



# INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

## Use of Print Information Resources by Undergraduate Students of Faculty of Agriculture Science University of Jos, Plateau State, Nigeria.

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### Abstract

This study seeks to investigate the use of print information resources by undergraduate students of Faculty of Agriculture Science University of Jos, Plateau State, Nigeria. The study highlights types of print information resources available for Agriculture Science undergraduate students' use, reasons for use, frequency of use, constraints to effective use and proffered suggestions to overcome the constraints to use of Print Information Resources in University of Jos Library. The study population was 680 which covers all undergraduate students of Faculty of Agriculture of which 68 were drawn from the population size using John Curry (1984) rule of thumb sample size method. The data was collected with the help of questionnaire and analyzed by simple statistical method and Hypotheses testing. According to the main findings of this research the undergraduate students seems to be very interested in using print information resources as it is one of their basic daily informational requirements because they use it for class assignments and to get updates about their related field. The main problems reported are excessive control/rules of library and inadequate current and relevant books. It is recommended that library rules should be flexible and undergraduate students should be provided with current and relevant books for faculty of Agriculture Science to satisfy their information quests.

**Key words:** academic library, print information resources, undergraduate students, uses, challenges, Nigeria.

## 1. Introduction

Academic libraries are integral part of the parent institutions they are located. They are the hubs of information resources for undergraduate students and all other library patrons outside and within the university community. These information resources are numerous and diverse to satisfy the diverse library patrons' information quests but are in two main formats namely: print information resources which refer to traditional information such as printed books and print journals (Zha, Zhang, and Yan, 2014). The information content is printed on paper using ink and bound together in book forms like textbooks. Some such as journals, pamphlet, magazines e.t.c are not in form of books. The second format is the electronic formats which are digitized prints information resources, stored in electronic system and accessed with the help of computers. They are fast, easy, link patrons to other information sources, different users can simultaneously access them and not restricted by geographical location. They include e-books, e-journals, databases e.t.c. In every academic library in the world, the efficiency and effectiveness of services rendered is a measure of the relevant information resources (whether prints or electronic formats) available, organized and managed for library patrons use. These information resources include print, non-print and electronic information resources. It is mandatory for Libraries to acquire information resources to cater for all categories of library users (examples: students which undergraduate students, post-graduate students; lecturers, non-teaching staff and the entire community) irrespective of their background and information resources formats. Reitz (2004) posits academic library as an integral part of a college, university or other institution of post-secondary education which is established to provide information resources and services to support learning, teaching and research needs of students, faculty and staff. Weiner (2005) quips that responsiveness to students and faculty needs, quality of service, and resilience is the hallmark of academic libraries. The university library cannot survive without acquiring diverse information resources in either of the two main formats stated above for her undergraduate students as it helps in teaching, learning and research works. Abubakar (2011) assertion that academic libraries are at the forefront of providing information services to their respective communities which comprise of students, lecturers, and researchers to support teaching, learning and research corroborates the above fact.

The largest category of university library users are the undergraduate students. They require diverse information resources from their respective libraries as they have diverse information needs to satisfy. They trust and rely mainly on the university library to get their information resources from the necessary information sources but with different information seeking behavior. Due to the above facts, undergraduate students need adequate, relevant and current print information resources for excellence in their academic pursue and other benefits. To support this fact, Oyewusi and Oyeboade (2009) pointed out that "faculty members and students have realized that the libraries have great roles to play in the provision of information necessary for their day-to-day research." Students also need information for Assignment, project writing, research e.t.c. This conforms with the words of Olubiyo, Jato and Ogunniyi, (2011) that students need to conduct research, write notes, assignment, term papers, and do presentations as such they need information.

