programme collaborating with leading ICT firms to jointly deliver new e-education program	3.21	.93	High Extent
5.	The business education programme engaging in joint research projects with private leading ICT firms	3.36	.82	High Extent
6.	The business education programme can	3.46	.98	High Extent

collaborate with the corporate sector as well as other academic programme through tertiary institution consortiums to strengthen their capacity for global research and knowledge creation.		
Cluster Mean	**3.36**	**High Extent**

Data in Table 2 reveal that the respondents rated items, 1 to 6 to a high extent with mean ratings ranging between 3.21 to 3.46. The standard deviation score of .77 to .98 shows that the respondents' opinions were close. The cluster mean of 3.36 indicate that public private partnership funding initiatives for providing educational and professional training will rebrand technology integration in business education in tertiary institutions in Delta State to a high extent.

Discussion

The study revealed that public private partnership funding initiatives for providing infrastructure will rebrand technology integration in business education in tertiary institutions in Delta State to a high extent. The finding of the study may have resulted because through collaboration between government and the private sectors, the business education programme can enjoy technological resource provision. This is because through PPP agreements, capital intensive ICT infrastructures that would have been difficult to acquire would easily be provided. This finding is in agreement with Ile, Udegbunam and Odimmega (2015) who asserted that public private partnership could assist in providing ICT infrastructure in the business education programme. Carabine (2016) noted that experiences in countries like India and Malaysia show that PPP can be a veritable tool for fostering improved ICT integration in education. This view is further enunciated by Sarvi, et al., (2015) who reported that PPPs have grown in importance, partly as a result of the high capital costs and novel sorts of expertise connected with interventions based on ICT. Building and providing access to high quality connectivity requires a significant amount of funding. Either the project is collaboratively managed with the private sector, or infrastructure management is outsourced with safeguards in place to ensure equitable and high-quality service delivery.

Furthermore, finding of the study revealed that public private partnership funding initiatives for providing educational and professional training will rebrand technology integration in business education in tertiary institutions in Delta State to a high extent. This finding may have resulted because partnership is required for students and lecturers to have first- hand experiences with private software developers and firms so as to understand how these IT gadgets and software can be used for improving the quality of teaching and learning in the business education programme. This finding is in agreement with Sarvi, et al., (2015) who reported that PPP expands ICT's potential as a formidable multiplier of educational opportunities and a way to provide cutting-edge educational services at all levels and types of education. In order to overcome challenges such a lack of funding, technical know-how, and project management skills when integrating ICT in education, support from the business sector may be exploited (Pillay & Hearn, 2010).

Conclusion

The researcher concludes based on the findings of the study that public private funding initiative will facilitate technology integration in tertiary institutions in Delta State. Involving private players in funding technology integration would enhance the level of technological infrastructural provision and professional education as well as training of business education students and lecturers. PPP funding arrangements will enhance firsthand learning experience from technology experts as well as providing avenues for research and development in the business education programme.

Recommendations

The researcher makes the following recommendations based on the findings of the study:

1. To institutionalize collaborative or public-private partnership (PPP) programmes for technology integration in business education programmes in Nigeria's tertiary institutions, the federal and state governments should develop a regulatory framework.
2. The National University Commission (NUC), the College of Education Academic Staff Union (COEASU), and the Federal and State Ministries of Education should routinely organize interactive sessions with IT experts to discuss ways to enhance ICT provisions, integration, and management in educational programmes like the business education programme in Nigerian tertiary institutions.
3. The Federal and State governments in conjunction with the financial institution must design a risk-sharing loan program so that the risk is shared between the two parties in the event that the loan-financed project fails.

References

Akpan, U.I., Nwokocha, O.A. & Naboth, E.G. (2018). Curriculum challenges and the preparation of business education students for global competitiveness and trade liberalization. *Nigerian Journal of Business Education (NIGJBED), 6* (2), 131-141.

Baba, E. I., Ameh, A. O., & Ezeahurukwe, N. L. (2018). Critical competencies required by office technology and management educators for the e-world of higher education. *Association of Business Educators of Nigeria, 5*(1), 186-193.

Barlow, J., Roehrich, J.K. & Wright, S. (2013). Europe sees mixed results from public private partnerships for building and managing health care facilities and services. *Health Affairs, 32*(1), 146-154

Carabine, D. (2016). *How ICTs and collaboration with NRENs are changing the face of higher education.* Proceedings and Report of the 9th UbuntuNet Alliance Annual Conference, pp 17-22.

Emeasoba, N. C. (2017). Partnership between universities and industries in promoting business education programme: Issues and challenges. *Nigerian Journal of Business Education (NIGJBED), 4* (2), 198-215.

Garba, S.A., Singh, T.K.R., Yusuf, N.B.M. & Ziden, A. A. (2013). An overview of technology integration in Nigerian colleges of education. *Journal of Education and Learning, 7* (1), 35-42.

Iheukwumere, O. C., Uteh, C. K., & Nkoro, M. K. (2018). Strategies for effective utilization of new technologies in teaching and learning OTM application areas in polytechnics in Abia State. *Association of Business Educators of Nigeria, 5*(1), 164-171

Ile, C. M, Udegbunam, E.O. & Odimmega, C. G. (2015). Challenges of integrating new technologies for teaching and learning in the business education programme of colleges of education in South-East Nigeria. *Education Journal*. *Special Issue: New Dimensions in Vocational Business Education Teaching and Learning, 4* (6-1), 9-14. doi: 10.11648/j.edu.s.2015040601.12.

Johnson, A. M., Jacovina, M. E., Russell, D. E., & Soto, C. M. (2016). Challenges and solutions when using technologies in the classroom. In S. A. Crossley & D. S. McNamara (Eds.) *Adaptive educational technologies for literacy instruction* (pp. 13-29). New York: Taylor & Francis.

Mulhanga, M. M. & Lima, S. R. (2018). *Building sustainable NRENs in Africa - A technological and e-education perspective*. Springer International Publishing AG.

Nwalado, S.H & Eshemogie K. (2023) Technology-Based Instructional Management Skills Required By Business Educators for Effective Implementation of Business Education Curriculum in South-South, Nigeria. *Nigerian Journal of Business Education,* 10(1) 258-268

Obiete, I. A., Nwazor, J. C. & Vin-Mbah, F. F. (2015). Strategies for teaching business education students in Nigerian tertiary institutions for cooperate governance. *Journal of Education and Practice, 6*(18), 170-175.

Onojetah, S. O. (2014). Business Education curriculum and integrations of new technologies. *Nigeria Journal of Business Education, 2*(1), 132-144

Pillay, H. & Hearn, G. (2010). *Public-private partnerships in ICT for education*. https://digital-

review.org/uploads/files/pdf/2009-2010/ppp_in_ict4e.pdf.

Saleh, H., Mahmoud, A. & Azare, A. (2020). The role of public private partnership (PPP) in the development of quality education programmes in Nigeria for self-reliance and economic improvement. *African Scholars Journal of Contemporary Education Research (JCER-8), 19*(8), 295-303.

Sarvi, J., Balaji, V. & Pillay, H. (2015). Public–private partnerships in information and communication technology for education. *Asian Development Plan*, 49, 1-8.

Utoware, J. D. A. & Amiaya, A. O. (2014). Impact of new technologies on tertiary Business Education curricula. *Educational Research International, 3*(1), 40-47.

Wordu, H. & Anim, D. (2021). Integrating modern technologies in teaching and learning of business education programmes in Tertiary Institutions in Rivers State, Nigeria. *International Journal of Innovative Education Research, 9*(2), 144-152.