PERCEPTION OF UNDERGRADUATE STUDENTS TOWARDS THE USE OF ELECTRONIC DATABASES FOR ACADEMIC ACTIVITIES IN UNIVERSITY LIBRARIES IN KANO STATE.

BY

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Abstract

This study investigated the perception of undergraduate students towards the use of electronic databases in university libraries in Kano State. The objectives of the study were to determine the types of electronic databases available in university libraries in Kano State, to find out the perception of undergraduate students towards the use of electronic databases and to ascertain the extent of use of electronic databases. The study adopted a quantitative research approach using a cross-sectional survey design. The population of the study was thirty thousand, two hundred and one (30,201) undergraduate students in universities in Kano State. A proportionate sampling technique was used to calculate the sample size of the study. Three hundred and seventy-nine (379) undergraduate students were selected to form the sample size for the study. A self-developed questionnaire was the instrument used to collect data with Cronbach's alpha reliability coefficient results of .903 (90.5%) with 161 items. The data collected was analyzed using descriptive statistics; while the chi-square test using SPSS version 26 was used to determine the relationship between the variables of the study. The findings from the study revealed that university libraries in Kano State provide an adequate number of electronic databases which are very relevant to the students but fairly accessible. The study also discovered that the perception of the undergraduate students towards the use of electronic databases was positive as the findings established that some of the databases; Science Direct, ProQuest, Jstor, EBSCOhost and Hinari are most positively perceived with the majority of 50 (47%) of them. likewise, the study indicated there is a statistically significant relationship between perception and use of electronic databases. The study concludes that the undergraduate students in Kano State formed favorable attitudes towards the use of electronic databases despite challenges they experienced in their accessibility. The study further recommends for the need to raise the students' awareness about databases through orientations and campaigns among others.

Keywords: Perception, Use, Electronic databases, Undergraduate students, Academic activities, University libraries, Kano State.

Introduction

Electronic databases are searchable electronic collections of information resources by the publisher in various fields and disciplines which are stored in computer-readable form and can be accessed offline and online. These databases are provided free of charge or through subscription by libraries and information centers to their publishers or vendors. Electronic databases are categorized into textual, numerical, bibliographical, non-bibliographic, offline and online, etc. (Ibrahim, 2018). Electronic databases, started in the 1960s when IBM introduced the first database system that was widely accepted and was called Semi-Automatic Business Research Environment (SABRE). It is today known as a database that was first used at American Airlines to manage reservation data. Electronic databases became available in libraries in the 1970s. The first Machine-Readable Database appeared in the 1974 volume, later, in 1977 when the full-text databases emerged.

As the availability of databases increased, library funds for acquisitions were decreasing. This decrease forced libraries to move from the concept of comprehensive collections of all that their users could want to collections of the most heavily used items with a dependence on access to collections for lesser-used items (McCredie & Rice, 2017). Bibliographic databases provide quick and improved access to other collections and information about publications that a library might or might not have in its collection. The means of the access itself, rather than the materials became a component of any individual library's collections. The term "database'' according to Feng, Yanting and Wenping, (2020) viewed it as a stock of information stored electronically with a retrieval mechanism for easy and effective access. They are one of the most important advances of the last few decades in the field of data processing. They sprang up in response to rapid advances in scientific research and technological development in industrialized countries and the needs associated with these advances. In my view, Databases have unquestionably had a central role in the progress of numerous domains such as business, science, and academia. They achieve this by offering a systematic and well-structured means to manage extensive datasets. The fact that they can easily adjust to changing technological environments underscores their continued significance in the era of digital technology. Not only have they laid the basis for easy, rapid, and efficient access to the vast stores of information available, but also analyzed the information. An important result of Information, Communication, and Technology (ICT) has been the development of databases covering specific areas of knowledge. Their development has made for easier access to relevant information on a specific topic. These sources of information are

classified into offline and online information resources. In recognition of the importance of electronic information for research libraries and information centres, they either enter into a subscription with international organizations that produce such resources or solicit support from the donor or funding agencies to acquire electronic information databases. Users of peer-reviewed online journals are required to register with the producing organization and their use is controlled using password authentication. Perception could be seen as the ability to see, hear, or become aware of something through the senses". According to the Online Cambridge Dictionary (2020), perception is "a thought, belief or opinion, often held by many people and based on how things seem. When looking at it in awareness form, awareness of things through the physical senses, especially sight. Similarly, perception is the process by which a person is confronted with a situation or stimuli; the person interprets the stimuli into something meaningful to him/her, based on prior experiences. However, what an individual interprets or perceives may be substantially different from reality (Rajah, & Hammond. 2022). Perception is very important in understanding the behavior or experience of the use of electronic databases in university libraries in Kano state plays a significant role in academic activities and assists researchers, educators, lecturers, students, and others with a special interest in the area of research. Perception is a subjective, active and creative process through which we assign meaning to sensory information to understand ourselves and others. Perception of user seems to be user experience as "a person's perceptions and responses that result from the use or anticipated use of a product, system or service".

