

INFORMATION RESOURCES UTILIZATION AND SEEKING PATTERNS OF ENTRY ACADEMICS FOR RESEARCH IN NORTH CENTRAL, NIGERIA

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Abstract

The study examined Information Resources Utilization and Seeking Patterns of entry academics for research in North Central, Nigeria. Information resources are essential tools that support teaching, learning, and research activities in academic institutions. The development of robust research output is largely dependent on the seeking patterns and utilization of information resources. Three research objectives were formulated to guide the study which invariably formed the research questions. Descriptive survey design was adopted and population of 3606 drawn from the seven federal universities in the Zone. Population sample of 384 was drawn from the entire population using Krejcie and Morgan's (1970) table formula, questionnaire was used and instrument for data collection and descriptive statistics as instrument for data analysis. The result of the analysis reveals that books and journals are the most commonly employed information resources among entry-level academics for their research, with a majority agreed with their strong usage. Also, the analysis reveals that entry-level academics actively utilize a variety of information seeking methods to obtain relevant information such as online search, sourcing printed materials, interaction with professional colleagues, and consultation of knowledgeable persons are among the most frequently employed methods. The study recommended that management of federal universities and stakeholders should train and encourage all entry-level academics to employ various information seeking pattern in searching and accessing relevant information resources to enhance cutting edge research

KEYWORDS: Information resources, Utilization, Research, Seeking patterns, entry level academics.

Introduction

In today's knowledge-driven society, access to and effective utilization of information resources are crucial for academic and research success. Information resources are essential tools that support teaching, learning, and research activities in academic institutions. These information

resources can be in form of books, general reference, non-fiction and fiction periodicals, newspapers, journals, audio materials, disc, phonographic records, audio tapes and cassettes and other electronics resources. The information resources in an academic library is meant to meet the information needs of undergraduates, post-graduates, lecturers, research fellows and other members of the tertiary institutions, including external users. According to Ani, M., et al (2022) utilization of library resources means the total use of library facilities, personnel and information resources. Information utilization entails creation of awareness and provision of means of accessing available information resources for diverse purposes including research (Eiriemiokhale and Ibeun 2017).

The development of robust research output is largely dependent on the utilization of information resources and information seeking patterns. Ifijeh, Ogbomo and Ifijeh (2018) opined that for a meaningful research to take place, researchers should be aware of the state of the existing knowledge and have access to information which will help them to build up their own theories and findings. The authors however, noted that lecturers particularly in universities in Nigeria experience inability to search, access, evaluate and use the right information from the abundant information resources available either in print or electronic formats for research purpose. According to Adeiran & Onuoha (2018), research is essential within the university environment as it serves as a major determinant of the educational quality of an institution. Entry level academics need research output for their career progression. In this context, entry-level academics are lecturers who have ten years or less in active service and require reliable access to information resources to build their research capacity. However, access to reliable information resources by entry level academics demands application of the right information seeking patterns.

Information seeking patterns refer to distinct approaches utilized by information seekers or researchers in order to get the appropriate information that fulfills their specific information requirements. In the words of Nwone and Mutula (2018), the act of seeking information is an innate and essential aspect of human existence, driven by human curiosity, inquisitiveness, and

aspiration to enhance one's life. However, the approach employed in the process of information seeking significantly influences the quality of the obtained information. The concept of information seeking patterns is a component of information seeking behavior and can be seen as a kind of information seeking behavior

Seeking patterns determines the search terms and the sources consulted which can affect the relevance of the information resources retrieved. Many sources as we have it today can constitute a major barrier especially for the entry level academics in accessing the most useful resources. However, the region faces challenges such as inadequate information infrastructure, limited access to quality academic databases, and a lack of training in information-seeking skills. These challenges may affect the ability of entry-level academics to efficiently find and use information resources for their research. The way these academics seek and utilize information resources is key to the quality of research produced and growth within their disciplines. Examining their information-seeking patterns and the types of resources they use is essential in identifying areas for improvement, support, and development.

