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OFFICE TECHNOLOGY AND MANAGEMENT (OTM) CURRICULUM DEVELOPMENT AND REVIEW IN NIGERIA: OPPORTUNITIES, CHALLENGES AND TRENDS IN TERTIARY INSTITUTIONS IN RIVERS STATE

[1*]Ukata, Philip Festus, PhD & [2]Nmehielle, Edith Luke, PhD
[1&2]Department of Office Technology and Management, School of Business and Administrative Studies, Port Harcourt Polytechnic, Rumuola, Port - Harcourt.
Email: [1]ukata4mephilip@yahoo.com or phillip.ukata@portharcourtpoly.edu.ng
[1]ORCID: https://orcid.org/0000-0001-5019-450X

Abstract

Curriculum development and review have become global issues because of their vital roles in shaping nations` employment opportunities. Therefore, this study explored the opportunities, challenges, and emerging trends in the development and review of the Office Technology and Management (OTM) curriculum in tertiary institutions in Rivers State. Five research questions guided the study and a descriptive survey research design adopted. From a population of 69 OTM lecturers, a census survey sampling was employed. A five-point response options questionnaire was used for data collection. It was validated by three experts with reliability values of .89, .88, .87, .81 and .82. Mean and standard deviation were used to answer the five research questions and measure the spread in respondents` opinions. Findings revealed how highly rich OTM curriculum was developed but lowly reviewed, high level of opportunities available in OTM curriculum, high level of challenges confronting its implementation and highly trending issues that need attention during implementation. The study concluded that if the issues confronting OTM curriculum are adequately addressed, learners will acquire the needed employability skills. Among other things, it was recommended that Federal, state and local governments should improve on OTM curriculum review and implementation to include topic like artificial intelligence for reskilling and upskilling.

Keywords: *Curriculum development, OTM curriculum review, opportunities, challenges and trends.*

Introduction

Most nations` strategies to overcome economic challenges and achieve success depend mostly on the regular holistic educational curriculum content development, implementation and regular review. Therefore, the case of Nigeria cannot be exceptional (Ukata, 2019). Curriculum is the totality of all the experiences, skills, competencies and attitudes learners are expected to learn and acquire under the guidance of lecturers (Ukata, et al., 2017). Curriculum is the ground which students and lecturers cover in order to reach the goals and objectives of education. This means that for learners to acquire appropriate skills and competencies, the curriculum must be implemented effectively (Ukata & Nmehiecle, 2024).

Curriculum development is a planned, thoughtful and deliberate course of actions, development and organisation of learning activities designed to meet intended learning outcomes. It also involves the thoughtful assessment of those learning outcomes (Camosun Collage, 2023). Curriculum development moves beyond a contents-centred approach to one that considers the relationship between the course/programme of learning outcomes, assessment of those outcomes, and the activities and opportunities designed to facilitate students` learning. In designing a course or programme, developers need to consider: Outcomes: What should the learner know and be able to do at the end of this

course/programme? Assessment: How will learners and teachers know if the learning outcomes have been accomplished? Activities: What needs to be done to achieve the learning outcomes? (Camosun Collage, 2023). The curriculum development process may start from analysis and research to design, to development, to implementation and finally evaluation and lunching (Ukata, 2023).

Curriculum review is systematic approach to evaluating, reviewing and revising curricular areas and programmes within a specific timeframe which aims to identify gaps and weaknesses with a view to increasing curriculum effectiveness and continually improving students` learning experiences. Normally it involves several phases including: research and selection; revision and development; implementation; evaluation and monitoring (Ukata, 2023; International Bureau of Education, 2023). Curriculum implementation is a network of various activities that are involved in translating curriculum contents design into classroom activities and changing the learners' attitudes to accept and participate in such activities (Ezenwafor & Ukata, 2022a).