Many undergraduate students now consult and utilize electronic databases made available to them in their libraries for different purposes such as its currency. Nisha (2013) found that users of their library used electronic databases because of the currency of e-journals' articles and the rich content of information resources. With today's computing technology, undergraduate students in university libraries in Kano State find it much easier to locate resources through an internet connection and pick them up upon their arrival, rather than wasting time scouring the lanes looking for your next read. The world has been blessed with wonderful databases and software solutions that make everything easier to do. Electronic databases and electronic resources have revolutionized libraries worldwide, university libraries inclusive. These advancements have helped provide better and faster user services. However, the academic library has the basic responsibility of providing adequate informational resources and services to support academia and enhance academia's learning, teaching, and research activities. The use of different electronic databases made available by library patrons involves searching,

browsing, examining, or surfing electronic databases, downloading, and printing them by the user. The research covers the entire five universities domiciled in Kano State. Kano is a state in Northern Nigeria and one of the most populated states in the country. There are five (5) universities in Kano. These Universities are Bayero University, Kano, University of Science and Technology Wudil, Nigeria Police Academy Wudil, Yusuf Maitama Sule University, and Skyline University. These are a combination of federal, state, and private universities. They were established to support teaching, learning and research activities in the state, and also, their other function is commonly offering higher degrees and a variety of certificates.

To accomplish the objectives of the study, quantitative research methodology with survey and cross-sectional design was applied to the study. The research was underpinned by the Technology Acceptance Model (TAM) which served as the theoretical lens of the study. The researchers found this model relevant to the study because it is one of the most commonly and widely used models.

Statement of the Problem

The use of electronic databases in libraries is indeed a critical part of the learning environment, especially in higher education. These systems offer significant benefits, such as space-saving, ease of access, and the ability to support multiple simultaneous users. As highlighted in recent research, electronic databases enhance efficiency in academic and organizational settings by facilitating the seamless retrieval and dissemination of information across geographical boundaries. This is particularly crucial as higher education institutions increasingly adopt digital tools to support learning and research processes (Zibani, & Ahlam, 2021). However, despite these advantages, many libraries offer only a limited variety of electronic databases, and users often do not fully recognize their potential to streamline the information search process. Libraries allocate their funds to subscribe to these databases for the benefit of the university community, especially undergraduate students. Maximizing the utilization of these databases relies heavily on the users' attitudes towards them.

Objectives of the Study

The main objective of this study is to investigate the perception of undergraduate students towards the use of electronic databases for academic activities in university libraries in Kano state. The specific objectives are to:

1. Examine the types of electronic databases available in university libraries in Kano State.
2. Determine the perception of undergraduate students towards the use of electronic databases for academic activities in the libraries under study.

Literature Review

Related literature that was found relevant and related to the individual variables of the study and the subject matter under study as a whole were reviewed. The term "database'' according to Feng, Yanting and Wenping, (2020) is viewed as a stock of information stored electronically with a retrieval mechanism for easy and effective access. They are one of the most important advances of the last few decades as they ease research activities. They sprang up in response to rapid advances in scientific research and technological development in industrialized countries and the needs associated with these advances.

Electronic databases have multimedia and interactive capabilities: electronic page layout has the possibility of supporting full text, figures, graphics, and other innovative ways of presenting
research results. For this reason, the electronic database contains all features and has information for any scientific domain or any field of research. It also has Internal and External links: The publishers, research groups, and authors can be contacted through electronic mail. The networks created between the groups allow users the possibility of finding items of interest irrespective of the publisher. Links are important for users to provide faster, more direct access to more information and for librarians by supporting more effective information retrieval; Users have more creative ways to have their information queries answered (Rugengamanzi, 2013). It is clear from the above discussion that, there are various conceptions of the electronic databases and many definitions are given especially from two perspectives. Electronic databases are essential tools for university libraries, providing improved access to information resources and supporting teaching, learning, and research activities. According to Encyclopedia Britannica (2023), a database is an organized collection of information or data usually in computer-readable form. Generally, they are made available either for use online or offline search services. These search services have computers and software that facilitate the retrospective search of one or more databases to locate information or references in answer to a specific query. Databases are mostly characterized by the kind of data they contain which may be words, numbers, or subject matter. Whereas word-oriented databases contain words or text as the principal data, numbers-oriented databases are often referred to as databanks and

they contain numbers, symbols, series, graphs, and tables e.g. CD-ROM, online databases to mention just a few.

