



PRIVATE SECTOR PARTICIPATION AND THE PROVISION OF FACILITIES FOR UNIVERSITIES BUSINESS EDUCATION UNDERGRADUATES' ACQUISITION OF 21ST CENTURY SKILLS

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ABSTRACT: *This study investigated private sector participation and the provision of facilities for universities business education undergraduates' acquisition of 21st century skills. It looked at infrastructural and instructional facilities. Two research questions were answered while two hypotheses guided the study. The population comprised heads of departments, heads of units, senior non-academic staff, 300 and 400 levels students in the 2021/2022 academic session from Vocational and Technical Education departments in which business education is a part drawn from two institutions: University of Calabar (UNICAL) and Cross River University of Technology (CRUTECH). A sample of 124 respondents out of a population of 376 was drawn therefrom. Of this number, 122 copies of the instrument representing 98.39% return rate was achieved. Census technique was used to select the heads of departments, heads of unit and senior non-academic staff, purposive sampling was used in selecting 300 and 400 levels students because they were considered relatively knowledgeable concerning the items contained in the questionnaire, while systematic random sampling was adopted in selecting the 300 and 400 levels students that actually responded to the questionnaire. A validated four point rating scale structured questionnaire titled Private Sector Participation and the Provision of Facilities for Universities Business Education Undergraduates' Acquisition of 21st Century Skills Questionnaire (PSPPFUBEUSAQ) was used for data collection. A reliability estimate of .84 was achieved for the instrument using Cronbach alpha reliability coefficient after a pilot test. Mean and standard deviation were used in answering the research questions, while population t-test was used in testing the hypotheses at .05 level of significance. Findings revealed among others that the extent of private sector participation in the provision of infrastructural facilities for universities business education undergraduates' acquisition of 21st century skills is significantly low. Based on this, it was recommended that the government as well as the regulatory authorities should as a matter of importance enact policies that will mandate private sector organizations to regularly donate educational facilities to institutions of learning in their operational areas. Such donations can be carried out as part of their philanthropic corporate social responsibilities which could aggregate a certain percentage of their annual profits.*

KEYWORDS: Private Sector Participation, Provision of FACILITIES, Business Education, 21st Century Skills, Universities



INTRODUCTION

Education is said to be evolving, and the manner in which learners are prepared to face the world of work is equally evolving. In the beginning of the 19th century, for example, the focus of education was on the three Rs (of reading, writing and arithmetic) as the basic skills taught in schools (Wikipedia, 2022). In the 20th century, the triad concerns that underpinned the development of education were: the child, science, and society. The foundations for this trilogy were laid by the then “progressive education movements” supporting child-centred education, scientific-realist education, and social reconstruction (Britannica, n.d.). In the 21st century, technology has fittingly permeated a large gamut of society’s everyday endeavour and thus becomes the “heart and soul” of living. The 21st (twenty-first) century according to Wikipedia (2023) is the current century in the *Anno Domini* era or Common Era, under the Gregorian calendar. It began on 1 January 2001 and will end on 31 December 2100. Meaning that we are presently in the 21st century. In this era, how students learn has basically changed. Today’s students are the initiatory generation to be fully plunged into technology. Having been born in a digital era, these students have been opened at an early age to technology above and beyond laptops (e.g., gaming, tablets, digital music players, webcams, and smart phones) (Prensky, 2011). As a result, how students engage in the learning process and interact, is different from that of students in previous generations. Hence, Prensky (2011) christened 21st century students “digital natives.”

Clearly, 21st century education is geared towards preparing students to handle envisioned changes in the employment world. And for the students to catch up with these expected changes and become relevant, institutions of learning like the universities and their academic staff need to rise to the occasion by consciously preparing students for jobs that have not yet been created, or that which have been created but not yet deployed to their part of the world. This is essential because from now on, and into the foreseeable future, it is believed that there will be technologies that have not yet been invented; there will be ways of living, thinking and learning that have not yet emerged. As such, students ought to graduate from universities laden with skills, attitudes and values that fitly describes the digital information age that we presently are.

As Griffin and Care (2015) explained, in the 21st century, the focus of education is primarily founded on the preparation of students for new ways of thinking: ways that involve creativity, critical analysis, problem solving and decision making. Students need to be prepared for new ways of working that will beckon on their communication and collaboration skills. They will need to have a firm familiarity with new tools that include the capacity to recognize and exploit the potential of new technologies. In addition, they will need to learn to live in this multifaceted new world as active and responsible global citizens. The employment that these students are likely going to enter will increasingly require critical and expert thinking skills and complex forms of communication.