Office Technology and Management (OTM) is an academic programme offered in Nigerian polytechnics (National Board for Technical Education (NBTE) (NBTE, 2009; Ukata & Okpokwasili, 2024a; Fadare, 2014), and as an option in the Business Education programme in some universities and colleges of education (Dauda, 2020). In Rivers State University (RSU), the option is called Office Management and Technology (OMT), (Business Education Departmental Handbook, 2020), while in Ignatius Ajuru University of Education (IAUE), it is known as Office Information Management (OIM) (Business Education Departmental Handbook, 2022). The two universities are regulated by National Universities Commission (NUC). In Federal College of Education (Technical) Omoku, it is called Office Technology and Management Education (OTME) with National Commission for Colleges of Education (NCCE) as the regulator (NCCE, 2012). The contents scope of the handbooks from the two universities and minimum standards for National Certificate of Education (NCE) from NCCE mentioned shared great similarities despite each institution`s preferred nomenclature to the programme. Therefore, lecturers from these institutions were used as part of the respondents for this study. However, the curriculum contents scope of the OTM programme is adopted for this study as a coverage for all the tertiary institutions. This is because, OTM as an acronym used in this research is known to the polytechnic environment and the programme contents originated from the polytechnic academic environment as such most universities with their respective nomenclatures borrowed their courses contents from OTM which is the justification for adopting OTM curriculum contents for all the tertiary institutions (Ukata, 2019). Expectedly, implementing the ICT-driven and other employability skills Office Technology and Management curriculum threw up various new issues (Oludele & Dosunmu, 2013; Nnaji & Hauwa, 2019; Ukata, 2019; Ukata & Okpokwasili, 2024b).

The OTM curriculum as designed and incorporated six components namely; Office Application Software, Office Technology, Business and Administrative Management, Numeric Component, General Studies and Students Industrial Work Experience Scheme (SIWES) (Oludele & Dosunmu, 2013). The OTM curriculum has been implemented in Nigerian tertiary institutions for close to two decades yet there are reports from employers in Nigeria generally and Rivers State in particular that the OTM graduates do not seem to demonstrate adequate employability skills and competencies for effective performance in the 21st Century workplace (Oludele & Dosunmu, 2013; Ukata, 2019).

The National Board for Technical Education introduced the old secretarial studies curriculum for National Diploma and High National Diploma levels in 1989, (Agbongiasede, 2014). The old curriculum was entirely dominated by shorthand (5 units) and typewriting (4 units) courses with the inclusion of some management courses which seem not to help matters. The old curriculum became obsolete and begged for holistic review. It took NBTE about 15 years to introduce another curriculum content with a new name Office Technology and Management in 2004 while the implementation started in 2006 which was about 17 years (Ukata, 2019; Azih & Ejeka, 2015). The OTM curriculum

against the old one consists of courses like ICTs, general studies/education, foundation courses, entrepreneurship education, supervision of industrial work experience (SIWES). From 2006 to 2023 is about 17 years no major national review has taken place, this is a too long time to wait. A constant review is needed to meet the societal and global trend, moreover technological programme. Global institutions and experts in technologies have subscribed to the ideas of reviewing technological curriculum every five years nationally with regular yearly internal review by implementers. Teachers need to be abreast with industries needs and regularly incorporate them into the curriculum as part of the internal process (Researchgate, 2013; Enyekit & Ukata, 2023). Agbongiasede (2014) noted that there was remarkable improvement in the OTM curriculum better than the old one. According to the NBTE curriculum and courses specification 2006 for OTM, the courses for NDI first semester are as stated below (NBTE, 2006; Olukemi & Boluwaji, 2014):

Table 1

National Diploma Semester Courses in the Polytechnics

First Semester ND1		
Course Code	**Course Title**	**Course Unit**
GNS 101	Use of English	4
GNS 111	Citizenship Education	2
BAM 111	Introduction to Business I	3
OTM 111	Shorthand	4
OTM 113	ICT I	8
OTM 114	Office Practice I	4
OTM 112	Keyboarding	4
FRN 101	French I	2
BAM 112	Business Mathematics	3
Second Semester NDI		
Course Code	**Course Title**	**Course Unit**
GNS 102	Communication in English	4
OTM 123	ICT II	8
GNS 121	Citizenship Education II	2
BAM 126	Introduction to Entrepreneurship	3
BAM 113	Principles of Law	2
BAM 125	Career Development	4
OTM 121	Shorthand II	4
OTM 124	Modern Office Technology	4
OTM 122	Keyboarding II	4
NDII First Semester		
Course Code	**Course Title**	**Unit**
GNS 201	Use of English II	4
GNS 228	Research technique	2
OTM 211	Shorthand III	4
OTM 214	Office Practice	4
OTM 213	Desktop Publishing	6

ACC 111	Principles of Accounting	4
OTM 212	Keyboarding	2

ND II Second Semester

Course Code	**Course Title**	**Unit**
GNS 202	Communication in English	4
OTM 222	Records Management	2
BAM 114	Principles of Economics I	3
OTM 223	Web page Design	8
OTM 221	Principles of Communication Skills	4
OTM 226	SIWES	2
OTM 225	Project	4