Perception of undergraduate students towards the use of electronic databases: It is important to note that in our daily activities, we tend to attach meaning to what we see around us. Those things we see around us are defined internally and our mind interprets these meaningfully, in a process known as perception. In other words, we perceive objects, people, and possibly events around us and we tend to attach names to those things we see to make meaning.By definition, perception has been defined as (a) "a result of perceiving: observation, (b) a mental image: the concept" (Merriam-Webster, 2020). Perception is the process whereby organisms interpret and organize sensations to produce a meaningful experience of the world. (Lindsay & Norman, 2019). However, what an individual interprets or perceives may be different from reality.

The perception process follows four stages: stimulation, registration, organization, and interpretation (Lindsay & Norman, 2019). This may be one of the reasons that dictate to a large extent why some undergraduate students may consider databases relevant more than other users. Zulhernanda, (2018) share the main opinion of the above definition. In their own words, "Perception is the process whereby people select, organize, and interpret sensory stimulations into meaningful information about their work environment". They argue that perception is the single most important determinant of human behavior, stating further that "there can be no behavior without perception". Though, focusing on the perception and attitude of undergraduate students towards electronic databases, Zulhernanda (2018) draw attention to the fact that since there were no specific strategies for the understanding of others, everyone appears to be "left with his inventiveness, innovative ability, sensitiveness, and introspective skills to deal with perception".

The perception of library users about library resources is of utmost importance because, to a large extent, it determines the level of information resource usage in academic libraries. However, American Library Association, (2020) stated that the more available and accessible resources are, the more they will utilized. This may not be true hence the study of Yamson et al. (2018) on the perception and use of both print and electronic journals among nursing faculty showed that 75% of the respondents utilized print journals frequently against 25% who used electronic journals to the same extent. The use of electronic information resources may be influenced by awareness, perception, interest, and exposure that a user has. For instance, a person's awareness of a database can be shaped by their level of interest and exposure.

Additionally, perception plays a role, in motivating users to make use of library resources. Bamidele (2013) believes that the perception and use of certain resources in the library depend on users' awareness, packaging, the format it is presented, ease of use, result-oriented, and the role of the tutor.

Abdurrazak (2016) as cited in Nelson and Quick (2009) described the three major characteristics that influence our perception of other people or things to which they say:

• Perceiver's specific characteristics: - One of the perceivers – specific factors that influence perception is familiarity with the object of perception. Familiarity implies that, compared to others, we are better positioned to make observations leading to a better relative ability to arrive at supervisor decisions about a particular situation. This characteristic is relevant to the present study as maybe, undergraduate students are familiar with it and when they are not familiar with it that might be very difficult for them to use it. However, if they are familiar with the databases, their perception of them might be positive. In other words, familiarity counts very much because for one to perceive something accurately you must have been familiar with such a thing, either through your experience or knowledge.

• Target–specific characteristics: - One of the most important target-specific characteristics is the physical appearance of the perceived. Some of these characteristics include height, weight, estimated age, race, and gender. The way a person dresses speaks volumes about him or her.
• Situation–specific characteristics: - This is a very significant factor that affects the impression that informs someone about an individual. Therefore, among the three characteristics of perception, the perceiver's specific characteristic which has to do with familiarity with the target is the one that is related to the topic of discussion, i.e. perceptions towards the use of electronic databases. As noted by Spiro (2017): To perceive something, one must first be aware of it. Thus awareness may be a considered aspect of perception, perhaps the most basic and preliminary aspect, and research into individual differences in the awareness of stimuli is a legitimate and productive research aim.