At the global stage, it has been established that developed countries, such as the United States of America, Canada, England, and others have dwelt upon these new skills needs and generated frameworks to teach and acquire 21st century skills, whereas other countries especially developing and underdeveloped ones including Nigeria have continued to teach with moribund curriculum of the previous century. To disunite from the chunk of countries associated with the use of superannuated approach towards teaching and learning in the university, the National Universities Commission (NUC) recently released the Core Curriculum and Minimum Academic Standards for the Nigerian University System (CCMAS, 2022). This vogue



document highlights that the study of business education programme will afford learners the ample opportunity to learn and acquire 21st century skills that will enable them fit into and take up contemporary business opportunities, employment opportunities and become self-employed or employers of labour. The 21st century skills enunciated in the NUC CCMAS (2022) policy document to be acquired by business education undergraduates are; team work skills, digital literacy skills, creative and innovative skills, information literacy skills, media literacy skills, digital citizenship skills, flexibility skills, critical thinking skills, as well as multitasking skills.

Interestingly, the 21st century skills concept is believed on one hand to be triggered by the sheer notion that teaching students the most relevant, useful, in-demand, and universally applicable skills should be prioritized in today's schools, and on the other hand by the related belief that many institutions as at date may not have adequately prioritize such skills or effectively teach them to their learners. These fundamental persuasions hinges on the unmixed fact that the present students, as well as those who will come of age in the 21st century, most likely need to be tutored diverse skills than those learned by their peers in the 20th century or earlier, and that the skills they learn should mirror to a reasonable extent the exert demands that will be placed upon them in a complex, competitive, knowledge-based, information-age, technology-driven economy and society.

If these students fails to acquire these skills while in school, or if they poorly acquire them, they may find it daunting to be employed; and for the privileged few who may secure employments, they may be paid paltry amount vis-a vis what they would have rightly earned if they has possess the requisite skills (Edet, 2020).

According to the Great School Partnership (2016), the term **21st century skills** is said to be a broad set of knowledge, skills, work habits, and character traits that are believed by educators, school reformers, college professors, employers, and others to be critically important to success in today's world, particularly in collegial programs and contemporary careers and workplaces. Although 21st century skills can be applied in all academic subject areas, and in all educational, career, and civic settings throughout a student's life. It should be noted that the "21st century skills" concept encompasses a wide-range and amorphous body of knowledge and skills that are not easy to define and that has not been officially codified or categorized (Great School Partnership, 2016).

However, the Great School Partnership (2016) overview of the knowledge, skills, work habits, and character traits easily linked with 21st century skills include: (a) Critical thinking, problem solving, reasoning, analysis, interpretation, synthesizing information; (b) Research skills and practices, interrogative questioning; Creativity, artistry, curiosity, imagination, innovation, personal expression; (c) Perseverance, self-direction, planning, self-discipline, adaptability, initiative; (d) Oral and written communication, public speaking and presenting, listening; (e) Leadership, teamwork, collaboration, cooperation, ability in using virtual workspaces; (f) Information and communication technology (ICT) literacy, media and internet literacy, data interpretation and analysis, computer programming; (g) Civic, ethical, and social-justice literacy; (h) Economic and financial literacy, entrepreneurialism; (i) Global awareness, multicultural literacy, humanitarianism; (j) Scientific literacy and reasoning, the scientific method; (k) Environmental and conservation literacy, ecosystems understanding; and (l) Health and wellness literacy, including nutrition, diet, exercise, and public health and safety.



Wagner (2008) on his part described these skills as survival skills, and list the following as what constitutes 21st century skills: critical thinking and problem solving; agility and adaptability; collaboration and leadership; initiative and entrepreneurialism; accessing and analysing information; effective oral and written communication; and curiosity and imagination. On their part, Trilling and Fadel (2009) suggest three categories of 21st century skills outlined as follows: learning and innovation skills (critical thinking and problem solving, communications and collaboration, creativity and innovation); digital literacy skills (information literacy, media literacy, information and communication technologies [ICT] literacy); and career and life skills (flexibility and adaptability, initiative and self-direction, social and cross-cultural interaction, productivity and accountability, leadership and responsibility). No matter how these skills are termed or classed, they all have to do with dealing with the complex world we are living in, and are mainly focused on complex thinking, learning, and communication skills, and they are hard to teach (Saavedra & Opfer 2012).

Admittedly, the 21st century hallmarks the transition from the industrial age to the knowledge age (Erdem, Bağcı, & Koçyiğit, 2019), and this transition entails a paradigm shift from material labour to immaterial and weightless production, for which process-oriented skills, such as teamwork or problem solving are needed. In this era, contemporary workplaces need employees who are able to proffer solution to non-routine problems, carryout complex communication, and possess social skills. Given the demands of the new century workplace, students (and in particular, business education students) need to acquire these much-desired set of skills to be able to carve a niche for themselves in a complex and constantly evolving settings.