At the HND level, there are courses like ICT Office Application I, Social Psychology, Professional Career Development, ICT Office Application II, Nigeria Labour Law, Human Capital Development, Database Management System, Oral Communication Skills, Element of Human Resource Management, Advanced Desktop Publishing, Management Information System, Professional Ethics and Social Responsibility, Entrepreneurship and Advanced Webpage Design, (Agbongiasede, 2014). The deliberate inclusion of ICTs components, entrepreneurship, human resource management, social psychology, Nigeria Labour Law etc., are booster to equip OTM graduates as employees and employers in private and public sectors as well as to overcome the volatile economic challenges of Nigeria.

The objectives of OTM curriculum, according to National Board for Technical Education (NBTE, 2009), is that the graduates are expected to adequately develop skills to effectively and efficiently use different computer hardware and software resources. It is also to equip students with the knowledge, competencies and specific skills that will enable them to successfully hold positions as secretaries, managers, administrative assistants in both private and public sectors of Nigeria economy. It will further expose the students to the industrial work experience that will afford them an opportunity to practically carryout their skills, develop in them an occupation and intelligence that will make them versatile and adaptable to the change situation in the business world and develop their potential for further academic and professional pursuits. The current OTM curriculum design incorporates six components namely; Office Application, Office Technology, Business and Administrative Management, Numeric Component, General Studies and Students Industrial Work Experience Scheme (SIWES) (Umukoro, 2014). Looking at the above objectives and role to play in the challenging economy, there is need for holistic implementation of the course contents. An ailing economy as this Nigeria needs a regular development and strict implementation of the course contents of OTM.

There are great opportunities for OTM learners and graduates. The courses mentioned have the capacity to solve some major Nigeria economic challenges like unemployment, corruption, gender inequality, child labour, cultism, youth unrest etc., (Ukata & Amini, 2022). There are also opportunities in digital skills acquisition, employability skills, employment creation, reduction in poverty, wealth creation and reduction in insecurity (Azih & Ama, 2019; Ukata, 2019; Ukata et al, 2017). A critical examination and scholarly interpretation of the Programmes make it succinct that 70% of Nigeria`s economic challenges would have been drastically reduced. The oil economic doom can be diversifying into some entrepreneurship practical skills opportunities like; ICTs, clinic practice, drinks analysis, snacks technology, beverages, health products, industrial chemistry, electrometer, welding, Architecture, agro practice, horticulture, fine art, creative art, off-set print, music etc., (Ezenwafor & Ukata, 2022b: Ukata & Silas-Dikibo, 2022). Although there seem to be numerous challenges in the

areas of irregular review of OTM curriculum, low level of implementation, inadequate funding, dearth of trained teachers, inadequate modern office equipment, inappropriate/inadequate instructional strategies, and inadequate technical manpower (Ukata & Silas – Dikibo, 2019; Ukata & Kalagbor, 2017). The trends in global curriculum activities appear to bother on adequate and regular development, very high level of regular curriculum review, high level of implementation, adequate funding, employment of qualified teachers, availability and utilization of modern office equipment, application of appropriate/adequate instructional strategies, and adequate technical manpower. Others are adequate and regular remuneration, regular training and retraining, adequate and regular power supply, heading departments with specialists in the area, availability and utilization of laboratories, design of democratic classroom, and societal recognitions such as awards (Ukata & Silas – Dikibo, 2019; Ukata & Kalagbor, 2017; Ukata, et al, 2017).

