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Perceived Usefulness and Users' Attitude as Correlate of Multimedia Resources Utilization in Nigerian University Libraries

Nijerya Üniversite Kütüphanelerinde Multimedya Kaynak Kullanımıyla İlişkili Olarak Algılanan Fayda ve Kullanıcı Tutumu

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Abstract

The study sought to evaluate perceived usefulness and users' attitude as a correlate of multimedia resources utilization by undergraduate students in selected university libraries in Kwara State. It is a quantitative research that adopted descriptive survey design of correlational type. The units of analysis consist of all undergraduates in the University of Ilorin, Kwara State University, Molete and Al-Hikma University, Adewole. The study used a questionnaire and observational checklist for data collection. Available multimedia resources in the surveyed university libraries include photographs, audio and video recordings, projectors, globes/maps/atlas, plasma television, computer, library management software, electronic information resources and internet connectivity. None of the three university libraries has an interactive smart board and only the University of Ilorin Library has filmstrips and microfilms/microfiches. Identified challenges militating against successful utilization of multimedia resources in the university libraries include epileptic power supply, out-datedness of available multimedia resources and poor internet connectivity. It was also found that there was a relationship between level of multimedia resources utilization and perceived usefulness of multimedia resources ($r=.65$, $p<.001$, $N=398$) with a moderate to strong positive relationship. More so, there was a relationship between level of multimedia resources utilization and students' attitude towards multimedia resources ($r=.58$, $p<.001$, $N=398$) with a moderate relationship. Librarians in charge of multimedia resources have a whole lot to contend with, ranging from ensuring information infrastructure to activating multimedia resources utilization are readily available, adhering to copyright laws and fair use guidelines while also maintaining access control. Greater effort also needs to be geared toward training and retraining of librarians because of the varying format of multimedia resources that require different skills of operation.

**The research and publication process of this article was carried out in accordance with "Research and Publication Ethics".*

Öz

Çalışma, Kwara Eyaletindeki seçilmiş üniversite kütüphanelerinde lisans öğrencileri tarafından multimedya kaynaklarının kullanımının bir korelasyonu olarak algılanan kullanışlılığı ve kullanıcıların tutumunu değerlendirmeyi amaçlamaktadır. Çalışma, ilişkisel tipte betimsel tarama desenini benimseyen nicel bir araştırmadır. Analiz birimleri, Ilorin Üniversitesi, Kwara Eyalet Üniversitesi, Molete ve Al-Hikma Üniversitesi, Adewole'deki tüm lisans öğrencilerinden oluşur. Çalışmada, veri toplama için bir anket ve gözlemsel kontrol listesi kullandı. Anket yapılan üniversite kütüphanelerinde mevcut multimedya kaynakları arasında fotoğraflar, ses ve video kayıtları, projektörler, küreler, haritalar, atlaslar, plazma televizyon, bilgisayar, kütüphane yönetim yazılımı, elektronik bilgi kaynakları ve internet bağlantısı bulunmaktadır. Üç üniversite kütüphanesinin hiçbirinde etkileşimli bir akıllı tahta yoktur ve yalnızca Ilorin Üniversitesi Kütüphanesi film şeritlerine ve mikrofilmlere/mikrofişlere sahiptir. Üniversite kütüphanelerinde multimedya kaynaklarının başarılı bir şekilde kullanılmasına engel olan zorluklar arasında epileptik güç kaynağı, mevcut multimedya kaynaklarının eski olması ve zayıf internet bağlantısı sayılabilir. Multimedya kaynaklarının kullanım düzeyi ile multimedya kaynaklarının algılanan kullanışlılığı ($r=.65$, $p<.001$, $N=398$) arasında ve derecesi de orta güçte bir pozitif ilişki olarak bulunmuştur. Ayrıca, multimedya kaynaklarının kullanım düzeyi ile öğrencilerin multimedya kaynaklarına yönelik tutumları ($r=.58$, $p<.001$, $N=398$) arasında da orta düzeyde bir ilişki bulunmuştur. Multimedya kaynaklarından sorumlu kütüphanecilerin, bilgi altyapısının sağlanmasından multimedya kaynaklarının kullanımının etkinleştirilmesine, telif hakkı yasalarına ve adil kullanım yönergelerine bağlı kalmasına ve aynı zamanda erişim kontrolünü sürdürmesine kadar mücadele etmesi gereken çok şey vardır. Farklı çalışma becerileri gerektiren multimedya kaynaklarının değişen formatları nedeniyle, kütüphanecilerin eğitimi ve eğitimin yenilenmesi için daha fazla çaba gösterilmesi gerekmektedir.