According to Stacy (2008) historically, the introduction of printing was revolutionary in its impact. Bastek (2012) view Print as a pioneer of mass distribution of information and medium of communication like no other. In the same vein, Okon (2013) stated that for centuries, printed resources have been a major carrier of information accessible and utilized for teaching, learning and research in universities. As such, print resources have served as a vital avenue for the dissemination of scholarly information to the global society. Furthermore, Oyewusi and Oyeboade (2009) pointed that, even though library users may make limited use of library resources; they continue to trust libraries as reliable source of information for their academic pursuits. This implies even though electronic information resources may be gaining lots of support or even preferred by some library patrons due to its numerous advantages, some scholars and library patrons still trust in print information resources. This is supported by MacColl (2010) assertion that print materials were still in use because of portability value, and relative ease of access and use. Also, Wang and Hwang (2004) assert that conventional library resources (printed) still provide support to learning; they improve library collection, reference services and this necessitates the need to provide

spaces and facilities for their use in the library. Other advantages of Print materials are: provision of an awareness of material culture, history, and durability in ways that remain elusive for digital materials for academic work.

But Print materials impose physical limitations on access as undergraduate students and other library users must come to the library in person to get the books of their choice from the open shelves/stacks. This also takes so much time of the students especially in a densely populated campus with so many undergraduate students. These days, libraries are constrained by space as libraries spaces are used for lectures, exhibition, ICT laboratories among others. The book stacks which displays print information resources take up much space in the library. Also, print information contents are difficult to analyze in depth. In addition, cost of production is on the increase amidst shrill budget allocation e.t.c. This is in line with Ke and Chang (1999) observation that in recent years, academic libraries face pressures like diminished budgets, increased patron demands, and rising costs for book purchases and periodical subscriptions. This has made many library administrators to think alternative measure to address the situation and has led to digitization of the library print information resources. These digitized forms which are usually viewed with the use of internet in electronic forms such as e-books, e-journals e.t.c are sought after by some undergraduate students due to their fast and easy accessibility thereby neglecting the print information resources. This view is supported by Bandyopadhyay and Chu (1999) opined that the traditional print resources nowadays face challenges from their electronic counterparts in faster and timely delivery of information as well as in improved access and Bamidele et al., (2013) assertion that the use of print journals is drastically reducing among undergraduate students in some higher institution of learning. Rubin (2000) posits that the rapid development of ICT coupled with electronic publishing threatens the hitherto unparallel dominance of the printed format in terms of access as the electronic format is proving to be dynamic in enhancing easy access even from remote areas far removed from the physical library.

Bamidele et al., (2013) asserted that the use of print journals is drastically reducing among undergraduate students in some higher institution of learning. Prints information resources need to be saved from going into extinction as posited by many scholars. This view is supported by Cumaoglu, Sacici and Torun (2013) who have rightly observed that in this age most printed resources are being supplanted with electronic version and the propensities identified with daily paper, magazine, course material and book reading have experienced changes. Thus, the habits of some lecturers and the current crop of University students born in the 21st century further demonstrate this variance (Cumaoglu et al., 2013).

Robinson (2010) cleverly states that cutting print subscription is seen by many as an attractive and obvious solution to achieving immediate solutions, when these only addresses part of the problem.

Print has great potential, but this potential will not be realized through benign neglect. As a form, print offers benefits in learning and retaining information. As artifacts, print materials also offer a treasure trove of historical and cultural information that can only be accessed physically. For these reasons and others, printed materials have a bright future, but it is also a future that will be shared with other media that offer their own unique affordances (coined by Gibson-Oxford English Dictionary Online, n.d).

It is therefore imperative to conduct a study on use of print information resources by faculty of Agriculture Science undergraduate students at university of Jos, Nigeria.

### **Objective of the study**

The specific objective of the research is to investigate the use of print information resources by faculty of Agricultural Science Students University of Jos, Plateau State, Nigeria.

The general objectives are to:

1. investigate the types of Print Information Resources you have used at University of Jos Library
2. determine why you use the above Print Information Resources at University of Jos Library as students of Agricultural Science Faculty
3. determine the frequency of use of Print Information Resources at University of Jos Library

4. investigate the constraints/challenges that hinder your effective use of Print Information Resources in University of Jos Library?

5. determine the suggestions proffer to overcome the above-mentioned challenges that hinder your effective use of Print Information Resources in University of Jos Library.

### **Research Questions**

1. What are the types of Print Information Resources you have used at University of Jos Library?

2. Why do you use the Print Information Resources available at University of Jos Library?

3. How frequent do you use the Print Information Resources at University of Jos Library?

4. What are the constraints/challenges that hinder your effective use of Print Information Resources in University of Jos Library?