Statement of the problem

To overcome the challenges and achieve success, most nations` strategies seem to depend on the holistic educational curriculum contents based on adequate development, adequate implementation and regular review, so the case of Nigeria cannot be exceptional (Ukata, 2019). The National Board for Technical Education introduced the old secretarial studies curriculum for National Diploma and High National Diploma levels in 1989, (Agbongiasede, 2014). The old curriculum was entirely dominated by shorthand (5 units) and typewriting (4 units) courses with the inclusion of some management courses which seem not to help matters in meeting the global workplace demand. The old curriculum became obsolete and begged for holistic review. It took NBTE about 15 years to introduce another curriculum content with a new name Office Technology and Management in 2004 while the implementation started in 2006 which was about 17 years (Ukata, 2019). From 2006 when the implementation started till date is about 17 years and no major national review has taken place, this is a too long time to wait. A constant review and adequate implementation appear to be the way out to meet the Nigeria un-employment problem. Global institutions and experts in technologies have subscribed to the ideas of reviewing technological curriculum every five years nationally with regular yearly internal review by implementers. Teachers need to be abreast with industries needs and regularly incorporate them into the curriculum as part of the internal process (Researchgate, 2013). Agbongiasede (2014) noted that there was remarkable improvement in the OTM curriculum better than the old one. Although there appears to be several governmental, institutional, societal, students, lecturers and other related factors that are contributing to the ugly situation of inadequate curriculum development and irregular review. The researchers are worried that the level of OTM curriculum development is not known and the contents is always kept for too long before review which is below global standard despite the opportunities available in regular curriculum review. Therefore, the problem of this study is that, the level at which OTM curriculum is developed, reviewed, the opportunities, challenges and trends in tertiary institutions in Rivers state are not clearly known.

The knowledge is essential to suitably address the skills gap between employers and graduates of the OTM programme which requires an empirical investigation. This study is on the determination of the level of Office technology and management curriculum development and review in Nigeria: opportunities, challenges and trends in tertiary institutions in Rivers State.

Research Questions

1. How rich is the developed contents of OTM curriculum used in tertiary institutions in Rivers state?
2. What is the level of OTM curriculum review in tertiary institutions in Rivers state?
3. What is the level of opportunities available in OTM curriculum in tertiary institutions in Rivers state?

4. What is the level of challenges confronting the implementation of OTM curriculum in tertiary institutions in Rivers state?
5. What are the trending issues that need attention during implementation of OTM curriculum in tertiary institutions in Rivers state?

Methods

The study adopted the descriptive survey research design. The population of the study was all 69 OTM lecturers from the five public tertiary institutions (two universities, two polytechnics and one college of education) in Rivers State that offer OTM programme. Census survey was adopted to sample all the 69 OTM lecturers because it is of manageable size. The instrument used for data collection was a self-designed five-point response options questionnaire titled: "Level of curriculum development and review: opportunities, challenges and trends". The questionnaire was subjected to face and contents validation by three experts from the Faculty of Education in Nnamdi Azikiwe University, Awka. The measure of internal consistency method was used to establish the reliability of the instrument. The instrument was administered to 20 lecturers from the University of Uyo who were not part of the population of the study. The Cronbach's alpha was applied to compute the reliability coefficient which yielded alpha value of .89, .88, 87, 81 and .82. This high reliability coefficient value shows that then instrument was reliable for the study as recommended by Nworgu (2015) that a research instrument with a reliability index of 0.70 and above is reliable. The researcher(s) personally administered the copies of the questionnaire to the respondents in their schools with the help of four research assistants who were adequately briefed on the modalities to follow. The researcher(s) first visited each of the tertiary institutions and sought consent from the relevant Heads of Department for the study. Thereafter, the researcher(s) and assistants visited each school and handed over the required number of copies of the instrument to the Heads of the Department to distribute to the OTM lecturers for completion and, revisited after five working days to retrieve the completed copies. Sixty-six copies of the instrument representing 96% were correctly filled, retrieved and used for data analysis. The arithmetic mean and standard deviation were used to answer the five research questions and ascertain how homogeneous or heterogeneous the respondents' opinions were relative to the questionnaire items and the aggregated mean. The data analysis was carried out using Statistical Package for Social Sciences (SPSS) version 25.

The decisions on the five research questions were based on cluster mean relative to the real limits of numbers on a five-point scale as shown in the below four Tables:

Table 1 for Research Question 1:

Response	Ratings	Real Limit of Numbers
Very Highly Developed	VHD (5 points)	4.50 – 500
Highly Developed	HD (4 points)	3.50 – 4.49
Moderately Developed	MD (3 points)	2.50 – 3.49
Lowly Developed	LD (2 points)	1.50 – 2.49
Very Lowly Developed	VLD (1 point)	1.00 – 1.49

Table 2 for Research Question 2:

Response	Ratings	Real Limit of Numbers
Very Highly Reviewed	VHR (5 points)	4.50 – 500
Highly Reviewed	HR (4 points)	3.50 – 4.49
Moderately Reviewed	MR (3 points)	2.50 – 3.49

Lowly Reviewed	LR (2 points)	1.50 – 2.49
Very Lowly Reviewed	VLR (1 point)	1.00 – 1.49