1. Introduction

There is no way to overstate the importance of libraries in academic settings. This is due to the university library's positioning as the institution's intellectual center and knowledge hub. The university library has a mandate that, in essence, is to meet the informational needs of faculty members, other personnel, researchers, and students. Hence, the university library must stock a variety of information resources, including both print and non-print materials, in order to meet the information needs of the different user categories. Multimedia resources, which include non-print materials like computer files (in the form of word documents, portable document formats (PDF), web content, etc.), maps, atlases, globes, audio-visuals, filmstrips, microforms, slides, photographs, and motion pictures, make up a significant portion of library collections. Text, photos, graphics, audio, video, and animation are all components of multimedia resources, which combine them to digitally process and store information (Bakhshi, 2013). In the library, the concept of multimedia resources is used in contrast to traditional forms of print materials, where organized materials are not limited to textual resources alone.

The advent of multimedia resources spurs a revolution that causes information technology to be incorporated into library services (Ashikuzzaman, 2017). Modern technology creates multimedia materials, some of which need special hardware to operate, and university libraries have long acquired them to improve teaching and learning. Information and communication technology has drastically changed practically every field and facet of human activity, making it one of the greatest human inventions. Included in this are library services, which are currently focused on automating repetitive processes and digitizing information resources (Oyedokun et al., 2018). The progression of multimedia resources is enormous in its magnitude, pervasiveness, and usefulness because of its high information-carrying capacity, tremendous processing speed, and communication capacities that embrace both visual and audio features.

In today's information age and knowledge society, effective ICT-based learning seems impossible in the absence of ICT-based instructional materials (Anyim, 2018). In the university library environment of today, efforts are being geared toward meeting the information needs of users who are technology savvy, with consideration for this centered on the use of multimedia resources. Multimedia resources add a new dimension to the learning experience of users because they are presented in the form of text and accomplished with images and aesthetic features that enhance understanding. In light of the perceived usefulness of library multimedia resources, Shah and Khan (2015) emphasized that the use of multimedia tools has been shown to positively affect university teaching and learning. Multimedia resources contribute to effective learning through the expansion and improvement of access to

information. Succinctly, multimedia resources activate distance learning and remote users' access to information.

Aside from the perceived usefulness of multimedia resources, users' attitudes are also related to their utilization. Attitude is a factor that determines whether or not to make use of something. It is a cognitive and unbiased state of readiness put into order through experiences that exert a directive or control on responses to events, occurrences, or situations with which it is related. An individual's views, sentiments, emotions, or intentional behaviors reflect their attitudes toward certain things, events, or programs. Users' attitudes in this context reflect their feelings about how they feel about using multimedia resources, whether positively or negatively. The researchers make the assumption that while a negative attitude would deter students from using multimedia resources, a positive attitude would encourage them to do so. This study sought to evaluate perceived usefulness and users' attitudes as a correlate of multimedia resource utilization by undergraduate students in selected universities in Kwara State.

1.1. Statement of the Research Problem

Traditional regular library services may not be so effective in today's information age, especially now that users are becoming technology savvy, hence the need for the deployment of multimedia resources to activate the sensory effect of today's modern way of teaching and learning (Anyim, 2018). University libraries have invested so much in making multimedia resources available to users. However, it should be noted that the perceived usefulness of multimedia resources and the positive attitude of the users towards those resources influence their level of utilization. But despite the importance of multimedia resources in the library, there are reports that they are not optimally utilized by library users (Aina & Adekanye, 2013; Ashaver & Igyuve, 2013; Mathew & Alidmat, 2013). The reason may be because students have negative attitudes toward these resources (Oyewole & Adetimirin, 2015). Furthermore, it was observed that limited research is available that focuses on examining perceived usefulness and attitude as a correlate of multimedia resource utilization, and this study is one of the few of its kind specifically in Kwara State, Nigeria. This is the knowledge gap this study intends to fill.

1.1.1. Research Questions

The study answered the following research questions:

1. What multimedia resources are readily available in the selected university libraries in Kwara State?
2. What is the perceived usefulness of multimedia resources by undergraduates in university libraries in Kwara State?
3. What attitudes do undergraduates have towards multimedia resources utilization in university libraries in Kwara State?
4. To what extent do undergraduates utilize multimedia resources in university libraries in Kwara State?
5. What are the challenges undergraduates encountered when using multimedia resources in university libraries in Kwara State?