There are several empirical studies conducted on electronic databases. For example, Kore and Samuel (2023) investigated the usage of electronic databases in academic libraries in Ghana. The experience of Ghana Communication Technology University Library (GCTUL). This study examines the use of electronic databases (e-databases) by faculty members at the Ghana Communication Technology University Library (GCTUL). The study used a descriptive research method. Questionnaires were used for the data collection. The Statistical Package for

the Social Sciences (IBM-SPSS 21.0) was used for data analysis. The finding of the study revealed that most faculty members were aware of the availability of databases in the library. Additionally, the findings established that Emerald, as well as Taylor and Francis, were ranked highly in terms of availability and accessibility. The study also identified problems such as difficulty in downloading information as well as poor internet connectivity. Based on the results, the study recommended that library management should address all the challenges that users encounter as soon as possible.

Another study conducted by Hadi, and Yahaya (2020) investigated the perception, access and use of electronic databases among undergraduate students-users of Umaru Musa Yar'adua University Library, Katsina State, Nigeria. The objective of the study was to find out the extent to which the students access to e- databases. A quantitative research method was used, and a survey research design was adopted. The population of the study was one hundred (100) undergraduate students. Data were collected using a self-developed questionnaire. The findings among others revealed that there is high access among the students to the use of e-databases. The study recommends that students' orientation on the use of e-databases should be organized by the library management at the beginning of every academic year so that they can be abreast of how to utilize the available databases in the library.

Similarly, Adekunle and Ojemola (2021) in their study assessment of the use of electronic databases by academic staff, at Bowen University, Nigeria. The study assessed the use of electronic databases by the academic staff of Bowen University, Nigeria. Descriptive analysis including percentage and frequency count was used to analyze the data. From the total population of 500 academic staff, a sample of 75 was taken using the simple random sampling technique. A questionnaire was used as an instrument for data collection. The questionnaire used was to collect data from the respondents. The results show that the majority of academic staff were aware of available e-databases, and use them to improve teaching delivery and research output. The challenges encountered include inadequate time and an overwhelming workload. The study concludes by recommending a drastic reduction in workload, increasing bandwidth, and hotspots and entrenching customer-friendly policies in the library.

Patricia and Sibanda (2023) in their study investigated user perceptions, use and challenges in accessing electronic resources by students and lecturers at Arrupe College Library. The Technology Acceptance Model was adopted as the framework for analysis. The study employed both qualitative and quantitative approaches. The research design used was a

descriptive survey while the sampling technique was stratified random sampling using proportional representation to select participants from a student population of 118. Data was collected using the questionnaire technique from students and supplemented by the observation technique on the use of electronic resources. The Statistical Package for the Social Sciences (SPSS) and content analysis were used to analyze the quantitative and qualitative data. The study revealed that awareness and usage were high, but not uniform across all electronic resources offered by the library. Users found the ease of use and were satisfied with the service but expressed the need to expand e-resources, particularly e-books. The findings also revealed that there was a low intake of open-access resources. The findings also revealed that TAM is an effective model for understanding the use and adoption of technology. The main challenge was the inadequacy of e-resources, computers, awareness, and training. The study recommends that the library should invest more in e-resources, particularly e-books, conduct more awareness and training, increase computers, and promote the use of open access.

Omeluzor, Akibu, Akinwoye's (2016) Students' Perception, Use and Challenges of Electronic Information Resources in Federal of Petroleum Resources Effurun Library in Nigeria. The objective of this study is to investigate students' perception, use and challenges of electronic information resources at the Federal University of Petroleum Resources Effurun, Nigeria. A descriptive survey research design was adopted. A census sampling technique was used and data was gathered from Two hundred and forty-nine students of 500 level in the Departments in the College of Technology. The data gathered were analyzed using descriptive and inferential statistics. The result revealed that electronic information resources are used at different levels by the respondents with e-journal, e-database, web OPAC and repositories recording high usage. It shows that users' perception influences use of electronic information resources in academic libraries with (β =.214, p<.05). From the findings, it is deduced that users' perception influences use of e-resources in academic libraries, while lack of awareness, lack of training, unreliable Internet connectivity, insufficient e-resources in various study areas, unavailability of e-resources on 24/7 and difficulty of identifying relevant information to meet users' needs are challenges hindering use of e-resources. The study concludes that librarians should acquire more e-resources to cover various study areas, create more awareness of e-resources at the library to change users' perceptions and introduce a 24/7 internet service.