Table 3 for Research Questions 3 and 4:

Response	Ratings	Real Limit of Numbers
Very high level	VHL (5 points)	4.50 – 500
High level	HL (4 points)	3.50 – 4.49
Moderate level	ML (3 points)	2.50 – 3.49
Low level	LL (2 points)	1.50 – 2.49
Very low level	VLL (1 point)	1.00 – 1.49

Table 4 for Research Question 5:

Response	Ratings	Real Limit of Numbers
Very highly trending issues	VHTI (5 points)	4.50 – 500
Highly trending issues	HTI (4 points)	3.50 – 4.49
Moderately trending issues	MTI (3 points)	2.50 – 3.49
Lowly trending issues	LTI (2 points)	1.50 – 2.49
Very lowly trending issues	VLTI (1 point)	1.00 – 1.49

Result Presentation, Analysis and Discussion

Research Question 1

How rich is the developed contents of OTM curriculum used in tertiary institutions in Rivers state?

Table 2: Respondents' mean ratings on how rich is the developed contents of OTM curriculum

SN	How rich is the developed contents of OTM curriculum	$\bar{x}$	SD	Remarks
1	Inclusion of ICT courses	3.60	.88	Highly developed
2	General studies/education	3.67	.92	Highly developed
3	Inclusion of foundation courses	3.75	.81	Highly developed
4	Inclusion of entrepreneurship education	3.76	.78	Highly developed
5	supervision of industrial work experience (SIWES) inclusion	3.72	.85	Highly developed
6	Inclusion of ICT components	3.57	.88	Highly developed
7	Inclusion of entrepreneurship education	3.64	.89	Highly developed
8	Inclusion of human resource management	3.55	.88	Highly developed
9	Inclusion of social psychology	3.52	.87	Highly developed
10	Inclusion of Nigeria Labour Law	3.53	.94	Highly developed
11	Inclusion of professional career development	3.58	.91	Highly developed
	Aggregate Mean	**3.59**		**Highly developed**

N = 66

Table 2 shows that all the 11 items on the developed contents of office technology and management curriculum have mean scores that ranged from 3.52 to 3.76 which means a highly developed curriculum content. The aggregated mean score of 3.59 shows how highly rich is the

developed contents of office technology and management curriculum is. The standard deviations for the 11 items ranged within 0.78 to 0.94 which shows that respondents were homogeneous in their opinions how highly rich is the developed contents of office technology and management curriculum used in tertiary institutions in Rivers state.

Research Question 2

How regular is OTM curriculum reviewed in tertiary institutions in Rivers state?

Table 3: Respondents' mean ratings on how regular OTM curriculum is reviewed

SN	Level of OTM curriculum review	$\bar{x}$	SD	Remarks
12	1989- 2004 – 2006 (15 years)	1.50	.72	Lowly reviewed
13	2004 – 2006 (10 years)	1.53	.74	Lowly reviewed
14	2006 – 2023 (17 years)	1.51	.73	Lowly reviewed
	Aggregate Mean	**1.51**		**Lowly reviewed**

N = 68

Table 3 with the 3 items shows how office technology and management curriculum was lowly reviewed with mean scores that ranged from 1.50 to 1.53. The aggregated mean score of 1.51 indicates how office technology and management curriculum was lowly reviewed. The standard deviations for the 3 items ranged within 0.72 to 0.74 which shows that respondents were homogeneous in their opinions that office technology and management curriculum used in tertiary institutions in Rivers state was lowly reviewed.

Research Question 3

What is the level of opportunities available in office technology and management curriculum in tertiary institutions in Rivers state?

Table 4: Respondents' mean ratings on the level of opportunities available in OTM curriculum.

SN	level of opportunities available in OTM curriculum	$\bar{x}$	SD	Remarks
15	Employability skills development	3.60	.88	High Level
16	Employment creation	3.67	.92	High Level
17	Reduction in gender inequality	3.75	.81	High Level
18	Reduction in child labour	3.76	.77	High Level
19	Reduction in cultism	3.72	.85	High Level
20	Reduction in youth unrest	3.73	.94	High Level
21	Opportunities in digital skills acquisition	3.67	.88	High Level
22	Reduction in unemployment	3.64	.89	High Level
23	Reduction in corruption	3.55	.88	High Level
24	Reduction in poverty	3.53	.87	High Level
25	Wealth creation	3.73	.93	High Level
26	Reduction in insecurity	3.58	.91	High Level
	Aggregate Mean	**3.66**		**High Level**

N = 66

Table 4 shows that all the 12 items on the opportunities available in office technology and management curriculum have mean scores ranged from 3.53 to 3.76 which means high level of opportunities available in office technology and management curriculum. The aggregated mean score of 3.66 also shows that there was high level of opportunities available in office technology and management curriculum. The standard deviations for the 12 items ranged within 0.77 to 0.93 which

shows that respondents were homogeneous in their opinions that the opportunities available in office technology and management curriculum used in tertiary institutions in Rivers state was at high level.