1.1.2. Hypotheses

For test of hypothesis, the relationship between perceived usefulness, users' attitude and utilization of multimedia resources in the libraries under survey were correlated using Pearson correlation co-efficient. This study tests the following hypotheses:

1. H_{01} There is no significant relationship between the perceived usefulness of multimedia resources and utilization of multimedia resources by undergraduates in university libraries in Kwara State.
2. H_{02} There is no significant relationship between the attitude of undergraduates and the utilization of multimedia resources in university libraries in Kwara State.

2. Literature Review

The primary goal of university libraries is to offer materials and services that will make it easier for their parent institutions to achieve their objectives. In other words, they gather, arrange, preserve, and communicate written and unwritten information that is deemed essential for the learning, instructing, and researching activities of the students, faculty, and other staff at their parent institutions. To describe it simply, these are libraries that preserve a sizable collection of in-depth study resources for lecturers, researchers, and students in undergraduate and postgraduate programs. In the non-print category of information resources, there are multimedia information sources that don't use paper to convey information (Vogler, 2012).

Leveraging multimedia resources is mostly done so that users can receive information in a way that facilitates greater comprehension. Multimedia resources are an essential resource for assisting student learning. According to Ashaver and Igyuve (2013), multimedia resources are those that communicate information through the senses of sight, sound, or a mix of senses rather than relying primarily on reading to convey meaning. Multimedia resources are considered educational tools as well as a veritable method of teaching that form part of library collections (Aina & Adekanye, 2013). In common usage, multimedia resources are electronically delivered information that combines one or more media features that include video, image, audio, graphic, animation, and text in such a way that the content is accessible interactively.

Multimedia resources are part of the library collection, especially in university libraries where they constitute veritable tools for teaching and learning. It is an aftermath of advancements in information technology, some of which require special apparatus to operate and cost libraries a huge amount of money to acquire. Ebere (2012) argued that multimedia resources could engage and thrill academically brilliant students and also help average students with verbal images for better subject comprehension. However, university libraries ought to make it a matter of necessity to make multimedia resources available, as it is in their mandate to make information resources available to users in a format most convenient to them. Multimedia resources ought to be made readily available and accessible, especially within easy reach of users. Innovation revolutionized the ways and manners in which users learn, and a sequel to this paradigm shift in learning patterns serves as a hallmark for multimedia resource utilization in the library. Using multimedia resources encourages critical thinking and aids in information retention for learners. Wahlig (2012) stated that multimedia resources broaden textual information with graphical representations.

Whether positive or negative, attitudes affect actions or reactions toward change. Negative attitudes toward multimedia resources could be a deterrent to their utilization. Sivathaasan, Murugathas, and Chandrasekar (2014) defined attitude as "inclinations and feelings, prejudices or biased preconceived notions, ideas, fears, and conventions toward the event, occurrence, or new paradigm." Through life experiences, people develop attitudes and interest that shape how they interact with other people, professions, items, issues, and situations that are relevant to them. It is a forerunner of behavior and can range from favorable to unfavorable to neutral. Attitude guides behavior and refers to the way an individual responds to and is disposed towards an object (Soibamcha & Pandey, 2016). Students' attitudes are considered a major predictor of the use of multimedia. Users’ attitude toward multimedia involves their mental outlook on the object being evaluated. This expresses their views on the benefits and drawbacks of using multimedia technologies, as well as their apprehension about the difficulties they may face in the process. The extent to which multimedia resources are used depends on students' attitudes toward them, regardless of how advanced and efficient they are.

Despite the usefulness of multimedia resources, there are some challenges in their utilization that have a significant impact on their management due to their varying formats, which necessitate different preservation and conservation techniques. More so, there are issues with the acquisition of supporting hardware and software, information infrastructure requirements, copyright and fair use doctrine, controlled access, and many more (Ashikuzzaman, 2021). The cost of obtaining and maintaining multimedia resources is so high that it is becoming practically impossible for most university libraries to either purchase or maintain these resources, yet libraries are not profit-oriented organizations and depend on whatever funds are allocated to them. Most often, just a few numbers are obtained, which

may not be sufficient for users. Draconian budget cuts to libraries have a negative impact on the expansion of their services and collections, and the entire library system suffers from widespread decadence and neglect. To manage the sparse number of multimedia resources that are available in the library, there are frequently severe shortages of trained personnel. Effective use of multimedia resources is also hindered by a lack of institutional support and innovation incentives.

The degree to which a person thinks that employing a system will help him or her meet needs or solve problems is known as perceived usefulness. Users may perceive that a system is valuable while also feeling that it is challenging to use. The trustworthiness, extent, currency, and quality of multimedia resources are all factors in their perceived utility, along with their elements, types, and categories. The user's intention to use the multimedia resources will also be influenced by these ideas (Matusiak, 2012). Another important construct is the attitude of users toward the use of multimedia resources; the usage level is enough to predict the users' attitude toward it, whether positive or negative.

