Journal of Research in Industrial Technology & Educational Studies

Challenges Facing the Implementation of Business Education CCMAS Curriculum in Public Universities

Volume 1
Number 1
June 2025

Nwatarali, Chinwe Nene, PhD
Department of Business Education
Nnamdi Azikiwe University, Awka
cn.nwatarali@unizik.edu.ng

Onyemaobi, Ngozi
Department of Business Education
Nnamdi Azikiwe University, Awka
on.onyemaobi@unizik.edu.ng

Odogwu, Ikechukwu Chidiebere
Department of Industrial Technology Education
Nnamdi Azikiwe University, Awka
ic.odogwu@unizik.edu.ng

ABSTRACT

The study looked into the problems of implementing Core Curriculum Minimum Academic Standards (CCMAS) in business and entrepreneurship education programs at public institutions. The research was guided by three research questions and three hypotheses. The population of the study comprised 133 participants: 30 business educators and 103 students from three public universities in South-East, Nigeria. The study utilized the complete population as the sample. Data were collected using a validated and reliable structured questionnaire. A four-point response options questionnaire was used for data collection, and it was validated by three experts. The instruments were administered by the researchers and research assistants. Responses to the research question was analyzed using mean responses, standard deviation while the hypotheses were analyzed using t-test of independent sample at 0.05 level of significant. Mean and standard deviation were utilized to answer the three study questions and evaluate the dispersion in respondents' viewpoints, while one way analysis of variance (ANOVA) was employed to test the three null hypotheses at a significance level of 0.05. Findings show that; inadequate instructional facilities, inadequate funding, inadequate supply of technical manpower and qualified staff, technological advancement, and a large class of business education students are the challenges facing the CCMAS implementation in business education and entrepreneurship education programmes at public universities. To ensure effective CCMAS curriculum delivery, the study proposed additional financing, updated facilities, and expanded lecturers' training.

Keywords: Challenges, CCMAS, business education, entrepreneurship education, tertiary institution

Corresponding Author's name and email address: Nwatarali, Chinwe Nene, PhD
and cn.nwatarali@unizik.edu.ng

INTRODUCTION

Business education as an academic course teaches undergraduates entrepreneurial skills and prepares them to be self-sufficient in today's globalized and competitive economy. However, this requirement can only be realized when the business education curriculum is aligned with social needs and realities at the national, regional, and international levels. As part of Technical and Vocational Education and Training business education is a specific curriculum that teaches business courses and equips students with the knowledge, abilities, comprehensions, and attitudes necessary

to advance in office jobs and become employable (Ewemade, & Augustina, 2020). Business education programme is a comprehensive subject that contains an educational curriculum meant to transmit the knowledge, skills, vocational training, and aptitudes required for all citizens to properly run their personal enterprises and participate in the economic system. One of the objectives of business education, according to Olatoye, Ojeyinka, and Ogunleke (2020), is to provide students with the opportunity to get ready for the workforce or pursue vocational training so they can offer effective and efficient services in office, distribution, and service-related fields. Okon (2020) defined business education as a programme of study that gives individuals with learning experiences in specialized knowledge and abilities in designated business fields as well as general education, thereby providing them with competencies for the business world. Thus, Education has been defined as the process of acquiring knowledge, skills, values, and attitudes through various forms of learning such as instruction, study, or practical experience. It is not limited to formal schooling or academic institutions, but can also be acquired through informal means such as life experiences, apprenticeships, or self-directed learning (Johnson & Majewska, 2022). As defined by Hamza and Yusuf (2019), business education is a vocational programme offered in colleges of education and universities to provide students with the necessary skills, attitude, and knowledge to pursue careers in teaching, business, and office occupations. According to the National Universities Commission (2022), Business Education is a specialized profession designed to provide students with knowledge, skills, and competence that will lead to employability and advancement in office occupations, pedagogical skills in teaching business subjects at various levels of the educational system, and self-employment or being an employer of labor.