Statement of the Problem:

Utilization of information resources enable innovation in teaching, and increase timeliness in research as well as increase discovery and creation of new fields of inquiry. Research cannot be conducted without consultation of existing body of literature through appropriate channels and the researchers of this information age have more than enough information resources. Utilizing the available information resources using the right information seeking patterns invariably amounts to production of research output. These resources promote access to knowledge and information, expand opportunities to be in contact with up-to-date and high-quality materials, enhance research and provide tools for developing and updating personal knowledge. Entry-level academics are overwhelmed with the amount of information resources available both in print and online possibly due to inadequate training in information-seeking

patterns and lack of knowledge of the most useful resources. The concern for seeking patterns is to enable entry academics master the skills for locating reliable and useful information

These limitations hinder the academics' research productivity and professional growth, affecting their contribution to the knowledge base and the overall development of the educational system in North Central Nigeria; this can affect their web visibility and ranking if not tackled. Despite the critical role information resources play in academic research, little is known about the specific patterns and preferences of entry-level academics in seeking and utilizing these resources in their institutions. Consequent upon this, this research intends to investigate information resources utilization and seeking patterns of the entry level academics in federal universities in North Central.

Objectives of the Study:

1. Identify the information resources used by entry level academics to get relevant information in the federal universities in North Central, Nigeria.
2. Identify the information seeking patterns employed by entry level academics to get relevant information in the federal universities in North Central, Nigeria.
3. Determine the level of research productivity among the entry level academics in the federal universities in North Central Nigeria.

Research Questions.

1. What are the information resources used by entry level academics for research in federal universities in North Central Nigeria?
2. What are the information seeking patterns employed by entry level academics to get relevant information academics in the federal universities in North Central Nigeria?
3. What is the level of research productivity among the entry level academics in federal universities in North Central, Nigeria?

Literature Review

Academic staff employs distinct methodologies for conducting research, collaborating with peers, acquiring knowledge, and sharing information within their own domains. Considering the activities involved in information seeking, Emmanuel and Lucky (2019) noted that information seeking activity is actively done when taking steps to satisfy a felt need. Academics are expected to solve many vital problems connected with working, training, education, etc. on a daily basis for decision making in every life situation. Hence the need for current information makes them to consult experts, libraries, internet and other sources for information to satisfy their curious information needs for problem solving.

Information seeking patterns indicate the ability to understand information sources and applying the right search methods in locating the required information. Information-seeking patterns studies suggest that academic researchers frequently prioritize accessibility, reliability, and familiarity with resources, as noted by Makinde and Jiyane (2020). Institutions with stronger ICT infrastructures, training workshops, and adequate funding usually experience higher patronage with electronic resources (Makinde, 2018). Olasupo (2017), demonstrate varying levels of digital resource utilization depending on the library's technological capacity and support structure.

The study of Edet and Obi (2017) titled “online information seeking patterns and utilization of information resources among lecturers in University of Port Harcourt library” investigated the relationship between online information seeking pattern and utilization of resources among lecturers in the University of Port Harcourt. Guided by three research questions and three hypotheses, the survey research design was adopted for the study. The population was made up of lecturers in the University of Port Harcourt that are registered with the library, however 150 respondents were selected using simple random sampling technique. A structured questionnaire was developed by the researchers for data collection. Descriptive and inferential statistics were used to analyze the data.

The findings revealed that the lecturer's main purpose for seeking information is to update knowledge and conduct research. Most of the lecturers utilise the library's online

subscription databases to a great extent while the Online Public Access Catalogue is the least utilised source of online information. Most lecturers possessed sufficient skills needed to specify keyword for searches, browse search results, assess and extract relevant information, use advanced search techniques and apply appropriate search techniques. The study thereby recommends that concerted efforts should be made to equip users/researchers with appropriate search skills to ensure adequate utilization of the resources among others, help desks should be established in the library to assist those who need help in one way or the other, online resources should be well publicized to create adequate awareness of available resources for effective utilization of these online resources.

Also, Nwone and Mutula (2018) investigated the information seeking behaviour and seeking patterns of the professoriate in the social sciences and humanities in selected federal universities in southwest Nigeria. Hence, the scope of the study is limited to all federal universities in the South-West Geo-Political zone of Nigeria. The study was a descriptive survey of the professoriate in the social sciences and humanities. The study aim at discovering the information needs of professors, how they seek, access and share information, and their attitude towards electronic information resources. Hence, the study was guided by five objectives of the study and research questions respectively with three hypotheses. The population of the study is academics at the professorial cadre. A questionnaire consisting of both self-structured and adapted questions from previous studies was used to collect quantitative data from 246 professors sampled for the study using stratified random sampling technique. The data collected was analyzed using descriptive statistics with the Statistical Package for the Social Sciences (SPSS).