2.1. Empirical Studies

The relevant empirical research was reviewed in this section of the literature. Noteworthy is Aramide and Bolarinwa's (2010) study of the availability and use of multimedia and electronic resources by distance learning students in Nigerian universities. They found that the institution offers video recordings, posters, charts, electronic databases, email, audio recordings, pictures, radio, and television, as well as multimedia projectors, e-documents, CD-ROMs, computers, phones, printers, and digital cameras. According to the report, the main obstacles to the use of multimedia and electronic resources include epileptic power supplies, shoddy information infrastructure, a lack of skilled labor, excessive costs, and a lack of sufficient availability of multimedia resources. In a similar vein, Shamsideen's (2016) investigation examines the impact of audiovisual aids used in virtual learning and how they compare to traditional methods of instruction. The results demonstrated that audiovisual aids had a significant impact on the educational process in various literacy centers.

The use of multimedia resources for library services at colleges of education in Lagos State, Nigeria, was surveyed by Aina and Adekanye (2013), and the results showed that respondents believed that multimedia resources had a significant impact on teaching and learning. The majority of respondents, with mean scores of 2.48 and 2.43, attested to the fact that multimedia resources would significantly raise academic standards and benefit learners, respectively. The usage of multimedia resources was found to be significantly hampered by insufficient financing, unskilled labor, a lack of oversight, an erratic electricity supply, and insufficient government support. Similar to this, Ashaver and Igyuve (2013) investigated the usage of multimedia materials in Benue State's colleges of education. According to the research, only 51% of college students utilize multimedia resources occasionally, 26% never use or have never used audiovisual materials, and 23% frequently use audiovisual resources. The utilization of multimedia resources in the college is hampered by a lack of adequate resources, a lack of supporting infrastructure, and human concerns. Furthermore, the college library's librarians' familiarity with multimedia resources is not very noteworthy.

Literature has it that students had limited access to multimedia resources, yet they perceived that these resources had a significant effect on teaching and learning. It was well documented in the literature that students have a positive attitude towards the use of multimedia resources. However, it can be deduced from the literature reviewed that limited studies focus on perceived usefulness and attitude as a correlate of undergraduates' use of multimedia resources in the library. This empirical gap is what the current study tends to bridge.

3. Methodology

This section describes the research methodology used to conduct the study. It employs a quantitative research methodology and a descriptive survey design of the correlational type. All undergraduates at the University of Ilorin, Kwara State University, and Al-Hikma University make up the units of analysis. The University of Ilorin, Kwara State University, and Al-Hikma University had a total of 66,142 undergraduate students as of the 2020/2021 academic session, according to the report of the Academic Planning Unit of the aforementioned universities. The numbers were 49.987, 10.942, and 5.213, respectively. Because the target population is varied, stratified random sampling was chosen as

the sampling technique for this study. On this note, the researchers grouped the targeted population with undergraduate students' branches of knowledge because of the difficulties posed by the proliferation of different faculties and colleges in the surveyed universities. From the total population of undergraduate students at the three selected universities, which stood at 66.142, the researcher determines the sample size using the real sample size determination table that suggests 398 sample sizes for 100,000 populations (Israel, 2003). The sample size was allocated proportionately to each university's undergraduate student population, i.e., 301, 66, and 31 participants from the University of Ilorin, Kwara State University, and Al-Hikma University, respectively. Ethics committee approval was received for this study from the University of Ilorin Ethical Committee with the document dated 14.01.2022 and numbered 254/Ethics/2022.

An observational checklist and questionnaire were the instruments used to collect data, and they were validated by three research specialists from the University of Ilorin's Department of Library and Information Science. The researchers tested the reliability of the questions used for data collection by giving 30 copies of them to undergraduate students at Landmark University in Omu-Aran, Kwara State, Nigeria. They used the split-half odd number method to calculate the reliability coefficient of the instrument, and the Cronbach Alpha resulted in a reliability coefficient of 0.78, which was regarded as reliable for subsequent administration of the instrument. The researchers self-administered the data collection instrument to the respondents in their classrooms. Descriptive statistics, including frequency counts, percentages, and mean scores, were utilized to assess the data obtained for the study, and the Pearson product moment correlation (PPMC) was employed to test the two study hypotheses.