Entrepreneurship is essential for driving innovation, creating jobs, and advancing a country's economy and society. Over the last few decades, entrepreneurship education in higher education has grown rapidly and globally (Cui et al., 2021). Garavan and O'Cinneide (1994) defined entrepreneurship education as an entrepreneurial activity that prepares students to acquire knowledge relevant to entrepreneurship as well as skills in the use of methodologies, the analysis of business circumstances, and the synthesis of action plans. Today, entrepreneurial education has been developed and urged in developing economies with the goal of transforming students' mindsets from job searching to employment creation (Hartono, 2021). Similarly, even in unclear and very challenging situations, students' chances of success in entrepreneurship are increased when their entrepreneurial mindset dimensions—alertness to opportunities, risk-taking propensity, tolerance for ambiguity, and dispositional optimism—are developed (Cui et al., 2019; Cui, 2021).

The Nigerian higher education curriculum has been criticized for failing to meet the needs of 21st-century learners. The curriculum is judged obsolete and not connected with 21st-century demands, resulting in high underemployment among graduates, which were blamed on the nation's colonial roots and subsequent poor reforms over 64 years following the independence (Toluwalashe et al., 2022). Graduates struggle to find work because the curriculum lacks sufficient practical skills. Graduates of Nigerian higher education institutions lack important 21st-century abilities such as problem solving, critical thinking, communication literacy, cooperation, and creativity, among others. Prioritizing the development of human capital and high-quality education is crucial for a nation's progress. The curriculum urgently has to be redesigned to incorporate contemporary, practical information that prepares students for the real-World (Toluwalashe et al., 2022).

The National Universities Commission (NUC), a regulating agency for undergraduate programmes, sets the Bench Mark Minimum Academic Standard (BMAS), which was reviewed in 2023 as the Core Curriculum Minimum Academic Standard (CCMAS) for undergraduate business education (Onwubuya, Alonta & Amobi, 2025). The CCMAS requires business education undergraduates to be exposed to entrepreneurship and other practical-oriented courses that fulfill the needs of the twenty-first century. Nigeria, like many other developing countries, is grappling with the requirement of constantly improving the quality and relevance of its postsecondary education

system to meet the demands of a fast-changing global context. The efficient administration and management of academic programs, especially in the field of business education, which is essential to socioeconomic growth, is at the heart of this effort. In this respect, the potential implementation of the CCMAS in Nigerian tertiary institutions is a significant consideration. According to Okebukola (2023), CCMAS, which was designed as a standardized framework for academic program administration and quality assurance, provides a systematic approach to curriculum development, delivery, and assessment.

In Nigeria, the management and administration of business education face multifaceted challenges resulting from fragmented curriculum structures, outdated pedagogical approaches, and insufficient resources. These challenges inhibit the effective delivery of excellent education and the country's efforts to create graduates with the knowledge and skills required in today's highly competitive business environment. The potential implementation of CCMAS in Nigerian tertiary institutions holds great promise for addressing these difficulties and sparking beneficial changes in business education management. Institutions can improve curricular coherence, expedite administrative procedures, and guarantee conformity with industry demands and international best practices by adopting a uniform framework. Furthermore, CCMAS promotes the use of innovative pedagogies and technologies to enhance teaching and learning experiences, thereby nurturing the next generation of skilled professionals and entrepreneurs (Okebukola, 2023). However, the successful implementation of CCMAS in Nigerian tertiary institutions requires careful consideration of a variety of contextual elements, such as institutional capacity, infrastructure readiness, faculty development, and stakeholder involvement.

The CCMAS, which replaces the earlier Benchmark Minimum Academic Standards (BMAS), is intended to make Nigerian university education more responsive to the requirements of society. The new curriculum aims to reflect the realities of the twenty-first century, addressing both current and future academic fields within Nigeria's university system. Designing curriculum and implementing CCMAS are two distinct ball games. Though they complement each other, the implementation of the specified curriculum seems to be crucial. The academic staff of educational institutions is responsible for the aforementioned implementation since they are tasked with dividing the curriculum into topics and subtopics, creating lessons that align with the curriculum's goals, delivering the lessons to the students for whom the curriculum was created, and assessing or evaluating the students to determine their level of understanding of the curriculum's contents, among other duties. Academic personnel must use significant physical and mental energy to complete these jobs. To ensure maximum productivity, their efforts must be reciprocated. Unfortunately, the opposite is true, as lecturers/academic staff at public universities in Nigeria are underfunded by the government, which is their primary employer. As a result, academic staff/lecturers in Nigerian universities end up using part of the time meant for curriculum implementation for personal businesses to cope with the current economic hardship.