The results revealed that professoriate need information mainly for developing contents used for teaching and conducting research. They seek information for teaching and research in online databases and electronic journals, while depending on textbooks and printed journals. They make use mainly of laptop and desktops to access information. They frequently share research information in subscription-based and fee-based open access journals. The professoriate generally exhibit positive attitude towards electronic resources.

In a related study, Omah and Urhiewhu (2019) conducted a study titled “information needs and seeking patterns among academic staff in Taraba State University, Jalingo”, which is located in North East Nigeria. The main purpose of the study is to investigate the information needs, use and channel problems encounter and strategies used by lecturers to meet their information needs. The study was guided by five specific objectives and research questions which aimed at finding out the information need of lecturers, their information literacy level, channel or pattern of searching and problems faced by them. Descriptive survey was adopted for the study and the population of the study consists of all academic staff of the institution within the designation of graduate assistant to professorial cadre. A random sampling technique was adopted in selecting a sample of 299 lecturers which represents 70% of the lecturers in the institution. Also, the instrument used for data collection was structured questionnaire and the data collected from the field were analyzed using descriptive statistics, particularly using percentage and corresponding graphs.

The result of the findings shows that lecturers in Taraba State University are mostly in need of information related to their area of specialization. It also revealed that majority of the academic staff source for specialized information from the Internet and the university library mostly. The findings also show that the lecturers possess moderate information literacy skills and their information seeking pattern is quite low. Furthermore, the non-availability of indexing and abstracting services are the major problems encountered by lecturers when sourcing for information in the university library. On the basis of the findings, the researchers recommended that the university lecturers should be adequately trained to develop efficient information literacy skills and must be regularly connected to the internet to keep abreast with the development in their subject areas. Furthermore, there should be high level of current awareness services via email alert services and other social media platforms to help identify lecturers’ needs and satisfy them.

Also, Madu (2019) conducted a study titled “evaluation of academic staff awareness, access and utilization of electronic information resources in Federal Polytechnic Ede, Nigeria”. Therefore, the area of the study is limited to lecturers in the institution which is located in Ede

town in Osun State, South –West Nigeria. The research was guided by eight research objectives and research questions respectively with four hypotheses. The main purpose of the study was to evaluate the awareness, access and utilization of electronic information resources of the polytechnic library by the academic staff of Federal Polytechnic Ede. Survey research design was adopted for the study while census sampling technique was employed. The population of the study comprised all the 402 academic staff of the Polytechnic. Therefore, no sampling technique was adopted as the population was manageable. A structured questionnaire captioned Awareness, Access and Utilization of EIRs by Academic Staff Questionnaire (AAUEIRASQ) was used for data collection. 402 copies of the questionnaire were administered in which 328 amounting to 87.7 % return rate were retrieved and found valid for analysis. Data obtained were analyzed using Mean and frequency table.

The result of the study revealed among others that, there is a high and appreciable level of awareness and accessibility of EIRs among the academic staff in the Polytechnic. The academic staff in Federal Polytechnic Ede use electronic information resources for many purposes especially for the enhancement of research activities. However, the frequency of use of EIRs is low as a result of myriads of challenges such as poor internet connectivity, erratic power supply; inadequacy of EIRs in the library among others. It was therefore recommended that the government and the Polytechnic management should endeavour to provide necessary infrastructure especially power supply and internet connectivity within the Polytechnic to enhance the use of EIRs by the academic staff. The Management of the Polytechnic Library should adopt pragmatic measures in creating adequate awareness on the available electronic information resources in order to enhance their use. Training programmes on information literacy and ICT skills should be regularly organized for the academic staff by the Polytechnic Management through the Library.

Similarly, Orsu (2019) conducted a study titled “utilization of open access repositories for visibility of academic publications by Lecturers in South-East, Nigeria”. South-East has produced and is still producing great personalities in academics, politics, literature, science and

technology, sports, entertainment etc. The researcher provided five objectives of the study alongside five research questions to guide the study. It adopted descriptive survey design. Proportionate stratified sampling technique was used to draw a sample size of 418 from the total population of 4,187 lecturers. Questionnaire and observation check list were used for data collection. Frequency count, percentage, and mean score were used to analyze the data.