4. Analysis of Data and Interpretation

The analysis and interpretation of data from a survey of 398 undergraduate students of selected three universities in Kwara state; University of Ilorin, Kwara State University and Al-Hikmal University, is presented. All administered questionnaires were returned representing a 100% response rate. Collected data was subject to statistical analysis using frequency count and percentage of descriptive statistics as well as Pearson ranking correlation for the test of hypotheses.

Table 1

Demographic Characteristic of the Respondents

	Frequency	**Percentage (%)**
Institutions:		
University of Ilorin	301	75.63
Kwara State University	66	16.58
Al-Hikma University	31	7.79
Total	**398**	**100**
Respondents' Areas of Studies:		
Art and Humanities	57	14.32
Education	78	19.60
Engineering and Technology	70	17.59
Medical and Clinical Sciences	25	6.28
Pure Science	79	19.85
Social and Management Sciences	89	22.36
Total	**398**	**100**
Level:		
100 Level	68	17.1
200 Level	37	9.3
300 Level	180	45.2
400 Level	94	23.6

500 Level	19	4.8
Total	**398**	**100**
Gender:		
Male	229	57.5
Female	169	42.7
Total	**398**	**100**
Age Bracket:		
15-20	113	28.4
21-25	136	34.2
26-30	117	29.4
31 and Above	32	8.0
Total	**398**	**100**

Table 1 presents the demographic characteristics of the respondents. On the distribution of respondents, most respondents are from the University of Ilorin, with 301 (75.63%) respondents, followed by 66 (16.58%) respondents from Kwara State University, and Al-Hikmah University has 31 (7.79%) respondents. The University of Ilorin is federally owned, and it has the highest number of undergraduate students, which is why it has the highest number of participants. Because of differences in faculties and colleges among the three surveyed universities, undergraduate students are grouped under six branches of knowledge in relation to various fields of study. Undergraduate students studying social and management sciences had the highest number of participants (89 (22.36%), followed by pure sciences (79 (19.85%) and education (78 (19.60%).The fewest number of participants come from medical and clinical sciences, with 25 (6.28%), followed by arts and humanities with 57 (14.32%) and engineering and technology with 70 (17.59%).

The majority of respondents are at the 300 level of their academic program, with 180 (45.2%) representatives, followed by the 400 level with 94 (23.6%), the 100 level with 68 (17.1%), and the 500 level with 19 (4.8%). Male participants make up the majority, with 229 (57.5%), while female participants make up the minority, with 169 (42.7%) respondents. On the age of respondents, the majority of participants fall within the age range of 21–25 with 136 (34.2%), followed by the age range of 26–30 with 117 (29.5%), and the age range of 15–20 with 113 (28.0%). Participants aged 31 and up make up the smallest group, accounting for 32 (8%).

Table 2

Available Multimedia Resources in Surveyed University Libraries

S/N	Multimedia Resource	University of Ilorin Library	Kwara State University Library	Al-Hikma University Library
1	Photographs	√	√	√
2	Filmstrips	√		
3	Audio Recordings	√	√	√
4	Video Recordings	√	√	√
5	Projectors	√	√	√
6	Globe, Maps and Atlas	√	√	√
7	Smart/Android/Plasma Television	√	√	√
8	Computer	√	√	√
9	Library Management Software	√	√	√
10	Electronic Information Resources	√	√	√
11	Microfilm and Microfiches	√		
12	Internet Connectivity	√	√	√
13	Interactive Smart Board			

Table 2 presents the result of the observational checklist on multimedia resources that are available in the selected university libraries in Kwara State. Multimedia resources such as photographs, audio and video recordings, projectors, globes, maps, and atlases, plasma televisions, computers, library management software, electronic information resources, and internet connectivity are readily available in the three surveyed university libraries. None of the three university libraries has an interactive smart board, and only the University of Ilorin Library has filmstrips, microfilms, and microfiche. The University of Ilorin Library seems to be more sufficient in terms of available multimedia resources than the other two university libraries. The reason for this has to do with the fact that the University of Ilorin is owned by the federal government of Nigeria; therefore, it has more access to funding than the other two universities, which are owned by the state government and individuals. More so, the long age of the university—one of the second generations of universities established in the country in 1975—also accounted for its robust and elaborate multimedia collections.