The relevance and quality of business education programs in Nigerian tertiary institutions have been questioned due to issues such as fragmented curricula, obsolete teaching approaches, and insufficient alignment with global industry demands. The NUC introduced the CCMAS to standardize academic programs and ensure alignment with 21st-century requirements, but questions remain: to what extent does inadequate instructional facility negatively influence CCMAS curriculum implementation of business education programme? What are the challenges facing public universities in Nigeria when implementing CCMAS in their business education programs? And to what extent does technological advancement influence academic staff's implementation of the CCMAS curriculum in entrepreneurship education programs? While CCMAS promises to improve curricular coherence, encourage entrepreneurial abilities, and promote creative teaching techniques, its implementation is hampered by institutional difficulties such as insufficient infrastructure, unprepared faculty, and limited stakeholder participation. There is also a lack of empirical research on the obstacles faced by implementing the CCMAS curriculum in business

education and entrepreneurial education programs in public institutions (Kenneth, Mayah, Obasi & Adejoh, 2024). As a result of these concerns, an in-depth review of the obstacles that the CCMAS curriculum faces in business education is necessary.

The goal of this research was to investigate: (1) the obstacles facing business education programme in implementing CCMAS curriculum; and (2) how the possibilities of overcoming the challenges of business education would help in advancing national development. This study therefore intends to analyze the problems facing business education in the implementation of CCMAS curriculum in business education and entrepreneurship education programs in public institutions.

Statement of the Problem

The business education programme in universities in South-East, Nigeria as a whole, is expected to equip graduates with the necessary skills for the modern workplace. However, the result of ineffective implementation of CCMAS in Business Education Programme had been the reason for the production of half-bake graduates of business education, and setting back the objectives and goals of business education. This situation calls for proper identification of the challenges that inhibit the effective implementation of the programme through an analysis of the shortcomings that have plagued the objectives of the programme since its inception. Hence, relevance and quality of business education programs in Nigerian tertiary institutions, particularly in South East Nigeria, have been under scrutiny due to its challenges such as fragmented curricula, outdated teaching methodologies, and insufficient alignment with global industry demands.

Despite the introduction of the CCMAS by the NUC to standardize academic programs and ensure alignment with 21st-century requirements, questions remain about its practicality and adaptability in local contexts. While CCMAS promises to enhance curriculum coherence, foster entrepreneurial skills, and promote innovative teaching practices, its implementation is hindered by institutional challenges such as inadequate infrastructure, unprepared faculty, and limited stakeholder engagement. There is also a lack of empirical evidence on how well CCMAS aligns with the specific needs of business education programs in South East State's tertiary institutions. These issues therefore, creates the need for an in-depth assesses of the implementation of CCMAS in business education programs. Ultimately, addressing the challenges facing business educator in implementing CCMAS Curriculum in Business Education and Entrepreneurship in public universities at South East Nigeria, will contribute to the overall improvement of teaching and learning outcomes, ensuring that students acquire the necessary digital skills to compete in today's technology-driven economy (Redecker, 2017).The present study therefore seeks to investigate the challenges facing the effective implementation of CCMAS in business education programmes at public university in South East Nigeria.

Objectives of the Study

The objective of the study was to investigate the issues facing business education in implementation of CCMAS in business education programs in public universities. The specific objectives are to:

i. Examine the levels of Inadequate instructional facilities and CCMAS curriculum implementation have influence business education programme in public university.
ii. Investigate the challenges faced by business education in implementing CCMAS in their business education programmes in public university.
iii. Evaluate the levels of technology advancement and academic staff's implementation of CCMAS curriculum have influence entrepreneurship education programme.

Hypotheses

The following null hypotheses were formulated and examined at a significance level of 0.05:

i. $H_{01:}$ There is no significant difference in the mean responses of respondents on the levels of Inadequate instructional facilities and CCMAS curriculum implementation have influence

business education programme in public university.

ii. H_{02}: There is no significant difference in respondents' mean responses to the challenges faced by business education in implementing CCMAS in their business education programmes in public university.

iii. H_{03}: There is no significant difference in the mean responses of respondents on the levels of technology advancement and academic staff's implementation of CCMAS curriculum have influence entrepreneurship education programme.