The study revealed that there are enough academic publications available such as books, journals, projects, and thesis with the exception of handouts. It also revealed that Google Scholar, Research Gate and Open Access Journal were the main platforms lecturers use in self-archiving; while other platforms like Institutional Repositories, among others were minimally employed. Lecturers are less satisfied with the contribution of open access repositories. All the suggested challenges such as inadequate power supply, poor network, lack of awareness and inadequate research grants were all accepted. Similarly, all the suggested strategies for improving them were accepted. Recommendations were made based on the findings which includes: more awareness creation on importance of open access repositories, information literacy training and re-training programmes for lecturers and the provision of adequate ICT infrastructures that will improve the utilization of open access repositories by lecturers which could enhance the global visibility of academic publications from the Nigerian Universities

In summary, the review of empirical studies x-rayed reports of various studies on the information resource utilization and seeking patterns of academics in university for effective research productivity. In all, attempts have been made to identify the need for information by academic staff, their most preferable types of information resources and how they are accessed, the seeking patterns necessary for research and how it all culminated to effective research productivity. However, none to the best knowledge of the researcher focused on information resource utilization and seeking pattern as factors affecting effective research productivity of the entry level academics and that is the knowledge gap this study is designed to bridge.

Methodology

The research design adopted for this study is descriptive survey design. This design is chosen for this study because a descriptive survey research is fact-finding in nature. The area of the study is North-Central geopolitical zone of Nigeria. The zone comprises six (6) states which include: Benue, Kogi, Kwara, Nassarawa, Plateau, Niger States and the Federal Capital Territory Abuja. It is situated geographically in the middle belt region of the country. This zone has seven federal universities

As at the time of the study, the population of this study consisted of 3606 entry level academic staff in all the federal universities from the North-Central, Nigeria. Specially, it comprised 414 from Federal University, Lafia, 425 from Federal of University Lokoja, 457 entry level academics from Federal University of Technology, Minna, 344 from University of Abuja, 845 from University of Jos, 758 entry level academics from University of Ilorin and 354 from Tarka University, Makurdi, Benue State (former federal university of Agriculture). This study utilized a sample of 384 entry-level academics from seven federal universities in the region. The chosen sample size aligns with Krejcie and Morgan's (1970) recommendations, where a sample size of 346 is suggested for a population of 3500 and 351 for a population of 4000 respondents. Questionnaire was used to collect data and descriptive statistics used for data analysis

Results and Discussion of Findings

Research Question 1: What are the information resources used by entry level academics for research in federal universities in North Central Nigeria?

Table 1: Information Resources used by Entry Level Academics for Research in Federal Universities in North Central.

S/NO.	Items	SA	A	D	SD	Mean	($\pm$ SD)	Rank	Remark
1	books,	139 (49.6)	132 (47.1)	6 (2.1)	3 (1.1)	3.45	± 0.6	1 st	A
2	Journals	134 (47.9)	127 (45.4)	19 (6.8)	0 (0.0)	3.41	± 0.62	2 nd	A
3	Conferences	119 (42.5)	131 (46.8)	30 (10.7)	0 (0.0)	3.32	± 0.66	4 th	A

4	subject experts and colleagues	100(35.7)	158 (56.4)	21 (7.5)	1 (0.4)	3.28	±0.61	6 th	A
5	Internet/ Search engine tools	123 (43.9)	136 (48.6)	21 (7.5)	0 (0.0)	3.36	±0.62	3 rd	A
6	online databases	119 (42.5)	131 (46.8)	30 (10.7)	0 (0.0)	3.32	±0.66	4 th	A
7	Websites	102 (36.4)	140 (50)	38 (13.6)	0 (0.0)	3.23	±0.67	7 th	A
8	Institutional repositories	79 (28.2)	152 (54.3)	49 (17.5)	0 (0.0)	3.11	±0.67	9 th	A
9.	Indexes and Abstracts	73 (26.1)	153 (54.6)	51 (18.2)	3 (1.1)	3.06	±0.7	10 th	A
10.	Online catalogue	68 (24.3)	161 (57.5)	42 (15)	9 (3.2)	3.03	±0.72	11 th	A
11.	government departments	73 (26.1)	142 (50.7)	55 (19.6)	10 (3.6)	2.99	±0.78	13 th	A
12.	patents and certified inventions	71 (25.4)	143 (51.1)	54 (19.3)	12 (4.3)	2.98	±0.79	14 th	A
13.	Monographs	69 (24.6)	154 (55)	53 (18.9)	4 (1.4)	3.03	±0.7	11 th	A
14.	Newspapers and magazines	90 (32.1)	145 (51.8)	36 (12.9)	9 (3.2)	3.13	±0.75	8 th	A