Research Question 4

What is the level of challenges confronting the implementation of OTM curriculum in tertiary institutions in Rivers state?

Table 5: Respondents' mean ratings on the level of challenges confronting the implementation of OTM curriculum. N = 66

SN	level of challenges confronting implementation of OTM…	$\bar{x}$	SD	Remarks
27	Low level of implementation	3.61	.87	High Level
28	Inadequate funding	3.69	.91	High Level
29	Dearth of trained teachers	3.85	.82	High Level
30	Inadequate modern office equipment	3.75	.79	High Level
31	Inappropriate/inadequate instructional strategies	3.74	.89	High Level
32	Inadequate technical manpower	3.74	.91	High Level
33	Irregular power supply	3.68	.88	High Level
34	Purchase/Supply of fake equipment	3.64	.87	High Level
35	Borrowing of equipment during accreditation	3.59	.86	High Level
36	Poor ICT background before admission	3.58	.87	High Level
37	Borrowing of manpower during accreditation	3.79	.92	High Level
38	Problem of interlopers	3.57	.92	High Level
39	Embezzlement of funds for OTM programme	3.66	.85	High Level
	Aggregate Mean	**3.68**		**High Level**

Table 5 shows that all the 13 items on the challenges confronting the implementation of office technology and management curriculum have mean scores ranged from 3.57 to 3.79 which means high level of challenges confronting the implementation of office technology and management curriculum. The standard deviations for the 13 items ranged within 0.79 to 0.92 which shows that respondents were homogeneous in their opinions that there was high level of challenges confronting the implementation of office technology and management curriculum in tertiary institutions in Rivers State

Research Question 5

What are the trending issues that need attention during implementations of OTM curriculum in tertiary institutions in Rivers state?

Table 6: Respondents' mean ratings on the trending issues that need attention during implementations of OTM curriculum. **N =66**

SN	Trending issues that need attention during implementations of OTM…	$\bar{x}$	SD	Remark
40	Adequate regular curriculum development	3.63	.85	Highly
41	Regular curriculum review	3.57	.80	Highly
42	Level of implementation	3.65	.84	Highly
43	Adequate funding	3.66	.88	Highly
44	Employment of qualified teachers	3.73	.87	Highly
45	Availability and utilization of modern office equipment	3.75	.82	Highly

46	Application of appropriate/adequate instructional strategies	3.68	.89	Highly
47	Adequate technical manpower	3.62	.84	Highly
48	Adequate and regular remuneration	3.56	.87	Highly
49	Regular training and retraining	3.68	.83	Highly
50	Adequate and regular power supply	3.74	.81	Highly
51	Heading departments with specialists in the area	3.59	.83	Highly
52	Availability and utilization of laboratories	3.78	.87	Highly
53	Design of democratic classroom	3.79	.82	Highly
54	Societal recognitions such as awards etc.	3.77	.88	Highly
55	Artificial Intelligence AI (digital skills)	3.78	.87	Highly
	Aggregate Mean	**3.68**		**Highly**

Table 6 shows that all the 16 items on trending issues that need attention during implementations of OTM curriculum have mean scores ranged from 3.56 to 3.79 which means they are highly trending issues. The aggregated mean of 3.68 shows that the trending issues highly need serious attention during implementations of OTM curriculum. The standard deviations for the 16 items ranged within 0.80 to 0.89 which shows that respondents were homogeneous in their opinions that the issues highly need serious attention during implementations of OTM curriculum in tertiary institutions in Rivers state.

Discussion

The first findings show how highly rich the OTM curriculum contents developed was. This finding concurs with Agbongiasede (2014) who noted that there was remarkable improvement in the OTM curriculum better than the old one. The deliberate inclusion of ICT components, entrepreneurship, human resource management, social psychology, Nigeria Labour Law etc., are booster to equip OTM graduates as employees and employers in private and public sectors as well as to over the volatile economic challenges of Nigeria.