METHODS

The study used a descriptive survey research design. According to Nworgu (2015), a descriptive survey design involves gathering data from a sample of people in order to describe, explain, or analyze current situations, practices, or trends. Charles-Owaba (2022) defines a descriptive survey as a research technique that involves acquiring and evaluating data from a sample of a larger population. This design is ideal for the study because it enables for data gathering from students and business educators who are directly involved in the implementation of the CMAS in public universities. The study was carried out in Nigeria's Anambra and Enugu states. Specifically, it focused on three public universities offering business education programs: Nnamdi Azikiwe University Awka, Anambra State, University of Nigeria, Nsukka, and Enugu State University of Science and Technology (ESUT), Enugu State. The population for the study comprised of all business education lecturers and students in the three selected tertiary institutions. The total population of the study comprised 30 business educators and 103 students from three public universities in South-East, Nigeria. The Table 1.1 below shows the schools and population.

Table 1

Population of Students and Business Educators

S/N	Names of Schools	Total Number Students	Total Number Lecturers
1	Azikiwe University Awka	34	12
2	University of Nigeria, Nsukka	38	10
3	Enugu State University of Science and Technology	31	8
	Total	103	30

The study's data was collected using three structured questionnaires. The researchers created a systematic questionnaire to collect data. The questionnaire was separated into two section. Section 1 featured the respondents' personal information, whereas section 2 had statement items to be replied by the respondents. The questionnaire in section 2 consisted of 10 items based on a four-point Likert scale: Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1). The instrument addressed the study goals by focusing on the issues that business education faces when implementing the Core Curriculum Minimum Academic Standard (CCMAS) in business education and entrepreneurship programs at public universities. The instrument was verified by three business education and measurement and evaluation professionals from Nnamdi Azikiwe University's Department of Technology and Vocational Education, Faculty of Education in Awka. The instrument's reliability was calculated using a test-and-retest procedure. These high reliability coefficients show that the instrument was reliable for the study, as recommended by Nworgu (2015), who states that a research instrument with a reliability index of 0.70 or above is reliable. Researchers administered the questionnaire to the respondents. The questionnaire was gathered on the same day it was completed. It was important to limit the instrument's losses. The research questions were analyzed using the mean (x) and standard deviation. Any mean rating of an item

equal to or greater than 2.50 was considered agreed whereas any rating less than 2.50 was considered disagreed. The hypotheses were assessed using an independent sample t-test with a significance threshold of 0.05. The questionnaires were distributed to respondents in the three selected institutions by the researchers, who were assisted by two trained research assistants. The administration approach ensured a high response rate because the researcher collected completed surveys immediately after the respondents filled them out. The null hypothesis was tested using one-way analysis of variance (ANOVA) at the 0.05 level of significance. The ANOVA was utilized to test the three null hypotheses because it evaluated one categorical independent variable and three levels of moderating variables. Furthermore, a null hypothesis was accepted if the estimated significant (Sig.) value (p-value) was larger than or equal to (≥) the alpha value (0.05). Otherwise, the null hypothesis is rejected. The data was analyzed using the Statistical Package for Social Sciences (SPSS) version 25.

RESEARCH RESULTS

The results of the data analysis are presented according to the research questions and hypotheses.

Research Question One: To what extent does inadequate instructional facility negatively influence CCMAS curriculum implementation of business education programme?

Table 2

Mean and SD of respondents on extent does inadequate instructional facility affect CCMAS curriculum implementation of business education programme

S/N	Statements	Mean	SD	Remark
1	There is inadequate provision of ICT instructional facilities in my school.	3.51	0.96	Agree
2	Inadequate instructional materials	3.52	0.76	Agree
3	E-learning facilities in my school are not adequately provided in proportion with the students' population	3.42	0.80	Agree
4	My school is not adequately provided with computer laboratory facilities	3.53	0.73	Agree
5	Inadequate supply of modern equipment for business education programme.	3.49	0.70	Agree
6	There is no film strip in my school.	3.47	0.68	Agree
7	Lack of motion picture instructional facilities affect business education programme CCMAS implementation in my school	3.45	0.64	Agree
8	There is absence of internet facilities in my school.	3.53	0.66	Agree
9	Lack of personnel support to enhance the development of CCMAS curriculum	3.65	0.69	Agree
10	Utilization of outdated curriculum.	3.22	0.73	Agree
	Grand Mean and SD	**3.48**	**0.82**	

Note. SD = Standard Deviation.