5. What are the ways/suggestions proffer to overcome the above mentioned /challenges that hinder your effective use of Print Information Resources in University of Jos Library?

### **Statement of the Problem**

Academic libraries being the repositories of knowledge are saddled with the acquisition of diverse information resources in both print and electronic formats to cater for the information needs of diverse information seekers of her community. These print information resources form part of the reasons why the library is regarded as the backbone of the parent institution. They are very important intellectual resources for library patrons' usage for maximum impact in their academics. Undergraduate students need to conduct research, write notes, assignment, term papers, and do presentations as such they need information (Olubiyo, Jato and Ogunniyi, 2011).

However, the acquisition of print information resources with huge amount does not still guarantee their adequate use by these categories of library information seekers who form two third of the population of library users. The future of print information resources is under threat by competition from the fast and speedy delivery electronic information resources and retrieval system which do not pose physical limitation as can be accessed from anywhere around the globe at convenience. This has made many undergraduate students to abandon the library open stacks which houses the print information resources. Other factors such relevance, currency, preference, poor awareness on how to browse the library open stacks/shelves by undergraduates, amongst others affect their effective use. It is therefore vital that irrespective of their background, undergraduate students get and easily access the right kind of information resources of their choices in University of Jos Library.

These researchers therefore seek to collect information on undergraduate students of Faculty of Agriculture, University of Jos experiences on use, challenges and proffer solutions for maximum use of the available print information resources in the Library.

### **Significance of the Study**

This study will help the University of Jos Library management know if she is meeting up with her main goal of users' satisfaction through relevant and up-to-date services via the acquired library print information resources.

The research will also be useful in proper accountability for budget allocation and planning for the acquisition of necessary print information resources for undergraduate students and other library clientele.

These findings if used will help bridge the gaps in areas where there are lapses and help library managers develop policy that will render adequate services so as to meet the expectations of her patrons.

This evidence-based research will assist librarians advertise the Library as information centre and her enormous print information resources to her patrons. The university of Jos Library management would be better informed on

what kind of print information resources are useful and in great demands by library patrons rather than acquiring information resources that are rarely consulted.

The result of this research would help expose the challenges undergraduate students face in utilizing the rich library print information resources and solutions proffer to help them. Collecting information on our users' experiences will help to improve our websites, digital resources, physical spaces, and print resources so we can make the library as useful and as usable as possible.

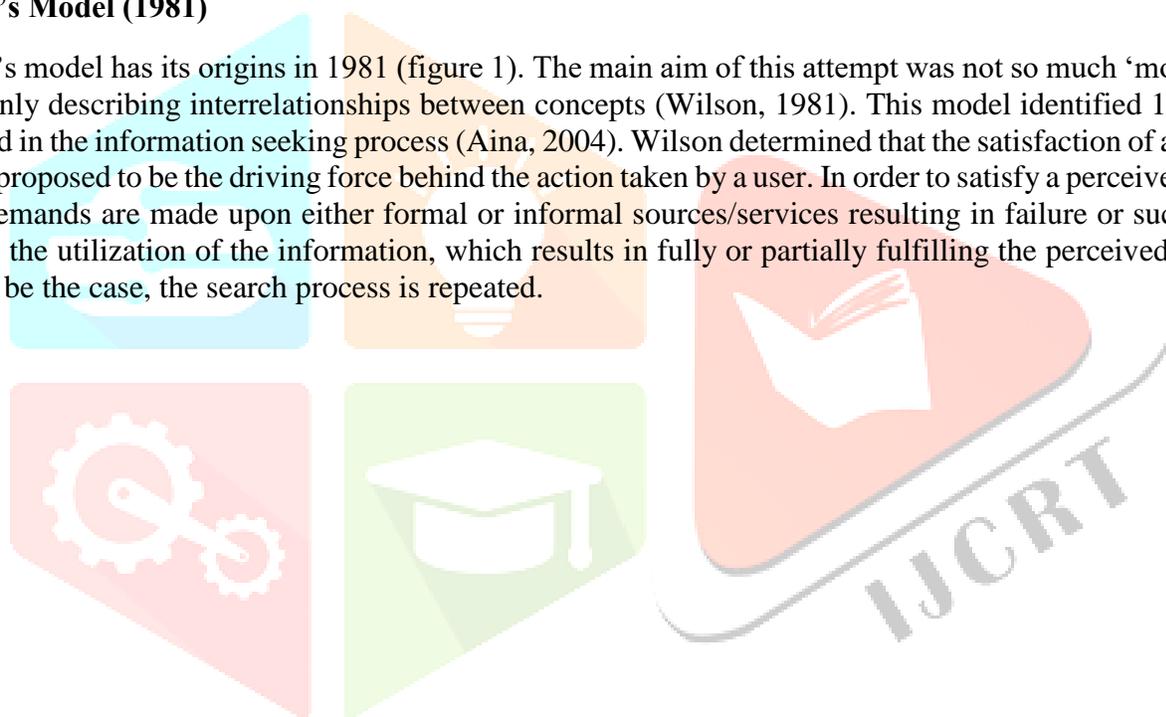
All the resources in the world mean very little if they cannot be accessed properly. Collecting information on our users' experiences will help to improve physical spaces, and print resources so we can make the library as useful and as usable as possible. Also, reasons for some information resources not being adequately utilized would be discovered and addressed accordingly so as to help engage our users.