Business education as a matter of concept is seen by Nwosu and Okoro (2018) as a programme that equips recipients with the basic business knowledge, functional skills, and attributes for vocations that enable them become employees, employers and entrepreneurs. The NUC CCMAS (2022) describes it as a specialized profession designed to avail students' with knowledge, skills and competences that will lead to employability and advancement in office occupations, pedagogical skills in teaching business subjects at various levels of educational system as well as self-employment or as employers of labour. Its core aim is to fill the gap between knowledge and practice by exposing students to general education as well as specialized areas in accounting, entrepreneurship, marketing and office management. It is one of the programmes of studies offered in Nigerian universities and requires functional facilities for effective teaching and learning

Therefore, facilities are considered to be those things designed and / or created to serve a particular function and to afford a particular convenience or service. It is simply a place, amenity, building or a piece of equipment provided or installed for a definite purpose. Facilities are found everywhere, in schools, worship centres, hospitals, homes, recreational centres, offices and all around us. The physical conditions of facilities wherever they are situated serves as important contributor or otherwise to the attainment of predetermined objectives of their owners, users and/or occupiers. Agreeably, Ikutal, Otum and Edet (2023) assured that infrastructural and instructional facilities utilization can go a long way in closing the widening gap in employability skills acquisition among vocational and technical education graduates. In tandem with this and in this study, however, facilities are classed into two broad categories viz: infrastructural and instructional facilities. Specifically, the basic infrastructural facilities of interest are; lecture halls/auditoriums, resource room/library (including digital or electronic



library), model office/demonstration laboratory, fully furnished/equipped offices, furniture for lecture halls as well as computer laboratories.

Amaewhule and Aruchi (2018) describe educational infrastructural facilities as those resources used for effective development and implementation of any educational programme. They authors cited the followings as what constitute infrastructural facilities in education: equipment, laboratory, clinic, studios and classrooms. Ehiamentalor in Tayo, Okotoni and Adebakin (2012) sees educational infrastructure as the operational inputs of every instructional programme that constitutes necessary elements for teaching and learning. In the author's words, these include buildings, laboratories, machinery, furniture as well as electrical fixtures. He added that these must be functional vis-à-vis other structures in the learning community like; health centres, libraries, and good internal roads network and must be large enough to allow for future expansion as admissions capacity widens. Relatedly, Osagie (2003) asserts that infrastructure represents the aesthetic picture of the school conveyed by the position of structures in relation to one another. It also represents the empirical relevance of the totality of the school environment for the realization of the school business of teaching and learning. Yet, Ikutal, Otum and Edet (2023) enunciated for instance, that the prevailing poor employability skills acquisition among undergraduates of technical and vocational education which ought not to be a characteristic feature of these set of learners may be caused by poor facilities utilization for teaching and learning. Unequivocally, these scholarly persons emphasized that infrastructural and instructional facilities utilization appear to be part of the appropriate tools for trimming the widening gap of employability skills acquisition among technical and vocational education students.

From the foregoing, there is no denial that a strong and qualitative infrastructural facilitates improves students learning outcomes, stem the rising tide of dropout rates and at the same time strengthens the completion rate as well as students' satisfaction with his or her university's programmes of study amongst other benefits. This is because buildings, classrooms, laboratories, and equipment are critical elements of learning in universities. And the acquisition of 21st century skills may be futile without the present of aesthetically pleasing infrastructural facilities. Commenting on this too, Ikutal and Edet (2018) lamented that the growing number of students admitted yearly into technical and vocational education programmes in which business education is a part keeps growing in leaps and bounds to an extent that existing facilities have been overstretched, some of the students have limited access to the use of the available facilities and the teacher students ratio keeps widening. As a result, quality vocational and technical education as was abnitio conceived have been compromised and could gradually fizzle out. Teixeira, Amoroso and Gresham (2017) report that a study conducted in the U.K. found that environmental and design elements of school infrastructure together explained 16 percent of variation in students' academic progress. In Nigeria, Akinkuade and Oredein (2021) hinted that in many institutions, furniture (seats and desks) which are basic classroom requirements are inadequate to the despiteful extent that students sit on windows, while others hang in clusters outside the lecture venue during lessons delivery. They duo authors described further that while so many buildings are dilapidated and yearns for maintenance and/or new ones, there is also the issue of inadequate conveniences for staff and students. Equally, too, so many lecturers though with offices are without tables and chairs, and many others are in offices with damaged windows, doors, floors and some with leaking roofs. Explaining further, Ikutal, Edet and Abeng (2018) informed that facilities in technical and vocational education in Nigerian universities are in a state of decay, moribund, obsolescence, and to a large extent non-



existence. A deplorable condition they trio authors averred has subjected graduates of the programme who would have been the drivers of technological and economic development agenda to becoming theory majors and practical minors.