SA= Strongly Agree, A= Agree, D= Disagree, SD = Strongly Disagree

The table 1 above presents the results of the survey on information resources utilized by entry-level academics for their research. Respondents were asked to indicate their level of agreement or disagreement with the usage of each response options such as Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). Mean values were calculated to provide an overall measure of the prevalence of each resource's usage.

Among the information resources considered, "Books" received the highest mean value of 3.45, indicating that a significant number of entry-level academics agree with the strong usage of books for their research, while only a minor proportion strongly disagreed (Mean= 3.45).

Similarly, the majority of entry-level academics equally agreed with the usage of most other information resources for research. "Journals" (Mean= 3.41), "Conferences" (Mean= 3.32), "Subject experts and colleagues" (Mean= 3.28), "Internet/Search engine tools" (Mean= 3.36), "Online databases" (Mean= 3.32), "Websites" (Mean= 3.23), "Institutional repositories" (Mean= 3.11), "Indexes and Abstracts" (Mean= 3.06), "Online catalogue" (Mean= 3.03), "Government departments" (Mean= 2.99), "Patents and certified inventions" (Mean= 2.98), "Monographs" (Mean= 3.03), and newspapers and magazines (Mean=3.13), all with mean value above 2.5 indicating that they are widely employed by entry-level academics in their research.

Research Question 2: What are the information seeking patterns employed by entry level academics to get relevant information academics in the federal universities in North Central Nigeria?

Table 2:Information Seeking Patterns Employed by Entry Level Academics to get Relevant Information in Federal Universities in North Central

S/N	Items	HE	E	LE	NE	Mean	±SD	Rank	Remark
1	Online search (online database, search engines, website etc)	131 (46.8)	127 (45.4)	20 (7.1)	2 (0.7)	3.38	±0.65	1 st	E
2	Sourcing the printed materials	103 (36.8)	150 (53.6)	25 (8.9)	2 (0.7)	3.26	±0.65	2 nd	E
3	Interaction with professional colleagues	98 (35)	152 (54.3)	28 (10)	2 (0.7)	3.24	±0.65	4 th	E
4	Consultation of knowledgeable person in the field	106 (37.9)	142 (50.7)	30 (10.7)	2 (0.7)	3.26	±0.67	2 nd	E
5	Downloading eBooks/journals	100 (35.7)	130 (46.4)	49 (17.5)	1 (0.4)	3.18	±0.72	6 th	E

6	Visit to the library	102 (36.4)	145 (51.8)	31 (11.1)	2 (0.7)	3.24	±0.67	4 th	E
7	Consulting abstracts and indexes	72 (25.7)	150 (53.6)	55 (19.6)	3 (1.1)	3.04	±0.70	8 th	E
8	Consulting archival materials	89 (31.8)	129 (46.1)	58 (20.7)	4 (1.4)	3.08	±0.76	7 th	E

KEYS:HE= Highly employed, E= Employed, LE= Less employed, NE = Not employed,

Table 2 presents the results of the survey on information seeking patterns employed by entry-level academics to obtain relevant information. Respondents were asked to indicate the extent of employment for each information seeking patterns, categorized as Highly Employed (HE), Employed (E), Less Employed (LE), and Not Employed (NE). Mean values were calculated to provide an overall measure of the prevalence of each information seeking method.

Among the information seeking methods considered, all items received high mean values, ranging from 3.04 to 3.38, indicating that these methods are actively employed by entry-level academics to gather relevant information.