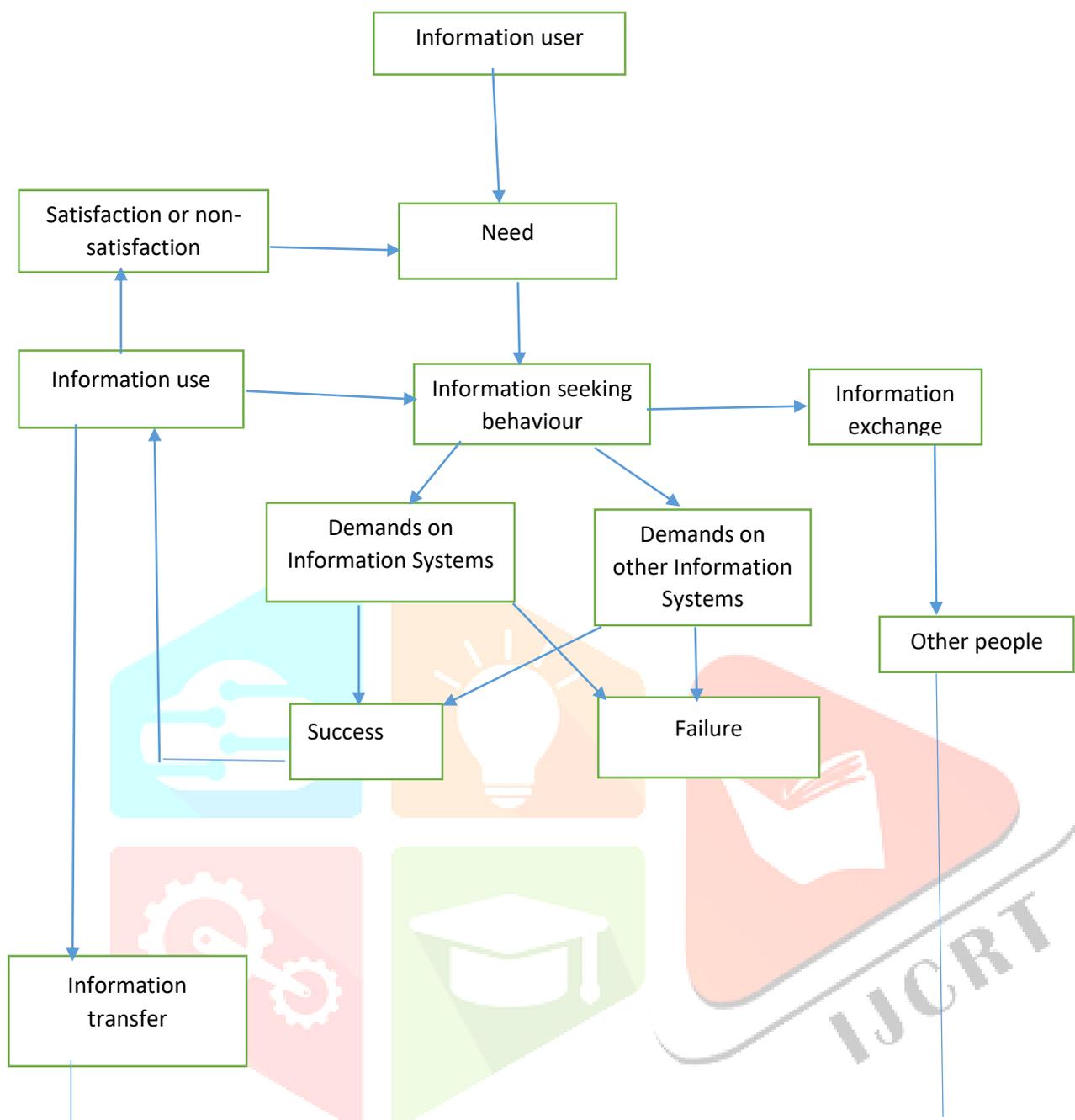
This work is a landmark study for other researchers to build on and shed more light on the above topic.