The results in Table 2 show that the average responses to all items ranged from 3.42 to 3.65, with a grand mean of 3.48 and a standard deviation of 0.82. The mean values show that respondents agree with the 10 items characterizing the impact of poor instructional facilities on curriculum implementation in a business school program. The standard deviations for the ten items listed ranged from 0.64 to 0.96, showing that respondents agreed that inadequate teaching facilities impede the CCMAS implementation of a business education curriculum. The grand mean of 3.48 suggests that respondents believe that inadequate teaching facilities hinder the CCMAS implementation of the business education program. Furthermore, the grand mean score (3.48) indicates that respondents strongly agreed that insufficient teaching facilities limit CCMAS's successful implementation of business education programs.

Research Question Two: What are the challenges facing public universities in Nigeria when implementing CCMAS in their business education programs?

Table 3

Mean and SD of respondents on challenges public universities in Nigeria face in implementing CCMAS in their business education program

S/N	STATEMENT	MEAN	SD	Remarks
1	Lack of adequate funding for implementing CCMAS	3.26	0.67	Agree
2	Insufficient infrastructure to support CCMAS implementation	3.27	0.70	Agree
3	Limited availability of trained lecturers for practical courses	3.31	0.72	Agree
4	Lack of access to modern teaching tools and technologies.	3.65	0.87	Agree
5	Inadequate supply of modern facilities and equipment.	3.22	0.73	Agree
6	Inconsistent policy implementation by management.	3.16	0.65	Agree
7	Inadequate orientation on CCMAS for lecturers and students.	3.51	0.76	Agree
8	Successive government and other major stakeholders have been handling business education with levity.	3.82	0.90	Agree
9	Unstructured CCMAS curriculum in business education	2.76	0.49	Disagree
10	Insufficient time allocation for practical-oriented courses.	2.87	0.50	Disagree
	Grand Mean and SD	**3.28**	**0.77**	

Note:SD = Standard Deviation

Table 3 revealed that average responses varied from 2.76 to 3.82, with a grand mean of 3.28 and a standard deviation of 0.77. The findings demonstrate that respondents generally agreed that difficulties such as insufficient funding, infrastructure, and educational resources restrict the use of CCMAS in business school programs. This shows that respondents agree that there are challenges to implementing the CCMAS curriculum in business education. However, questions regarding unstructured CCMAS curriculum in business education (mean = 2.76) and insufficient time allocation (mean = 2.87) received lower ratings, indicating that respondents disagreed on these issues.

Research Question Three: And to what extent does technological advancement influence academic staff's implementation of the CCMAS curriculum in entrepreneurship education programs?

Table 4

Mean and SD of respondents on technological advancement influence academic staff's implementation of the CCMAS curriculum in entrepreneurship education programs

S/N	STATEMENT	MEAN	SD	Remarks
1	Information technology advancement made learning to be more meaningful.	3.21	0.68	Agree
2	Current information technology advancement is highly supportive in the CCMAS teaching and learning of entrepreneurship education	3.55	0.80	Agree
3	Global business concept has, not be fully integrated into entrepreneurship education curriculum	3.33	0.70	Agree
4	Due to increasing interaction from more accessible global telecommunication networks, the nature of teaching and learning entrepreneurship education	3.43	0.72	Agree

	subjects has change			
5	Lack of information and communication technology (ICT) skills by business education lecturers have effects on the implementation of CCMAS curriculum in entrepreneurship education programme.	3.50	0.79	Agree
6	Lack of related modern instructional materials for teaching global market concept affects the implementation of CCMAS curriculum in entrepreneurship education programme	3.61	0.85	Agree
7	Technology advanced CCMAS curriculum emphasizes entrepreneurial skills development in business education.	3.82	0.87	Agree
8	Technology advanced CCMAS equips students with 21st-century business and entrepreneurial skills	3.48	0.77	Agree
9	Technology advanced CCMAS aligns with industry requirements for business education graduates.	3.57	0.84	Agree
10	Technology advanced CCMAS promotes innovative and creative thinking in business education	3.51	0.81	
	Grand Mean and SD	**3.50**	**0.78**	

Table 4 shows the mean distribution of responses to Research Question three. The mean ranges from 3.21 to 3.82, with standard deviations of 0.68 to 0.87. The mean values show that respondents agree with the ten items of the impact of technological advancement on CCMAS curriculum implementation in an entrepreneurial education program. The high values of the standard deviations indicate a high level of agreement among respondents. The grand mean of 3.50 indicates that respondents believe that technological advancement has a positive effect on academic staff's implementation of the CCMAS curriculum in entrepreneurship education.