The second findings indicate how OTM curriculum was lowly reviewed. The finds agree with the Ukata et al, (2017) who noted that National Board for Technical Education introduced the old secretarial studies curriculum for National Diploma and High National Diploma levels in 1989. The old curriculum became obsolete and begged for holistic review. It took NBTE about 15 years to introduce another curriculum contents with a new name Office Technology and Management in 2004 while the implementation started in 2006 which was about 17 years (Ukata, 2019). From 2006 when the implementation started to this 2023 is about 17 years and no major national review has taken place, this is a too long time to wait. Global institutions and experts in technologies subscribed to the ideas of reviewing technological curriculum every five years nationally with yearly internal review by implementers. Teachers need to be abreast with industries needs and regularly incorporate them into the curriculum as part of the internal process (Researchgate, 2013).

The third findings show high level of opportunities available in OTM curriculum. The findings sees eye to eye with Ukata and Amini (2022), Ezenwafor and Ukata, (2022), Ukata and Silas-Dikibo, (2022) who noted that there are great opportunities for OTM learners and graduates, and that the courses have the capacity to solve some major Nigeria economic challenges like unemployment, corruption, gender inequality, child labour, cultism, youth unrest among others. The fourth findings show high level of challenges confronting the implementation of OTM curriculum. The finding harmonizes with Ukata and Silas – Dikibo, (2019); Ukata and Kalagbor, (2017) who stated that there are numerous challenges confronting the implementation of OTM curriculum in the areas irregular review of the curriculum, low level of implementation, inadequate funding, dearth of trained teachers,

inadequate modern office equipment, inappropriate/inadequate instructional strategies, and inadequate technical manpower.

The fifth findings show highly trending issues that need serious attention during implementations of OTM curriculum. The findings complements Ukata and Silas – Dikibo, (2019); Ukata and Kalagbor, (2017) and Ukata, et al, (2017) who averred that the trends in global curriculum activities bother on adequate and regular development, very high level of regular curriculum review, very high level of implementation, adequate funding, employment of qualified teachers, availability and utilization of modern office equipment, application of appropriate/adequate instructional strategies, and adequate technical manpower. Others are adequate and regular remuneration, regular training and retraining, adequate and regular power supply, heading departments with specialists in the area, availability and utilization of laboratories, design of democratic classroom, and societal recognitions such as awards

Conclusion

Based on the findings that emanated from the discussions of this study, it was concluded that if the curriculum contents are very highly developed, reviewed regularly very highly, and the highly trending issues are given adequate attention with the high level of opportunities available; the challenges confronting the implementation of OTM curriculum in tertiary institutions in Rivers state will be overcome and learners will acquire the needed employability skills for global workplace and the high rate of un-employment will be drastically reduced among Nigerian OTM graduates.

Recommendations

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

1. Federal, state and local governments in connection with professional body like Association of Business Educators of Nigeria, and other stakeholders in curriculum development should improve on OTM curriculum development to a very highly rich content. This will enable the inclusion of contemporary topics like artificial intelligence (AI) among others for global workplace. Lecturers in collaboration with the authorities of their institutions offering OTM programme should do internal review of OTM curriculum yearly, while the federal government of Nigeria should do a national review every five years in accordance with global best practice for technological courses contents. Keeping the review of a curriculum as long as 17 years is worrisome.
2. Government at all levels and professional bodies should improve more on the contents of OTM curriculum with topic like artificial intelligence, digital skills to create more opportunities for OTM learners. Head of tertiary institutions should as well from their internally generated revenue procure equipment that will assist in the teaching of the programme contents. This will also give learners the opportunity to acquire the needed skills using the equipment. Teachers should be regularly trained on the use of modern equipment so that learners can as well enjoy the opportunities of interacting with skilled teachers. Tertiary institutions should as well create the opportunities of industries collaboration so that learners can have opportunities of interacting with industries players in the field of OTM.
3. Federal, state and local governments should fund OTM programme adequately. This will assist to overcome the high level of challenges confronting the implementation of OTM curriculum in the areas of irregular review of the curriculum, poor infrastructure, inadequate and irregular remuneration, poor motivation, low level of implementation, inadequate and dearth of trained teachers, inadequate modern office equipment, inappropriate/inadequate instructional strategies, and inadequate technical manpower among others.

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