The most commonly employed method was "Online search," including online databases, search engines, and websites, with mean values 3.38 indicating highly employed by entry level academics for getting relevant information. Similarly, Sourcing the printed materials and Consultation of knowledgeable persons in the field were considered highly employed having mean values of 3.26 each. Interaction with professional colleagues and visit to the library were highly employed having the same mean values of 3.24. Downloading eBooks/journals has the mean ration of 3.18, consulting archival materials 3.08 and Consulting abstracts and indexes 3.04, respectively considered employed by the entry level academics.

Resaech Question 3: What is the level of research productivity among the entry level academics in federal universities in North Central, Nigeria?

Table 3:Level of Research Productivity among the Entry Level Academics in Federal Universities in North Central, Nigeria

S/NO	Items	VHL	HL	LL	VLL	Mean	($\pm$ SD)	Rank	Remark
1	Textbooks	92 (32.9)	143 (51.1)	38 (13.6)	7 (2.5)	3.14	± 0.74	3 rd	HL
2	Chapters in books	70 (25)	139 (49.6)	64 (22.9)	7 (2.5)	2.97	± 0.76	8 th	HL
3	Co-authored textbooks	72 (25.7)	131 (46.8)	71 (25.4)	6 (2.1)	2.96	± 0.77	9 th	HL
4	Patent & certified invention	54 (19.3)	133 (47.5)	73 (26.1)	20 (7.1)	2.79	± 0.84	12 th	HL
5	Monographs	70 (25)	117 (41.8)	66 (23.6)	27 (9.6)	2.82	± 0.92	11 th	HL
6	Occasional papers	80 (28.6)	141 (50.4)	53 (18.9)	6 (2.1)	3.05	± 0.75	5 th	HL
7	Articles in learned journals	89 (31.8)	146 (52.1)	43 (15.4)	2 (0.7)	3.15	± 0.69	2 nd	HL
8	Technical reports	82 (29.3)	125 (44.6)	66 (23.6)	7 (2.5)	3.01	± 0.79	6 th	HL
9	Scientific peer-reviewed	98 (35)	120 (42.9)	51 (18.2)	11 (3.9)	3.09	± 0.83	4 th	HL
10	Conference papers	112 (40)	134 (47.9)	29 (10.4)	5 (1.8)	3.26	± 0.71	1 st	HL
11	Patents	71 (25.4)	134 (47.9)	60 (21.4)	15 (5.4)	2.93	± 0.82	10 th	HL
12	Working papers	71 (25.4)	147 (52.5)	51 (18.2)	11 (3.9)	2.99	± 0.77	7 th	HL

Keys: VHL= Very High Level; HL= High Level; LL= Low Level; VLL= Very Low Level

The table 3 presents the results of the survey on the level of research productivity among entry-level academics in federal universities in North Central Nigeria. Respondents were asked to indicate the extent of their research productivity using the response options such as Very High Level (VHL), High Level (HL), Low Level (LL), and Very Low Level (VLL). Mean values were calculated to provide an overall measure of the research productivity for each item.

Across all research productivity indicators, the mean values ranged between 2.79 to 3.26, indicating a High Level (HL) of research productivity among entry-level academics. "Conference papers" (Mean= 3.26) received one of the highest research productivity rating among entry-level academics. "Articles and learned journals" also had a high research productivity rating (Mean= 3.15). This was followed by textbooks with a mean value of 3.14. Scientific Peer-reviewed, Occasional papers and Technical reports also received high research productivity ratings (Mean=3.09, Mean=3.05, and Mean=3.01) of respondents, respectively, indicating a very high level of rating. "Chapter in textbooks", "Co-authored textbooks", "Monographs" and "Patent and certified inventions" (Mean= 2.97, Mean= 2.96, Mean=2.82, and Mean=2.79) received slightly lower but still high research productivity rating.

Discussion of the Findings

The study examined information resources utilization and seeking patterns of entry academics for research in North Central, Nigeria. The findings of the study revealed that majority of the entry level academics in North Central Nigeria use newspaper and magazine, books, conference proceedings and Internet/search engine tools as the major information tools and sources for effective research productivity. This agrees with the findings of Barfi, Afful-Arthur and Agyapong (2018) who reported that information sources such as textbooks, journals, research monographs, research reports, newspapers, indexes/abstracts, internet services and dictionaries/encyclopedias are used by lecturers for research purposes. Another major finding was that lecturers utilized books more than any other source of information. Also, this work is in

consonance with Orsu (2019) who revealed that academics use academic publications such as books, journals, projects, and thesis with the exception of handouts for their research. Okonoko, Emeka-Ukwu and Ejiro (2015) agreed that most academic staff use books (print & online) as their preferred source of information.