Undergraduate academic activities in university:The utilization of electronic databases among undergraduate students varies significantly by institution and academic discipline. Research by

He et al. (2012) reveals that students primarily engage with these electronic resources for complex academic tasks, leveraging search engines and online databases to enhance their research capabilities. Furthermore, Bladek (2019) indicates that a considerable number of students access electronic databases regularly, using them to support a wide array of assignments and projects. This suggests a growing reliance on digital resources in the academic landscape, reflecting a shift in how students approach their studies.

However, the frequency of database usage is often correlated with the availability of training and support services. Haruna et al. (2024) emphasize that students who receive proper orientation regarding database functionalities are more inclined to utilize these resources effectively. This highlights the importance of library-led initiatives in promoting user engagement, suggesting that when students are equipped with the necessary skills and knowledge, they are more likely to integrate electronic databases into their academic routines.

Despite the evident benefits, several challenges impede the effective use of electronic databases. Issues such as unreliable internet connectivity and insufficient technological infrastructure pose significant barriers for many students (Haruna et al., 2024). Additionally, Bladek (2019) notes that navigating electronic databases can be daunting for some, leading to frustration and reduced usage. This challenge is exacerbated by a general lack of awareness about available databases, underscoring the need for libraries to enhance their promotional efforts. Notably, students often express a preference for traditional resources over electronic databases for specific academic tasks (He et al., 2012), indicating that while electronic resources are valuable, they do not entirely supplant the role of conventional materials in students' academic workflows.

To maximize the effective use of electronic databases, university libraries should implement targeted strategies, including regular training sessions, workshops, and awareness campaigns aimed at building students' confidence in navigating these resources (Bladek, 2019). Additionally, addressing infrastructural challenges such as improving internet access and ensuring user-friendly platforms is essential for creating an academic environment that fosters effective learning. In conclusion, while electronic databases are vital to undergraduate students' academic activities, overcoming existing barriers and enhancing support services will be crucial for optimizing their utilization and contributing to academic success.

It was discovered from the review, that there are no empirical studies that tried to gauge the perceptions of undergraduate students towards electronic databases in Universities in Kano

State. However, the review is not comprehensive enough. To the best of our knowledge, no research has investigated the perception of undergraduate students regarding the use of electronic databases in universities within the study area. This study aims to bridge that gap.

Methodology

The quantitative research methodology was adopted using a cross-sectional survey design. Thepopulation of the study was thirty thousand two hundred and one (30,201) undergraduate students in a university in Kano State. Out of this, 379 undergraduate students were proportionately selected to serve as the sample size for the study Therefore, the Taro Yamane's formula for sample size was adopted. Thus, $\frac{N}{TP} \times S$, Where **N**: refers to the total numbers of the population in a particular university, **TP**: refers to the total population, **S**: means sample size

$$\frac{No \; of \; student \; in \; a \; university}{Total \; population} \times 379 \; \text{(Proportionate sample for a university)}.$$

A self-developed questionnaire titled perception of undergraduate students towards the use of electronic databases for academic activities in **university** libraries (PUSEDAUL) was the instrument used to collect data. Furthermore, the instrument was subjected to the validity from research experts from the department of library science and information from Bayero University, Kano. A Cronbach Alpha reliability tested with a coefficient of .903 (90.5%). A total number of 379 copies of the questionnaire were administered out of which 339 representing 89.4% were returned and found usable for the analysis. Data collected was analyzed using descriptive statistics using SPSS version 26.

Data Analysis and Results

A total of 379 copies of the questionnaire were distributed to the respondents, out of which 339 were completed, returned and found usable for the analysis representing an 89.4% response rate. This shows that there was a high response rate which is good enough for the analysis. The high response rate was adequate for analysis in survey studies, which is significant enough for analysis in this study. According to Bryman (2015), a 50 per cent relative response rate is barely acceptable, arguing further that a response rate of 60 per cent is good, a response rate of 70 per cent is very good and a response of 80 percent is excellent. Therefore, based on Bryman's criteria (2015), the response rate of 89.4% obtained in this study was deemed adequate.

Table 1: Response Rate from the five Institutions

S/N	Name of Institutions	Administered	Returned	Not returned
1.	Bayero University, Kano (BUK)	163(43.0%)	150(40.0%)	13(3.4%)
2.	Nigerian Police Academy (POLAC)	53(14.0%)	46(12.1%)	7(1.8%)
3.	Kano University of Science and Technology (Wudil)	41(10.8%)	35(9.2%)	6(1.6%)
4.	Skyline University of Nigeria (SUN)	8(2.11%)	8(2.11%)	-
5.	Yusuf MaitamaSule University, Kano (YUMSUK)	114(30.1%)	100(26.4%)	14(3.69%)
Total		379(100%)	339(89.4%)	40(10.6%)

Types of Electronic Databases Available

This section sought to find out the available types of electronic databases in the libraries.