Table 3

Perceived Usefulness of Multimedia Resources

S/N	Statement	Strongly Agree	Agree	Disagree	Strongly Disagree	Mean
1	Using multimedia resources enables me to accomplish learning goals more quickly.	147(36.9)	203(51)	38(9.5)	10(2.5)	3.22
2	Globe, maps and atlases serve as a geographical information system.	139(34.9)	182(45.7)	77(19.3)	0	3.16
3	With multimedia resources, information is communicated verbally and visually.	135(33.9)	236(59.3)	27(6.8)	0	3.27
4	Interactive smart board and plasma television is a better instructional tool for library guide, display, and publicity.	116(29.1)	231(58)	41(10.3)	10(2.5)	3.14
5	Interactive access to information resources is enhanced.	113(28.4)	264(66.3)	21(5.3)	0	3.23
6	Multimedia resources serve well as information banks and storage.	93(23.4)	265(66.6)	20(10.1)	0	3.03
7	Multimedia resources enable the integration of multiple forms of information content.	153(38.4)	199(50)	46(11.6)	0	3.27
8	Multimedia resources are useful to me in my academic career.	143((35.9)	234(58.8)	10(2.5)	11(2.8)	3.28
	Average Mean Score					**3.08**

Table 3 presents the level of perceived usefulness of multimedia resources. The average mean benchmark recorded is (X = 3.08), and seven out of the eight variables used in measuring perceived usefulness score are above the average mean benchmark. Multimedia resources are useful to me in my academic career and scored the highest mean score of (X = 3.28), followed closely by multimedia resources that enable integration of multiple forms of information content with a mean score of (X = 3.27), and information is communicated verbally and visually with a mean score of (X = 3.27). Interactive access to information resources is enhanced and has a mean score of (X = 3.23), followed by using multimedia resources to enable me to accomplish learning goals more quickly with a mean score of (X = 3.22); globes, maps, and atlases serve as geographical information systems and have a mean score of (X = 3.16); and an interactive smart board and plasma television are better instructional tools for library guide, display, and publicity with a mean score of (3.14). Only multimedia resources

perform well as information banks and storage, with a mean score (X = 3.03) that is slightly lower than the average mean benchmark.

Table 4

Student Attitude toward the Use of Multimedia Resources

S/N	Statement	Strongly Agree	Agree	Disagree	Strongly Disagree	Mean
1	Learning is more interesting with the use of multimedia resources.	204(51.3)	140(35.2)	27(6.8)	27(6.8)	3.31
2	I'm confident using multimedia resources.	140(35.2)	210(52.8)	48(12.1)	0	3.23
3	I am motivated to explore more when using multimedia resources.	121(30.4)	170(42.7)	88(22.1)	19(4.8)	2.99
4	Because of the difficulty I encountered while using multimedia resources, I have a negative attitude towards multimedia resources.	10(2.5)	42(10.6)	297(74.6)	49(12.3)	2.03
5	With the benefit I derived from using multimedia resources, I have a positive attitude towards multimedia resources.	133(33.4)	224(56.3)	31(7.8)	10(2.5)	3.21
	Average Mean Score					**2.95**

Table 4 presents users' attitudes toward the use of multimedia resources in the university library. The average mean benchmark recorded is (X = 2.95), and four out of the five variables used in measuring the user's attitude scored above the average mean benchmark. Learning is more interesting with the use of multimedia resources that have the highest mean score (X = 3.31), followed by "I'm confident using multimedia resources with a mean score of (X = 3.23), "I have a positive attitude towards the use of multimedia resources with a mean score (X = 3.21), and "I am motivated to explore more when using multimedia resources with a mean score of (X = 2.99"). Because of the difficulty I encountered while using multimedia resources, I have negative attitudes towards multimedia resources, with a mean score (X = 2.03) that scored below the average mean benchmark. Overall, what the foregoing implies is that users have a positive attitude toward the use of multimedia resources.

Table 5

Extent of Multimedia Resources Utilization

S/N	Multimedia Resources	Daily	Weekly	Monthly	Never
1	Photographs	98(24.6)	104(26.1)	104(26.1)	120(30.2)
2	Audio Recording	178(44.7)	90(22.6)	10(2.5)	120(30.2)
3	Video Recording	190(47.7)	50(12.6)	48(12.1)	110(27.6)
4	Projector	62(15.6)	70(17.6)	154(38.7)	112(28.1)
5	Globes/Maps/Atlas	40(10.1)	102(25.6)	122(30.7)	134(33.7)
6	Smart/Plasma/ Android Television	167(42)	46(11.6)	60(15.1)	125(31.4)
7	Computer	210(52.8)	48(12.1)	108(27.1)	32(8)

8	Library Software	171(43)	129(32.4)	29(7.3)	69(17.3)
9	Electronic Information Resources	156(39.2)	69(17.3)	95(23.9)	78(19.6)
10	Internet Connectivity	232(58.3)	59(14.8)	38(9.5)	69(17.3)