Tayo, Okotoni and Adebakin (2012) investigated perceived quality of infrastructure in selected Nigerian universities. Three research questions and one hypothesis guided the study. Four universities- two federal and two states from south-west Nigeria were selected for the study. The subjects were 300 and 500 levels students from the faculties of engineering and science from where a sample of 800 respondents was randomly selected. A 20 item self-designed questionnaire titled “Infrastructure and Quality Assurance Questionnaire (IQAQ)” and available Infrastructure Checklist were used for data gathering. A reliability estimate of .76 was achieved for the instrument using Cronbach alpha reliability coefficient. Descriptive statistic was used to answer the research questions, while independent t-test was used in analysing the only hypothesis at .05 level of significance. Finding revealed the existence of inadequate infrastructural facilities in both the state and federal universities. Based on this, it was recommended that basic infrastructure like electricity, pipe-borne water, and good road network should be put in place for teaching and learning. From the loathly finding of that study, it is therefore not surprising when Pihie (2009) and Azikiwe (2010) attributed the universities graduates’ lack of acquisition of employability skills to the sorry state of infrastructural facilities for teaching and learning.

Instructional facilities also referred to as teaching and learning materials are any collection of materials either animate or inanimate utilized by a teacher in a teaching and learning situation to aid in the attainment of predetermined learning objectives. They assist students concretize learning experience in a way that makes learning exciting, interesting and interactive. According to Eze (2015), instructional facilities can alternatively be called teaching materials, curriculum aids or educational materials. They include pictures, diagrams, wall charts, time charts, maps and atlases. They are commonly classified as two dimensional aids. But Ali (2004) in his description of the three dimensional aids named teaching materials under this category to include; models, templates and specimens; projected aids which consist of film strips, slides, micro projectiles and overhead projector. Others he said are audio aid which includes radios and tape recorders, while audio visual aids consist of educational television. Presently, computers have been added as part of instructional facilities.

In the view of Owoeye (2011), all things deployed to assist, enable, influence, or promote the acquisition of knowledge, competences, and abilities are termed instructional facilities. In his averment, such include; computers and multimedia in the classroom as well as suitable books in the library for teaching and learning. Ogbondah (2013) enunciated that textbooks, whiteboard, and equipment such as computer, projector, television, and video should be installed in classrooms. The scholar added that if these are installed, lecturers can give their lessons more quickly and students can undertake independent study without difficulties owing to the availability of functional instructional facilities. Essentially, the availability of instructional facilities, Olumorin, Yusuf, Ajidagba, & Jekayinfa (2010) averred is vital to creating effective monitoring for the delivery of educational lessons. Of importance, the basic instructional facilities considered in the present study include; computers, internet infrastructure, public address systems, textbooks/periodicals, projector, printers, scanners, photocopier, paper shredder, software packages, guillotine machine, filing cabinets, flannel board, white board, interactive board, professional journals and business dictionary.



For Ibrinke, Oloye, Ojokobirikale and Sokunbi (2022), there is a nexus between the facilities used by instructors and the learning outcomes from the students. Such nexus brings about benefits which include enhanced learning capacity, skills acquisition, as well as the development of positive attitude towards learning. Arguably, instructional facilities can be used to boost students' learning capacity through self-teaching or assisted learning. And schools with a good number of functional teaching facilities believably fares better than schools with fewer instructional resources. This conviction is supported by a research carried out by Adeogun (2001) which revealed that private schools students outperformed their counterparts in public schools owing to the availability and appropriateness of teaching and learning resources. This devolve on the fact that there are limited available instructional facilities in public schools, and glaringly, both teaching and learning resources are scanty. The author concluded by opining that if functional instructional facilities are not provided, effective teaching and learning may not take place. On his part, Mwiria in Ibrinke, Oloye, Ojokobirikale and Sokunbi (2022) posited that schools with proper teaching and instructional facilities like textbooks, charts, drawings apparatus, and real items for students to see, hear, and experience, have a greater likelihood of attaining academic excellence than schools without such resources.

Shockingly, this challenge of inadequate, dilapidated and obsolete educational facilities seem to be an issue that affect even the primary and secondary schools as well. Ngwenya in Ibrinke, Oloye, Ojokobirikale and Sokunbi (2022) conducted a study to ascertain the effect of physical instructional facilities on pupils' academic achievement in Tanzanian primary schools. The author interviewed instructors and students and submitted that pupils' perceived academic achievement was related to competent teaching and instructional resources. He made a case for the provision of adequate instructional facilities in order to deliver high-quality education. He thus reported that this was the maiden research of its type in Tanzania that related the function of physical facilities to students' evaluations of school success. However, the study only looked at physical infrastructure (that is, infrastructural facilities), and ignored educational facilities (which are instructional facilities). Physical facilities such as classrooms, seats, and desks in the author's view do not promote effective teaching and learning. Rather, he asserts that educational facilities (which are instructional facilities) such as relevant and appropriate text books and other teaching and learning materials are necessary aids that should be provided.