Table 2: Types of Electronic Databases Available

S/N	ELECTRONIC DATABASES	SA	A	NA	SNA	X	Remark
1.	African Digital Library	65(19.2%)	75(22.1%)	160(47.2%)	39(11.5%)	2.5	Agree
2.	AGORA	69(20.4%)	41(12.1%)	179(59.6%)	27(8.0%)	2.5	Agree
3.	AGRICULA	35(10.3%)	36(10.6%)	205(60.5%)	63(18.6%)	2.1	Disagree
4.	Al-Mausooah Al-Arabiyya	48(14.2%)	27(8.0%)	234(69.0%)	30(8.8%)	2.3	Disagree
5.	EBSCOHOST	134(39.5%)	85(25.1%)	111(32.8%)	9(2.7%)	3.0	Agree
6.	E-Granary	100(29.5%)	66(19.5%)	155(45.7%)	18(5.3%)	2.7	Agree
7.	Emerald	63(18.3%)	51(15.0%)	190(56.0%)	36(10.6%)	2.4	Disagree
8.	Encyclopedia Americana	120(35.4%)	81(23.9%)	123(36.3%)	15(4.4%)	2.9	Agree
9.	Encyclopedia Britannica	102(30.1%)	77(22.7%)	142(41.9%)	18(5.3%)	2.8	Agree
10.	E-THESES	62(18.3%)	158(46.6%)	113(33.3%)	6(0.7%)	2.8	Agree
11.	HeinOnline	64(18.9%)	152(44.9%)	99(29.2%)	24(7.1%)	2.8	Agree
12.	HINARI	72(21.2%)	47(13.9%)	196(57.8%)	24(7.1%)	2.5	Agree
13.	Indiana University Press	30(8.8%)	39(11.5%)	223(65.8%)	47(13.9%)	2.2	Disagree

14.	JSTOR	95(28.0%)	71(20.9%)	143(42.2%)	30(8.8%)	2.7	Agree
15.	LANTEEAL	54(15.9%)	135(39.8%)	129(38.1%)	21(6.2%)	2.7	Agree
16.	Law Pavilion	55(16.2%)	48(14.2%)	221(65.2%)	15(4.4%)	2.4	Disagree
17.	LexisNexis	48(14.2%)	45(13.3%)	228(67.3%)	18(5.3%)	2.4	Disagree
18.	MEDLINE	39(11.5%)	63(18.6%)	180(53.1%)	57(16.8%)	2.3	Disagree
19.	Nigerian Virtual Library	60(17.7%)	84(24.8%)	168(49.6%)	27(8.0%)	2.5	Agree
20.	Oxford Academic Journals	85(25.1%)	72(21.2%)	167(49.3%)	15(4.4%)	2.7	Agree
21.	Proquest	116(34.2%)	137(40.4%)	71(20.9%)	15(4.4%)	3.0	Agree
22.	Sage	39(11.5%)	29(8.6%)	122(36.0%)	149(44.0%)	1.9	Disagree
23.	ScienceDirect	125(36.9%)	134(39.5%)	65(19.2%)	15(4.4%)	3.1	Agree
24.	SHAMELA	78(23.0%)	135(39.8%)	120(35.4%)	6(1.8%)	2.8	Agree
25.	Springer	74(21.8%)	149(43.9%)	102(30.1%)	14(4.1%)	2.8	Agree
26.	Others	87(25.7%)	53(15.6%)	187(55.2%)	12(3.5%)	2.6	Agree

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Based on the overall findings, Table 2 shows that with a mean score of 2.5 as the baseline, databases scoring above this threshold such as ScienceDirect (3.1), Proquest (3.0), and EBSCOHOST (3.0) demonstrate high user satisfaction and availability. These databases are seen as widely accessible and reliable for academic and research purposes, with a majority of undergraduate students agreeing on their availability. On the other hand, databases scoring below 2.5, like Sage (1.9), AGRICULA (2.1), and MEDLINE (2.3), show lower levels of satisfaction and availability, highlighting the need for improvements in content, accessibility, or user experience. Most databases hover around the 2.5 mark, indicating moderate satisfaction and usability for students.