Hypotheses Testing

H_{o1}: There is no significant difference in the mean responses of respondents on effect of Inadequate instructional facilities on CCMAS curriculum implementation of business education programme in public university.

Data collected to address hypothesis are as summarized in table 5.

Table 5

Summary of ANOVA on respondents' mean ratings on effect of Inadequate instructional facilities for CCMAS curriculum implementation in business education

Sources of Variance	Sum of Squares	df.	Mean Square	F-cal.	p-val.	Sig.	Decision
Between Groups	17.933	9	.740	-1.332	0.065	.242	SIG
Within Groups	46.959	82	.694				
Total	64.892	91					

Note: df = Degree of Freedom, Sig. = Significant

Table 5 shows a calculated f-value of -1.332 with a significant (sig.) p-value of 0.065. This value is less than the alpha value of 0.05 (0.065 < 0.05) at degrees 9 and 92. As a result, the null hypothesis that there is no significant difference in the mean rating on the effect of inadequate instructional facilities on CCMAS curriculum implementation of the Business Education Program was accepted. This could be because both business educators' lecturers and students at federal and state universities recognize the

issues that CCMAS curriculum implementation of the Business Education Program presents.

H_{02}: There is no significant difference in respondents' mean responses to the challenges that business education faces when incorporating CCMAS in their Business Education curriculum.

Data collected to address hypothesis are as summarized in table 5.

Table 6

Summary of ANOVA on respondents' mean ratings on challenges facing CCMAS curriculum implementation in business education

Sources of Variance	Sum of Squares	Df.	Mean Square	F-cal.	p-val.	Sig.	Decision
Between Groups	10.24	9	5.12	2.28	.042	.183	SIG
Within Groups	112.56	82	1.56				
Total		**91**					

Table 6 reveals that the computed p-value (.042) is less than the 0.05 significance level. Thus, the null hypothesis is rejected. This suggests that there is a considerable variation in the average responses of respondents to the problems that tertiary institutions experience while incorporating CCMAS in their business education programs**.**

H_{03}: There is no significant difference in the mean responses of respondents on how advances in technology influences academic staff's application of the CCMAS curriculum in the entrepreneurship education program.

Data collected to address hypothesis are as summarized in table 6.

Table 7

Summary of ANOVA on respondents' mean ratings on how advances in technology influences academic staff's application of the CCMAS curriculum implementation in business education

Sources of Variance	Sum of Squares	Df.	Mean Square	F-cal.	p-val.	Sig.	Decision
Between Groups	2.458	9	1.229	1.388	0.37	.373	SIG
Within Groups	53.357	82	.777				
Total	**58.615**	**91**					

Table 7 shows a calculated F-value of 1.388 with a significant (sig.) p-value of 0.37, which exceeds the alpha value of 0.05 (0.37 > 0.05) at degrees of freedom 9 and 82. Thus, the null hypothesis (H01) was accepted. This suggests that there is no significant variation in respondents' mean ratings of how technological advancement affects academic staff's use of the CCMAS curriculum in the entrepreneurship education program. This suggests that there is no significant difference in the mean responses of respondents about how technological advancement effects academic staff's use of the CCMAS curriculum in the entrepreneurship education program.

DISCUSSION

The study sought to examine the challenges associated with the implementation of the CCMAS curriculum in business education and entrepreneurship education programs at three public institutions in Southeast Nigeria. The data analysis highlighted numerous problems in the execution of business and entrepreneurship education programs.