Innocent (2021) carried out a study to investigate educational facilities and students' academic achievement in selected secondary schools in Port Harcourt local government area of Rivers State, Nigeria. The study which adopted pure correlational research design sought to answer two research questions and was guided by two hypotheses. The population of the study consisted of 1,150 parents, teachers and students from five secondary schools in the study area. Simple random sampling technique was used to select 230 respondents for the study. A test re-test statistical procedure was used to determine the reliability of the instrument. While simple percentage and mean scores were used to answer the research questions, Pearson Product Moment correlation coefficient was used to test the relationship between the educational facilities and students' academic achievement. Finding revealed that in most schools, there was high students' populations which rendered school facilities and supplies inadequate. Based on this, it was recommended that computers and other instructional facilities should be provided in schools for effective teaching and learning. Such instructional facilities if provided can lead to the acquisition of 21st century skills by universities business education undergraduates.



After an in depth analysis of the contributions of infrastructural and instructional facilities in teaching and learning, the crux of the issue here is who is to provide these facilities? The FRN (2013) in response to this poser puts the responsibility of financing education (which includes the provision of facilities) chiefly on all tiers of government. This implies that the government is to make budgetary provisions for the funding of education across all levels. But how adequate has this funding from the government meets the educational needs of the nation? Edet, Onabe and Udida (2017) informed that in the history of Nigeria, funding of education which incorporates business education recorded huge success between 1971 and 1977, a period referred to as the oil boom era. According to them, the bulk of oil revenue was utilized in the provision of infrastructural facilities, instructional materials, libraries, classrooms, establishments of more universities and training centres amongst other laudable achievements.

Regrettably, the authors explained further that from 1978 till date, a period referred to as the post oil boom era, funding of education trickled to a worrisome extent that budgetary allocation to education never measured up with the UNESCO recommendation of 26 percent. Simply put, Nigeria's budgetary allocation to education has only exceeded 10 percent of total budget in the following years as seen in Table 1:

Table 1: Years Nigeria's allocation to education sector exceeded 10% of annual total budget

Years	Percentage of annual budget to education
1978	11.44
1983	10.40
1996	12.23
1997	17.59
1998	10.27
1999	11.12
2004	10.50
2006	11.00
2008	13.00
2012	10.00
2014	10.60

Source: *Budget Office of the Federation, 2023*

Despicably, the above table reveals that for the sixty three years of Nigeria's existence, the nation's budgetary allocation to education has only exceeded 10 percent in only eleven separate years. With such high level of under-funding, how can 21st century skills be acquired by universities business education undergraduates? Thankfully, the FRN (2013) encouraged the private sector to participate in the funding of education alongside all tiers of government.

The private sector is described as the part of a country's economic system that is run by individuals and companies, rather than a government entity (TechTarget, 2023). Birt (2022) defines it as the segment of the economy owned, managed and controlled by individuals and organizations seeking to generate profit. The author added that companies in the private sector are usually free from state ownership or control. However, there are times the private sector can collaborate with the government in a public-private partnership to jointly deliver a service or business venture to a community. The type of businesses classified as private sector includes; sole proprietorship, partnership, small and medium enterprises (SMEs), corporations and



multinationals, professional and trade associations, trade unions, etcetera. Most of these businesses are established for profit maximization purposes and their roles to the economy are very significant. For instance, they create employment opportunities, provide goods and services, promote diversification in business, assist in development, as well as stimulate economic growth. More so, they invest in research and development which leads to new products and services that boost the economy and improve people's lives. Above all, the private sector is an important source of tax revenue for the governments and a key driver of innovation.

Since the private sector is established to maximize returns on investments, most of them earn humongous profits as revealed in their annual financial statements. From these earnings, they are expected to carry out Corporate Social Responsibility (CSR) which is a kind of business self-regulation that helps companies positively impact society and their social accountability to themselves, stakeholders, and the people (Stein, 2022). CSR activities assist corporations and their employees build a stronger bond, boost morale, and help both employees and employers to feel deeply connected to the world around them which includes the universities. Consequently, by performing CSR, companies can be aware of its impacts on all aspects of society, including social, economic, education and environment. The type of CSR that this study is concerned with is Philanthropic Corporate Social Responsibility also known as Charitable Responsibility. This type of CSR occurs when organizations dedicate a portion of their earnings to reimburse the community and improve the world around them. Many companies donate to charities, some contribute to causes that do not directly relate to their business, while others go beyond creating charitable trust or organization to give back when emergencies like natural disasters occur.