Table 5 presents the extent of utilization of ten commonly available multimedia resources in the three selected university libraries in Kwara State. Multimedia resources most undergraduate students use daily in the library include the Internet, as affirmed by 232 (58.3%) of participants, followed by computers with 210 (52.8%), video recordings with 190 (27.7%), audio recordings with 178 (44.7%), library software with 171 (43%), smart/android/plasma television with 162 (42%), and electronic information resources, as confirmed by 156 (39.2%) respondents. Students also used library software (129, 32.9%), photographs (104, 26.1%), and globes, maps, and atlases (102, 25.6%) on a weekly basis. Similarly, 154 (38.7%) of undergraduate students used projectors on a monthly basis, followed by globes, maps, and atlases with 122 (30.7%), computers with 108 (27.1%), and photographs with 104 (26.1%). A significant number of respondents claimed they had never used multimedia, with globes, maps, and atlases leading the pack with 134 (33.7%), smart/android/plasma television trailing with 125 (31.4%), photographs trailing with 120 (30.2%), audio recordings trailing with 120 (30.2%), projectors trailing with 112 (28.1%), and video recordings trailing with 110 (27.6%).

Table 6

Challenges Encountered when Using Multimedia Resources

	Challenges	**Strongly Agree**	**Agree**	**Disagree**	**Strongly Disagree**	**Mean**
1	The problem of control access to multimedia resources.	84(21.1)	137(34.4)	155(38.9)	22(5.5)	2.71
2	Epileptic power supply	118(29.6)	182(45.7)	68(17.1)	30(7.5)	2.98
3	Poor internet connectivity	164(41.2)	173(43.5)	42(10.6)	19(4.8)	3.21
4	Available multimedia resources are obsolete.	186(46.7)	104(26.1)	89(22.4)	19(4.8)	3.15
5	Insufficient skills to use and handle multimedia resources.	49(12.3)	153(38.4)	156(39.2)	40(10.1)	2.53
6	Insufficient multimedia resources in the library	81(20.4)	115(28.9)	156(39.2)	46(11.6)	2.58
7	Insufficient technical support.	60(15.1)	251(63.1)	49(12.3)	38(9.5)	2.84
	Average Mean Score					**2.86**

Table 6 shows the challenges militating against effective utilization of multimedia resources; out of seven variables, only three variables score above the total mean score (TMS = 2.86); thus, poor internet connectivity has the highest mean score (X = 3.21) followed by availability of outdated multimedia resources with a mean score (X = 3.15) and epileptic power supply with a mean score (X = 2.98). Insufficient skills to use multimedia resources have the lowest mean score (X = 2.53), followed by insufficient multimedia resources in the library with a mean score (X = 2.58), the problem of controlling access to multimedia resources with a mean score (X = 2.71), and insufficient technical support with a mean score (X = 2.84).

Relationship between Perceived Usefulness and Utilization of Multimedia Resources by Undergraduates in University Libraries in Kwara State.

		Perceived Usefulness of Multimedia resources	Level of Multimedia Resources Utilization
Perceived Usefulness of Multimedia resources	Pearson Correlation	1	.65**
	Sig. (2-tailed)		.000
	N	398	398
Level of Multimedia Resources Utilization	Pearson Correlation	.65**	1
	Sig. (2-tailed)	.000	
	N	398	398

**. Correlation is significant at the 0.05 level (2-tailed).

The result of hypothesis testing on whether there is a significant relationship between the perceived usefulness of multimedia resources and the level of multimedia resource utilization among undergraduates in Kwara State The relationship was correlated using the Pearson correlation coefficient. The correlation coefficient (r) was positive at 0.65. Therefore, there was a statistically significant relationship at a ($P< 0.05$) value, so the null hypothesis was rejected. This implies that users' utilization of multimedia resources is associated with the perceived usefulness of multimedia resources.

Relationship between Users' Attitude and the Utilization of Multimedia Resources in University Libraries in Kwara State.

		Users Attitude Toward Multimedia	Level of Multimedia Utilization
Users Attitude Toward Multimedia	Pearson Correlation	1	.58**
	Sig. (2-tailed)		.000
	N	398	398
Level of Multimedia Utilization	Pearson Correlation	.58**	1
	Sig. (2-tailed)	.000	
	N	398	398

**. Correlation is significant at the 0.05 level (2-tailed).

The result of the second hypothesis was that the relationship between the attitudes of the user and the level of multimedia utilization was correlated using the Pearson correlation coefficient. The correlation coefficient (r) was positive at 0.58. Therefore, there was a significant relationship between students' attitudes and multimedia resource utilization ($P < 0.05$), so the null hypothesis was rejected.