The result of the investigation yielded to Omah and Urhiewhu (2019) who revealed that majority of the academic staff source for specialized information from the Internet and the university library. Mamo and Amidu (2016) investigated the availability and use of information resources and services by the lecturers of College of Agriculture Lafia in order to enhance their teaching and research activities. They observed the lukewarm attitude of some lecturers in Collage of Agriculture Lafia, Nassarawa State, North-Central Nigeria, toward utilization of library resources and services. In collaboration, Siamian, Yaminfirooz, Dehghan and Shahrabi (2013) showed that among the various information sources, faculty members have more undemanding and convenient access to the Internet compared to other resources use, however, half of the information needs of faculty members are provided by the printed books. Also, Barfi, Afful-Arthur and Agyapong (2018) showed that information resources such as books, journals, newspapers, internet services are used by lecturers for research purposes.

The analysis reveals that entry-level academics actively utilize a variety of information seeking methods to obtain relevant information. Online search, sourcing printed materials, interaction with professional colleagues, and consultation of knowledgeable persons are among the most frequently employed methods, indicating their importance in the academic community. Also, downloading eBooks/journals, visiting the library, and consulting abstracts and indexes are widely utilized by entry-level academics to access pertinent information for their research activities. In consonance with this finding, Omah and Urhiewhu (2019) revealed that majority of the academic staff source for specialized information from the Internet and the university library.

Nwone and Mutula (2018) revealed lecturers seek information for teaching and research in online databases and electronic journals, while depending on textbooks and printed journals. They make use mainly of laptop and desktops to access information. Also, Adeniran and Onuoha (2018) also opined that people's ability to discover the need for information as well as search skills predict their level of electronic resources use in the academic environment which promote access to current information resources and invariably harness research productivity

The finding also revealed that research productivity of entry level academics in federal universities in North Central Nigeria is at high level in co-authored textbooks, occasional papers, articles in learned journals, patents and working papers, chapters in books, textbooks, technical reports, conference papers, scientific peer review and monographs. Further analysis revealed that there is no significant relationship between the level of entry level academics (grade level) and research productivity. Alzahrani (2011) stressed that academic research is the backbone of human activity in the way that it improves our quality of life through expanding frontiers of academic knowledge and making further research possible throughout the world. Academics as researchers publish to establish their claim to a specific result at a specific point in time. Hence, the level of academics is not a significant predictor of their research productivity. In line with this Okonedo (2015) indicated that the publication output of academics under the year studied was relatively high. Librarians publish more in international journals than local journals and, librarians are motivated to publish mostly for promotion.

Conclusion and Recommendations

Utilization of information resources can be dependent on the awareness, availability, accessibility and seeking patterns employed by the researcher. The use of books mostly by the

entry level academics could be attributed to lack of right seeking patterns which give access to current and up to date materials that aid research. The implication of the findings on information seeking patterns is that entry level academics employ a range of strategies and sources to access information, reflecting the dynamic nature of information retrieval in today's information age. The implication for Libraries, information providers, and universities is to prioritize user-centered services, understanding the preferred information-seeking patterns of their users. The prevalence of internet searches and the ability to download e-books and periodicals emphasizes the growing significance of digital resources in the process of finding information. This highlights the requirement for universities and libraries to keep strong digital collections and give access to online databases and periodicals.

These results underscore the importance of supporting and nurturing early-career academics, fostering a collaborative research environment, and recognizing the value of diverse research outputs in the pursuit of academic excellence and regional development. This implies that universities should focus on providing support, mentorship, and resources to entry level academics to facilitate their research efforts.

Recommendations

Within the context of the findings and implications of this study, the following recommendations are made.

1. The management of federal universities and stakeholders should train and encourage all entry-level academics to employ various information seeking pattern in searching and accessing relevant information resource to enhance cutting edge research.
2. The federal universities in collaboration with their libraries and ICT centers should expose their entry level academics to various information resources/sources relevant for improved research productivity.

3. The management of federal universities should develop effective policies and programmes in collaboration with other stakeholders so as to improve the level of research productivity among their entry level academics.

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