Typically and most recently, the coronavirus commonly called COVID 19 pandemic that ravaged the world saw the Nigerian private sector donate more than ₦15.325 billion within a very short space of time from an infinitesimal fragment of Nigeria's private sector individuals and corporate bodies (that is, from almost 40 donors which made up of individuals and corporate bodies) (Nairametrics, 2021). Such show of magnanimity from individuals and corporate bodies in the banking, industrial, entrepreneurial, religious, and other notable sectors of the Nigerian economy is quite commendable. Incidentally, most of these donor organizations have their business presence in this study area, and it is believed that if peradventure they extend such openhandedness to the universities by donating state-of-the-art facilities for teaching and learning, the much craved 21st century skills will be acquired by universities business education undergraduates after all, most of these undergraduates shall be their employees upon graduation. This being true, to what extent has the private sector participated in the provision of educational facilities for teaching and learning in universities? The quest towards answering this stumper compelled the researchers to embark on this study.

Purpose of the study

The main purpose of this study was to investigate private sector participation and the provision of facilities for universities business education undergraduates' acquisition of 21st century skills. Specifically, the study sought to ascertain:

1. The extent of participation of the private sector in the provision of infrastructural facilities for universities business education undergraduates' acquisition of 21st century skills.



2. The extent of participation of the private sector in the provision of instructional facilities for universities business education undergraduates' acquisition of 21st century skills.

Research questions

The study sought to provide answers to the following research questions:

1. What is the extent of participation of the private sector in the provision of infrastructural facilities for universities business education undergraduates' acquisition of 21st century skills?
2. What is the extent of participation of the private sector in the provision of instructional facilities for universities business education undergraduates' acquisition of 21st century skills?

Hypotheses

The following hypotheses guided the study:

1. The extent of participation of the private sector in the provision of infrastructural facilities for universities business education undergraduates' acquisition of 21st century skills is not significantly high.
2. The extent of participation of the private sector in the provision of instructional facilities for universities business education undergraduates' acquisition of 21st century skills is not significantly high.

METHODOLOGY

The study adopted survey research design involving the use of questionnaire in a bid to gather information on private sector participation and the provision of facilities for business education undergraduates' acquisition of 21st century skills. Particularly, the study focused on the provision of infrastructural and instructional facilities. The study sought to provide answers to two research questions, and was guided by two hypotheses. The study area was Cross River State, one of the thirty-six states in Nigeria. 124 respondents from University of Calabar (UNICAL) and Cross River University of Technology (CRUTECH) were sampled from a population of 376. A multi-stage sampling procedure was adopted in this study which were; census sampling for selecting the heads of department, units heads, and senior non-academic staff; purposive sampling in selecting 300 and 400 levels students in the 2021/2022 academic session because they were considered relatively knowledgeable concerning the items contained in the questionnaire, and systematic random sampling for selecting the 300 and 400 levels students that actually responded to the questionnaire. This is presented in Table 2.

A four point rating scale structured instrument titled Private Sector Participation and the Provision of Facilities for Universities Business Education Undergraduates' Acquisition of 21st Century Skills Questionnaire (SPPFUBEUSAQ) with response options of Very High Extent (VHE), High Extent (HE), Low Extent (LE) and Very Low Extent (VLE) was developed for eliciting relevant information for the study. The scores for the response options were 4, 3, 2 and 1 respectively. The boundary limits for the response options were: VHE- 3.50-4.00; HE-



2.50-3.49; LE- 1.50-2.49; and VLE- 0.50-1.49. The cut-off point for the mean was calculated thus:

$$\frac{4+3+2+1}{4} = \frac{10}{4} = 2.5$$

This implied that any response with a mean score of 2.5 and above was considered as 'provided', but any one that was below 2.5 was considered 'not provided'. The instrument was validated by three experts in Business Education and three experts in measurement and evaluation. The reliability estimate of .84 was achieved for the instrument using Cronbach Alpha reliability coefficient after a pilot test. The instrument was administered personally by the researchers with the help of three assistants, and retrieved after completion. This was done after relevant information about the problem being researched were explained to the respondents. A coding key was designed to code all responses. Of the 124 questionnaires distributed, 122 copies (98.39%) were duly returned and used in the analysis. Mean and standard deviation were used in answering the research questions, while population t-test was used in testing the hypotheses at .05 level of significance.

Table 2: Population and sample distribution of the study

Subjects	Population			Sample		
	UNICAL	CRUTECH	TOTAL	UNICAL	CRUTECH	TOTAL
Heads of department	1	1	2	1	1	2
Units' heads	1	1	2	1	1	2
Senior Non-academic staff	8	4	12	8	4	12
300 level students	90	120	210	27	36	63
400 level students	70	80	150	21	24	45
Total			376			124

Source: *Field work, 2023*

RESULTS

Research question one:

What is the extent of participation of the private sector in the provision of infrastructural facilities for universities business education undergraduates' acquisition of 21st century skills?



Table 3: Mean rating and standard deviation on the extent of private sector participation in the provision of infrastructural facilities for universities business education undergraduates' acquisition of 21st century skills.