5. Discussion of Findings

The result of findings on the availability of multimedia resources in the libraries under survey indicated that multimedia resource such as photographs, audio and video recordings, projectors, globes, maps, atlases, plasma televisions, computers, library management software, electronic information resources, and internet connectivity are among the multimedia resources that are readily available in the three surveyed university libraries. None of the three university libraries has an interactive smart board, and only the University of Ilorin Library has filmstrips, microfilms, and microfiche. This finding is consistent with Aramide and Bolarinwa's (2010) study on the accessibility and use of electronic and multimedia resources by distance learners in Nigerian universities, which found that the institution offers video recordings, posters, charts, electronic databases, email, audio and video recordings, pictures, radio, television, multimedia projectors, e-documents, Disc, computer systems, telephones, printers, and camcorders.

The findings on the perceived usefulness of multimedia resources revealed that multimedia resources are useful for academic purposes because interactive access to information and information content displayed in multiple forms increases learning productivity as students interact verbally and visually

with information systems. More so, smart, Android or Plasma television serves as an important tool for library display and publicity. Likewise, globes, maps, and atlases are important geographical information resources. This aligns with Shamsudeen's (2016) study of the use of audio-visual aids and their impact on learning. The report stated that the use of multimedia greatly influenced the teaching and learning process.

Given all of this, the report of findings indicates that users have a positive attitude toward the use of multimedia resources. The foregoing was in tandem with the Zaidiyen, Mei, and Fook (2010) study, which also reported users having a positive attitude toward the use of multimedia for learning.

From the thirteen initially listed multimedia resources, none of the three university libraries has an interactive smart board, and only the University of Ilorin Library has filmstrips and microfilm or microfiche. However, from the ten commonly available multimedia resources in the three selected universities in Kwara State, the majority of undergraduate students used the internet, computers, video recordings, audio recordings, library software, smart/android/plasma television, and electronic information resources daily. They used photographs, globes, maps, and atlases weekly and a projector monthly.

Among the many challenges that prevent effective use of multimedia resources are a poor internet connection, the antiquity of the available resources, and an epileptic power supply. Inadequate technical support for the correct operation of multimedia resources, the issue of controlled access, a lack of multimedia resources in the library, and inadequate handling skills are some significant problems that are less obvious but nonetheless exist. The foregoing is commensurate with the findings of other studies (such as Mashiyane, Bangani, & Deventer, 2020; Aina & Adekanye, 2013; Ashaver & Iguve, 2013; Aramid & Bolarinwa, 2010) that also indicated inadequate power supply, inadequate information infrastructure, lack of technical know-how, high cost of multimedia resources, lack of funding, and a dearth of multimedia resources in the library.

Finally, the results of the findings indicate that there is a positive and significant statistical relationship between the perceived usefulness of multimedia resources and users' level of utilization. More so, users' attitudes toward the use of multimedia resources are also associated with the level of multimedia utilization.

6. Conclusion

Multimedia resources are digital information in multiple forms of abstraction in a varying format that comprises of text, image, graphic, and audio-visual integrated media, processed, stored, and transmitted physically or digitally over the internet, which increases blended learning, users' engagement, and knowledge retention. Its management poses a great challenge to the library as it requires making available enabling information infrastructure that includes hardware and software, and more so, it requires different technical skills to manage and adapt different multimedia resources. But with the advent and convergence of information and communication technology, multimedia resources have become easy to integrate, put together, manipulate, store, and transmit. Multimedia resources are immense and pervasive in their usefulness because of their enormous information-carrying capacity, information processing speed, and two modes of communication that encompass visual and audio features. Despite the high cost of acquiring and managing multimedia resources in the library, their usefulness and users' positive attitude towards their utilization make them worthy of inclusion in library collections.

7. Recommendations

The successive recommendations emerge from the findings of the study:

1. Library administrators should ensure multimedia resources available in the library are modern and follow the current trend in information technology.
2. Librarians should endeavor to improve users' information literacy skills through training and library education on the effective use of multimedia resources.
3. Provision should also be made for wide-range internet connectivity.

4. The library should also be provided with adequate technical support.
5. Efforts need to be geared toward training and retraining librarians because of the varying formats of multimedia resources that require different skills to operate.
6. Better information infrastructures and facilities are needed to run multimedia technologies.
7. Regarding the nation's epileptic electricity supply, the government should declare a state of emergency.

Compliance with Ethical Standards

Conflict of Interest: The authors declare that there is no conflict of interest.

Ethics Committee Permission: Ethics committee approval was received for this study from the University of Ilorin Ethical Committee with the document dated 14.01.2022 and numbered 254/Ethics/2022.

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