Table 1 shows that respondents agreed that inadequate instructional facilities are one of the obstacles facing the CCMAS (Core Curriculum and Minimum Academic Standards) implementation of business education programs, with a grand mean of 3.48 and a standard deviation of 0.82. Items such as "Lack of personnel support to enhance the development of CCMAS curriculum" (mean = 3.65) and "Inadequate supply of modern equipment for business education program" (mean = 3.49) were agreed**.** This shows that the availability and suitability of instructional facilities and equipment play a significant

role in the smooth operation of an educational system. When they are in short supply, CCMAS implementation will be hampered. The ANOVA analysis in Table 4 revealed a significant difference in the mean replies of respondents to the influence of inadequate instructional facilities on the CCMAS curriculum implementation of a business education program in a public institution**.** The calculated F-value (1.332) with a significant (sig) p-value is less than the alpha value of 0.05, therefore rejecting the null hypothesis. These findings are in line with those of Kenneth, Mayah, and Adejoh (2024), who discovered that inadequate instructional facilities have a substantial impact on the CCMAS curriculum implementation of business education programs at public universities. Patience (2023) also stated that some of the obstacles facing the business education program include a lack of contemporary technology, insufficient instructional materials, and a negative public view of the institution.

The results in Table 2 showed that respondents agreed that 3 public university face significant challenges in implementing CCMAS in their business education programs, with a grand mean of 3.28 and a standard deviation of 0.77. High mean scores were observed for challenges such as "Successive government and other major stakeholders have been handling business education with levity" (mean = 3.82) and "Lack of access to modern teaching tools and technologies" (mean = 3.65). However, lower mean scores for "Inconsistent policy implementation by management" (mean = 3.16) and "Inadequate supply of modern facilities and equipment" (mean = 3.22) suggest these were less pressing concerns for respondents. The findings are consistent with Olowe and Adeniyi's (2022) identification of limited money, poor facilities, and a shortage of competent personnel as major barriers to effective curriculum implementation at postsecondary institutions. Similarly, Nwogu and Chukwu (2021) found that inconsistent policy implementation exacerbates these issues.

Table 4 also revealed an insignificant difference in respondents' mean responses to how technological advancement influences academic staff's implementation of the CCMAS curriculum in entrepreneurship education programs, with a calculated F-value of 1.388 and a significant (sig.) p-value of 0.37, which is greater than the alpha value of 0.05 (0.37 > 0.05) at degrees of freedom of 9 and 82. Therefore, the null hypothesis (H_{01}) was accepted. This suggests that there is no significant change in respondents' mean ratings of how technological innovation effects academic staff's use of the CCMAS curriculum in the entrepreneurship education program. This conclusion contradicts Kenneth, Mayah, and Adejoh (2024), who claimed that technology advancement is one of the difficulties to CCMAS curriculum implementation in public colleges.

Conclusion

Based on the findings of the study's discussions, it was concluded that if the challenges such as inadequate funding, inadequate instructional facilities, inadequate supply of modern facilities and equipment, inadequate supply of modern equipment for business education program, insufficient infrastructure to support CCMAS implementation, limited availability of trained lecturers for practical courses, among others, public universities faced implementing the CCMAS curriculum. The study also found that CCMAS is extremely relevant to the demands of business education programs in tertiary institutions since it connects with global trends, encourages employability, and incorporates entrepreneurial skills into the curriculum. However, fundamental constraints such as inadequate finance, a lack of infrastructure, and the restricted availability of trained personnel impede efficient implementation.

Recommendations

Based on the findings, the following recommendations were made:

1. Federal and state governments should endeavor to increase funding specifically earmarked for upgrading teaching and learning infrastructure in public universities. That is, the government and institutional management should allocate adequate funds to support the implementation of CCMAS, ensuring that necessary resources such as modern teaching tools and technologies are available.

2. Regular training and orientation programs should be organized for lecturers to enhance their capacity to deliver practical-oriented and innovative courses aligned with CCMAS. Also, set up CCMAS implementation committees in universities, comprising academic leaders, ICT experts, and curriculum developers to regularly report on progress and challenges.
3. The Ministry of Education should endeavor to revise national higher education policies to prioritize funding, capacity development, and infrastructure for business education in line with CCMAS standards. Tertiary institutions should also prioritize the development of infrastructure, including well-equipped laboratories, classrooms, and ICT facilities, to support CCMAS implementation.

REFERENCES

Charles–Owaba, T. (2022). Effects of teaching geometry using mobile app instructional technique on students' interest in Bayelsa State. *Journal of Mathematical Sciences & Computational Mathematics*, 3(4), 574-590. https://doi.org//10.15864/jmscm.340.