S/ N	Item statements	VH E	H E	LE	VL E	X	SD	REMARK S
1	Provision of lecture hall/auditorium	11	18	39	54	2.07	1.26	Low extent
2	Provision of resource room/library	8	5	49	60	1.75	1.14	Low extent
3	Provision of model office/demonstration laboratory	6	9	57	50	1.59	1.11	Low extent
4	Provision of fully furnished/ equipped offices	9	6	63	44	1.48	1.10	Very low extent
5	Provision of furniture for lecture halls/auditorium	29	25	31	37	2.61	1.31	High extent
6	Provision of computer laboratory	8	11	58	45	1.46	1.12	Very low extent
Weighted mean						1.83		Low extent

The data presented in table 3 revealed that the mean scores of respondents ranged from 1.46 to 2.61, with a weighted mean score of 1.83. This indicates that the respondents rated the extent of private sector participation in the provision of infrastructural facilities for universities business education undergraduates' acquisition of 21st century skills to be of low extent.

Hypothesis one:

The extent of participation of the private sector in the provision of infrastructural facilities for universities business education undergraduates' acquisition of 21st century skills is not significantly high.

Table 4: Population t-test analysis of the extent of participation of the private sector in the provision of infrastructural facilities for universities business education undergraduates' acquisition of 21st century skills. (N= 122)

Sub-components	Observed Mean X	Assumed Mean μ	S.D.	t-value
Lecture hall/auditorium	18.63	14.50	1.26	2.36*
Resource room/library	16.39	14.50	1.14	2.51*
Model office/demonstration laboratory	19.27	14.50	1.11	2.44*
Fully furnished/ equipped offices	21.42	14.50	1.10	3.12*
Furniture for lecture halls/auditorium	15.28	14.50	1.31	2.58*
Computer laboratory	20.19	14.50	1.12	3.04*

*Significant at .05; df=121; critical t=1.976



The result in table 4 shows that the calculation for the various sub-components of infrastructural facilities were higher than that of the critical value of 1.976 at .05 level of significance and 121 degree of freedom. Specifically, the calculated t-value were as follows: lecture hall/auditorium (t=2.36; p<.05), resource room/library (t=2.51; p<.05) model office/demonstration laboratory (t= 2.44; p<.05), fully furnished/equipped offices (t=3.12; p<.05); furniture for lecture halls/auditorium (t= 2.58; p<.05), computer laboratory (t=3.04; p<.05). With this result, the null hypothesis which states that the extent of participation of the private sector in the provision of infrastructural facilities for universities business education undergraduates' acquisition of 21st century skills is not significantly high was retained. This imply that the extent of private sector participation in the provision of infrastructural facilities for universities business education undergraduates' acquisition of 21st century skills is significantly low.

Research question two:

What is the extent of participation of the private sector in the provision of instructional facilities for universities business education undergraduates' acquisition of 21st century skills?

Table 5: Mean rating and standard deviation on the extent of private sector participation in the provision of instructional facilities for universities business education undergraduates' acquisition of 21st century skills.

S/ N	Item statements	VH E	H E	LE	VL E	X	SD	REMARKS
1	Provision of computers	19	11	33	59	2.21	1.01	Low extent
2	Provision of internet infrastructure	6	2	65	49	1.19	1.00	Very low extent
3	Provision of public address systems	8	8	51	55	1.26	1.17	Very low extent
4	Provision of textbooks/periodicals	12	14	38	58	1.42	1.15	Very low extent
5	Provision of projector	5	3	61	53	1.38	1.36	Very low extent
6	Provision of printers	12	9	52	49	1.48	1.22	Very low extent
7	Provision of scanners	9	5	59	49	1.33	1.07	Very low extent
8	Provision of photocopiers	7	4	44	67	1.45	1.13	Very low extent
9	Provision of paper shredder	8	3	62	49	1.17	1.04	Very low extent
10	Provision of Professional journals & business dictionary	16	11	39	56	1.25	1.08	Very low extent
11	Provision of interactive board	4	2	57	59	1.35	1.07	Very low extent
12	Provision of white board	21	26	37	38	2.26	1.14	Low extent
13	Provision of flannel board	3	2	67	47	1.39	1.09	Very low extent
14	Provision of filing cabinets	12	9	54	47	1.22	1.04	Very low extent
15	Provision of guillotine machine	5	7	45	65	1.34	1.01	Very low extent
16	Provision of software packages	16	11	47	48	1.41	1.09	Very low extent
	Weighted mean					1.44		Very low extent



The data presented in table 5 disclosed that the mean scores of respondents ranged from 1.17 to 2.26, with a weighted mean score of 1.44. This indicates that the respondents rated the extent of private sector participation in the provision of instructional facilities for universities business education undergraduates' acquisition of 21st century skills to be very low extent.

Hypothesis two:

The extent of participation of the private sector in the provision of instructional facilities for universities business education undergraduates' acquisition of 21st century skills is not significantly high.