## **INFORMATION SEEKING BEHAVIOUR THEORY**

### **Wilson's Model (1981)**

Wilson's model has its origins in 1981 (figure 1). The main aim of this attempt was not so much 'model building', but mainly describing interrelationships between concepts (Wilson, 1981). This model identified 12 components involved in the information seeking process (Aina, 2004). Wilson determined that the satisfaction of an information need is proposed to be the driving force behind the action taken by a user. In order to satisfy a perceived information need, demands are made upon either formal or informal sources/services resulting in failure or success. Success leads to the utilization of the information, which results in fully or partially fulfilling the perceived need. Should this not be the case, the search process is repeated.





**Figure1: Wilsons model of information behavior (1981).**

### Literature review

There are lots of available literatures on use of print information resources by undergraduate students by scholars around the world.

Dickson (2006) in survey of undergraduate students reported that nine out of ten students were able to find needed books from their academic libraries while 70% of respondent used traditional printed resources. Respondents were also asked about access and utilization of some specific information resources; 89% reported agreed they usually find needed books and 88% for periodicals in academic libraries.

Biradar, Biradar, Kumar and Mahesh (2009) surveyed 101 undergraduate students use of information resources. They found that some respondents preferred printed information resources such as; books (43.56%), periodicals (27.72%), dictionaries (50.49%), yearbooks (44.55%), encyclopedia (40.59%) and directories (9.90%). This clearly indicated that printed information materials were still useful and patronized by undergraduate students.

Yamson, Appiah and Martins (2018) findings on electronic vs print resources showed that students had greater use for print than electronic information resources. The researchers asked additional questions pertinent to the information resource format that the respondents preferred to use for their academic work. The findings indicated that the majority 134(57.0%) of the respondents always preferred print resource formats for their academic work while 101(43%) occasionally preferred the electronic resource formats for academic work. This implies that the demand for print resources format is very high among central university undergraduate students. Furthermore, the researchers also attempted to discern why respondents used their preferred information resources. Among the answer choices included on the survey were: accessibility, completeness, ease of use, accuracy and currency. Majority of the respondents 118(50.2%) preferred print resources because of its accessibility, 107(45.3%) agreed that print resources was complete in itself, while 147(63.6%) asserted that they found it easy to use their preferred resources. In terms of accuracy majority of the respondents 115(48.9%) agreed print resources were more accurate than its counterpart. Participants in another study also report that print documents not only facilitate annotations, but also enable easier comparisons to be made among all gathered sources (Dilevko and Gottlieb, 2002). In corroboration, Marshall (1997) quipped that it is very likely that people will continue to print out electronic documents for annotation, even as they read materials in a digital library.

Mizhirachi(2015), who examined the undergraduates' format preferences between electronic and print when searching for their academic readings at the University of California in the US, used online questionnaire administered to 400 students. The study found that 67.7 percent of the respondents preferred print over electronic format for all courses, when they want to achieve or deeper learning outcome, while 18 percent preferred electronic resources. The results indicate that printed resources were still the mainstay of academic research despite the emergence of e-resources.