Cui, J., Sun, J., & Bell, R. (2019). The International Journal of E Mediating Role of Inspiration and The Role of Educational Attributes the Impact of Entrepreneurship Education on The Entrepreneurial Mindset of College Students in China: *The International Journal of Management Education*. https://doi.Org/10.1016/J.Ijme.2019.04.001

Cui, J. (2021). The Impact of Entrepreneurship Curriculum with Teaching Models on Sustainable Development of Entrepreneurial Mindset among Higher Education Students In China: The Moderating Role of The Entrepreneurial Climate at The Institution. *Sustainability*, 13(14), 7950. https://doi.org/10.3390/Su13147950

Ewemade I., & Augustina N. C., (2020) Influence of Modern Technology on the Teaching and Learning of Business Education Courses in Universities in Edo and Delta States. *KIU Journal of Humanities, 5*(2): 397–403.

Hamza M. T. & Yusuf G. B. (2019). Parental influence on student's specialization in business education in federal colleges of education, North-West GeoPolitical Zone, Nigeria. *Delta Business Education Journal (DBE), 9*(I), 170 – 175.

Hartono, H. (2021), Changing University Students' Mindset: From Job Seekers to Job Creators. *Technium Social Sciences Journal*, 18, 433–443. Https://Doi.Org/10.47577/Tssj.V18i1.3026.

Johnson, M. and Majewska, D. (2022). Formal, non-formal, and informal learning: What are they, and how can we research them? Cambridge University Press & Assessment Research Report. https://www.cambridgeassessment.org.uk/Images/665425-formal-non-formal-and-informallearning-what-are-they-and-how-can-we-research-them-.pdf

Kenneth, C. E., Mayah, E., Obasi, H. O., & Adejoh, A. C. (2024) Challenges Facing Curriculum Implementation of Business Education Programme in Colleges Of Education, Delta State. African *Journal of Educational Management, Teaching and Entrepreneurship Studies,* 11(1), https://ajemates.org.

National University Commissions (2022). *Core Curriculum and Minimum Academic Standards (CCMAS)*. Abuja: Nigerian Educational Research and Development Council (NERDC).

NUC. (2022). *Core Curriculum and Minimum Academic Standards (CCMAS)*: Education. Abuja.

Nwogu, A. A., & Chukwu, J. E. (2021). Policy inconsistencies and the challenges of curriculum implementation in tertiary institutions. *Journal of Contemporary Educational Studies*, 15(1), 58–72.

Nworgu, B. G. (2015). *Educational research: Basic issues & methodology*. Enugu: University Trust Publishers.

Olatoye, A.O., Ojeyinka, A. G. & Ogunleke, M. O. (2020). Business education in Nigeria: Challenges and way forward for national development. *Journal of the Business of Education (JTBE)*, 3(5), 75-80.

Okebukola, P. (2023). *Introduction to the Core Curriculum Minimum Academic Standards (CCMAS): Framework and implementation strategies*. Lagos: University Press.

Okon, E. E. (2020). Business education in a global economy: Bridging the gap between education and practice. *Journal of Business and Vocational Education*, 12(3), 45–58.

Olowe, A. O., & Adeniyi, T. O. (2022). Challenges of implementing CCMAS in Nigerian tertiary institutions: A case study of business education programs. *Journal of Curriculum Implementation*, 5(2), 89–102.

Onwubuya, U. N., Alonta, G. C. & Amobi, C. M. (2025). Integration of Machine Learning as Correlate of Core Curriculum and Minimum Academic Standards (CCMAS) Implementation for Business Education in South-East, Nigeria. *Current Science Research Bulletin,2*(2),66-71. http://doi:10.55677/csrb/05-V02I02Y2025

Toluwalashe, S., Adeyinka, E., Tufayl, A., & Alabi, H. K. (2022, September 24). *Playing the catchup game: Relevance of the Nigerian higher education system in the wake of the 21st century [LinkedIn]*. Insight from the Community. https://www.linkedin.com/pulse/playing-catch-up-game-relevance-nigerian-highereducation-soyemi

Cite as: Nwatalari, C. N., Onyemaobi, N., & Odogwu, I. C. (2025). Challenges facing the implementation of business education ccmas curriculum in public universities. *Journal of Research in Industrial Technology and Educational Studies*, *1*(1), 93-104.