This suggests that students' awareness of the availability of electronic databases in university libraries in Kano State has significantly increased. The study supports the findings of Wickramasinghe and Raza (2021), who noted that the availability and awareness of databases can be influenced by the interest and exposure students have to these resources, and that positive perceptions encourage their usage. Additionally, it aligns with the views of Prangya and Rabindra (2013), who emphasized that availability and awareness are fundamental to the

effective use of electronic information resources.

Perception of Undergraduate Students Towards the Use of Electronic Databases

The respondents were asked to indicate their perception towards the use of electronic databases. The summary of their findings is in Table 3.

Table 3: Perception of Undergraduate Students Towards the Use of Electronic Databases

S/N	STATEMENT	SA	A	D	SD	X	Remark
•	I understand that electronic database is a product of technological innovation for library services	220 (64.9%)	101 (29.8%)	15 (4.5%)	3 (0.9%)	3.8	Agree
•	I Use Electronic Databases through the University's internet service	109 (32.2%)	156 (46.0%)	59 (17.4%)	15 (4.4%)	3.2	Agree
•	Using electronic databases provides me with adequate information that improves my academic performance.	184 (54.3%)	105 (31.0%)	50 (14.7%)	0 (0.0%)	3.7	Agree
•	I feel electronic databases will enhance the easy retrieval of information resources	214 (63.1%)	104 (30.7%)	21 (6.2%)	0 (0.0%)	3.8	Agree
•	I feel electronic databases will provide me with relevant and adequate information	208 (61.4%)	107 (31.6%)	24 (7.1%)	0 (0.0%)	3.7	Agree
•	I feel using electronic databases saves me time	202 (59.6%)	107 (31.6%)	27 (8.0%)	3 (0.9%)	3.7	Agree
•	Using electronic databases is expensive and requires a a lot of mental effort.	126 (37.6%)	115 (33.9%)	92 (27.1%)	6 (1.8%)	3.1	Agree
•	The state of facilities in the university library discourages me from using the electronic databases.	91 (26.8%)	80 (23.6%)	141 (41.5%)	27 (8.0%)	2.7	Agree
•	I feel using electronic databases improves my academic performance	216 (63.7%)	78 (23.0%)	42 (12.3%)	3 (0.9%)	3.7	Agree

Table 3, reveals that the weighted mean analysis of the statements regarding electronic databases shows a largely positive perception among respondents. The highest mean score of

(3.8) was associated with the statement that recognized electronic databases as products of technological innovation for library services, indicating a strong awareness of their value in academic work. Statements emphasizing the role of these databases in enhancing academic performance also received high scores (3.7 and 3.7), demonstrating that students appreciate the positive impact these resources have on their studies. The ease of retrieving information using electronic databases was well-rated as well, with a mean score of (3.8), indicating efficiency and user satisfaction.

On the other hand, some concerns were noted regarding the cost and mental effort required to use electronic databases, which received a mean score of (3.1). While these challenges are acknowledged, they do not significantly discourage students from using the databases, as seen by the lower mean score of (2.7) regarding the state of university library facilities. Overall, the findings suggest that students are satisfied with the availability and academic benefits of electronic databases, although improvements in library infrastructure and user experience could further enhance their effectiveness.

This finding could be attributed to the submission of Salleh (2012) who pointed out that perception encourages the users to utilize library resources. To buttress this point Spiro (2017) also justified that to perceive something, one must first be knowledgeable of it.

Conclusion

In conclusion, the study highlights that undergraduate students in Kano State perceive electronic databases positively and recognize their significance in enhancing academic performance. The availability of relevant databases, such as ScienceDirect, ProQuest, and EBSCOHOST, demonstrates adequate access to academic resources, although challenges remain regarding infrastructure and user experience. The perception of these databases is influenced by the students' awareness and familiarity with them, which contributes to their frequent use despite limited accessibility in some cases. The study establishes a strong correlation between positive perception and usage, confirming the importance of electronic databases in modern academic settings.

Recommendations

To improve access and usage, it is recommended that university libraries in Kano State invest in raising awareness of electronic databases through orientation programs and promotional campaigns. Additionally, enhancing the library infrastructure, particularly internet connectivity

and accessibility of databases, could mitigate current challenges and further encourage usage. Regular training sessions on database navigation and usage would also empower students to maximize the benefits of these resources. Lastly, increasing the diversity of available databases and ensuring 24/7 access can significantly enhance student engagement and academic outcomes.

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