Marcum and George (2003) in a study of national information use survey of 3,234 faculty members, graduate students and undergraduates from 392 doctoral research universities (public and private) and private liberal arts colleges reported that 93.9% of the respondents of the combined group of all institution agreed strongly" or, moderately" that they were "comfortable retrieving and using information electronically" while at category level, the responses was 94.6% for undergraduates. Respondents were also asked if they were "comfortable locating and using print information." Those that expressed "agreed strongly" and moderately" (including undergraduate students) for print were 94.8% as against 93.9% for electronics. The print resources still impacted positively on patrons because it has standard and systematic approach to locating information established over the years.

Mizrachi's (2014) study also found similarities between the UK and US, where user preference for print over e-resources was more pronounced in both countries. The study recommended that attention should be paid to providing students with print format facilities instead of assuming that course material should always be converted into digital formats.

Participants in another study also report that print documents not only facilitate annotations, but also enable easier comparisons to be made among all gathered sources (Dilevko and Gottlieb, 2002). Marshall (1997) notes that "support for a smooth integration of annotating with reading is the most difficult to interpret from a design point of view; yet, it is potentially the most important." He added that it is very likely that people will continue to print out electronic documents for annotation, even as they read materials in a digital library.

According to the American Library Association (ALA), only 44.8% of incoming first-year students have experience evaluating the quality and reliability of information and only 29.3% have experience finding scientific research articles and resources.

Mizrachi, et al. (2016, 2018) and Mizrachi (2015), digital technology has penetrated the old age traditional book industry with success, with electronic format products proving more suited and convenient for some activities, and being popular with many educators, administrators and policy makers than traditional sources. In fact, the

electronic ‘invasion’ has been so impactful that a common assumption now is that digital technology is poised to replace paper-based media in the foreseeable future.

Liu (2004) stated that the proliferation of electronic resources and digital libraries have as of now affected and changed the way students and researchers utilize print resources and traditional libraries. College students, graduate students, and faculty have distinctive perceptions and preferences in their decisions about print and electronic resources.

### iii. Methodology

The survey design was used in this study. The instrument used to collect data was self-administered questionnaires which were distributed to the respondents which comprised of 100-500 level Agriculture Science faculty undergraduate students in university of Jos. The researchers were supported by two students who assisted to administer the questionnaire. Data generated for the study was analyzed using the Statistical Package for Service Solution (SPSS) version 21 from which descriptive and inferential statistics were computed and two set of hypotheses were tested.

The target population was all undergraduate students from the Faculty of Agriculture, University of Jos, Nigeria. The entire population size was 680. The sample size of 68 was calculated using John Curry (1984) Rule of Thumb Method which suggested that if the entire population size is within the range of 101-1000, 10% of the sample should be used. Thus, the stipulated 10% sample fraction was allocated to each academic year (See Table 1).

**Table 1. Study population and sample size**

| Academic Level of Study | Total Population Size | Calculated Sample Size (10%) |
|-------------------------|-----------------------|------------------------------|
| 100                     | 220                   | 22                           |
| 200                     | 160                   | 16                           |
| 300                     | 120                   | 12                           |
| 400                     | 100                   | 10                           |
| 500                     | 80                    | 8                            |
| <b>TOTAL</b>            | <b>680</b>            | <b>68</b>                    |

Source: Academic Planning, 2018/2019

**Table 11: Demographic distribution of Respondents**

| Item                  | Frequency | Percentage (%) |
|-----------------------|-----------|----------------|
| <b>Gender</b>         |           |                |
| Male                  | 40        | 58.8           |
| Female                | 28        | 41.2           |
| <b>Total</b>          | <b>68</b> | <b>100</b>     |
| <b>Age (years)</b>    |           |                |
| 20-24                 | 49        | 72.06          |
| 25-29                 | 18        | 26.47          |
| 30-34                 | 0         | 0.00           |
| 35-39                 | 0         | 0.00           |
| 40 and above          | 1         | 1.47           |
| <b>Total</b>          | <b>68</b> | <b>100</b>     |
| <b>Marital status</b> |           |                |
| Single                | 66        | 97.1           |
| Married               | 1         | 1.5            |
| Others                | 1         | 1.5            |
| <b>Total</b>          | <b>68</b> | <b>100</b>     |