Table 6: Population t-test analysis of the extent of participation of the private sector in the provision of instructional facilities for universities business education undergraduates' acquisition of 21st century skills. (N= 122)

Sub-components	Observed Mean X	Assumed Mean μ	S.D.	t-value
Provision of computers	15.87	14.50	1.01	2.19*
Provision of internet infrastructure	17.54	14.50	1.00	2.20*
Provision of public address systems	18.06	14.50	1.17	2.17*
Provision of textbooks/periodicals	19.77	14.50	1.15	2.60*
Provision of projector	17.82	14.50	1.36	2.19*
Provision of printers	18.34	14.50	1.22	2.31*
Provision of scanners	16.42	14.50	1.07	2.16*
Provision of photocopiers	19.11	14.50	1.13	2.01*
Provision of paper shredder	18.42	14.50	1.04	2.14*
Provision of professional journals & business dictionary	17.38	14.50	1.08	2.22*
Provision of interactive board	18.99	14.50	1.07	2.18*
Provision of white board	20.04	14.50	1.14	2.14*
Provision of flannel board	16.34	14.50	1.09	2.20*
Provision of filing cabinets	18.49	14.50	1.04	2.33*
Provision of guillotine machine	19.36	14.50	1.01	2.11*
Provision of software packages	19.73	14.50	1.09	2.41*

*Significant at .05; df=121; critical t=1.976

The result in table 6 shows that the calculation for the various sub-components of instructional facilities were higher than that of the critical value of 1.976 at .05 level of significance and 121 degree of freedom. Specifically, the calculated t-value were as follows: provision of computers (t=2.19; p<.05), provision of internet infrastructure (t=2.20; p<.05), provision of public address systems (t= 2.17; p<.05), provision of textbooks/periodicals (t=2.60; p<.05); provision of projectors (t= 2.19; p<.05), provision of printers (t=2.31; p<.05), provision of scanners (t=2.16; p<.05), provision of photocopiers (t=2.01;p<.05), provision of paper shredder (t=2.14; p<.05), provision of professional journals and business dictionary (t=2.22; p<.05), provision of interactive board (t=2.18; p<.05), provision of white board (p=2.14; p<.05), provision of flannel board (p=2.20; p<.05), provision of filing cabinets (t=2.33; p<.05), provision of



guillotine machine ($t=2.11$; $p<.05$), provision of software packages ($t=2.41$; $p<.05$). With this result, the null hypothesis which states that the extent of participation of private sector in the provision of instructional facilities for universities business education undergraduates' acquisition of 21st century skills is not significantly high was retained. This imply that the extent of private sector participation in the provision of instructional facilities for universities business education undergraduates' acquisition of 21st century skills is significantly low.

DISCUSSION OF FINDINGS

Findings regarding hypothesis one revealed that the extent of private sector participation in the provision of infrastructural facilities for universities business education undergraduates' acquisition of 21st century skills is significantly low. This finding is in alignment with Akinkuade and Oredein (2021) who reported that in many institutions, furniture (seats and desks) which are basic classroom requirements are inadequate to the despiteful extent that students sit on windows while others hang in clusters outside the lecture venue during lessons delivery. This finding also agrees with Tayo, Okotoni and Adebakin (2012) who revealed the existence of inadequate infrastructural facilities in both states and federal universities in Nigeria. The causation of this may be due to the fact that the private sector is not embarking on corporate social responsibilities (CSR).

The second finding disclosed that the extent of private sector participation in the provision of instructional facilities for universities business education undergraduates' acquisition of 21st century skills is significantly low. This finding vindicates Innocent (2021) who quipped that in most schools, high students' populations have rendered school facilities and supplies inadequate. The finding of Adeogun (2001) that public schools are inundated with limited available instructional facilities as well as scanty teaching and learning resources support the present finding.

CONCLUSION

Based on the findings in this study, it was concluded that the extent of private sector participation in the provision of both infrastructural and instructional facilities for universities business education undergraduates' acquisition of 21st century skills was significantly low. As it were, if this aghast situation is left unattended to, universities business education undergraduates' may be failure-prone insofar as the acquisition of 21st century skills are concerned, and they may as well be nonexistent in the 21st century employment space.

RECOMMENDATIONS FOR POLICY DIRECTION

The following recommendations were advanced based on the findings of the study:

1. The government as well as the regulatory authorities should as a matter of importance enact policies that will mandate private sector organizations to regularly donate educational facilities to institutions of learning in their operational locations. Such



donations can be carried out as part of their philanthropic corporate social responsibilities which can be set to aggregate a certain percentage of their annual profits.

2. Reports of Philanthropic Corporate Social Responsibilities (CSR) undertaken by private sector organizations should be mandatorily published alongside the entities annual financial statements to show their contributions in terms of CSR to the education sector.

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