Source: Researchers' field work 2019/2020

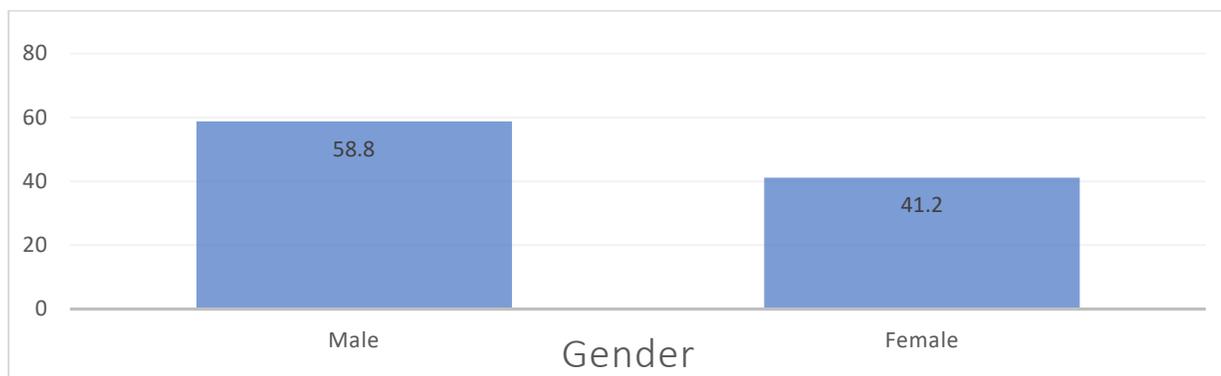


Figure 1: Bar chart showing the distribution of the respondents by Gender

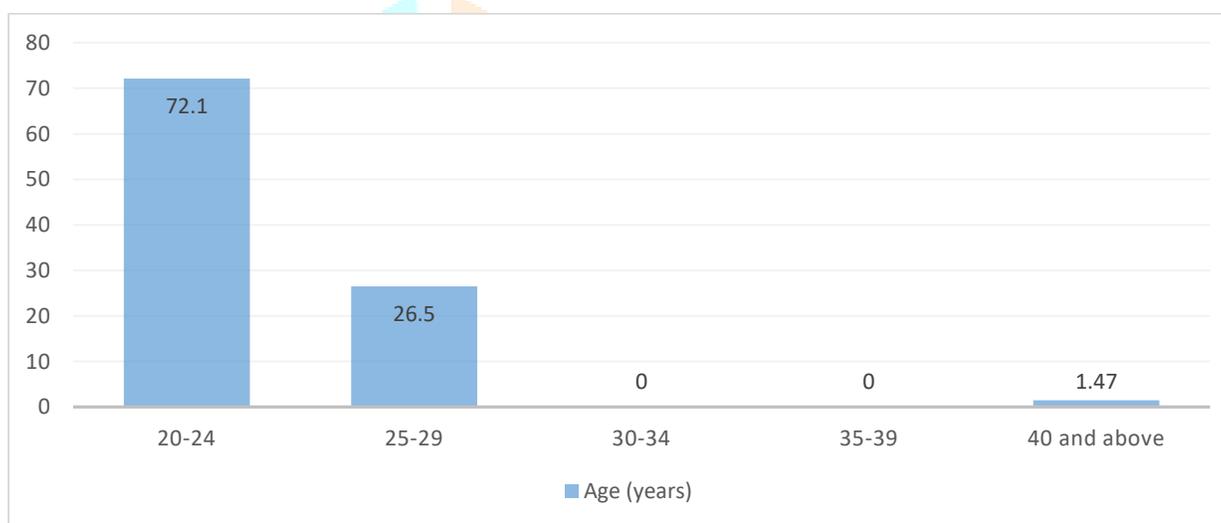


Figure 2: Bar chart showing the distribution of the respondents by Age

Figure 2: Bar

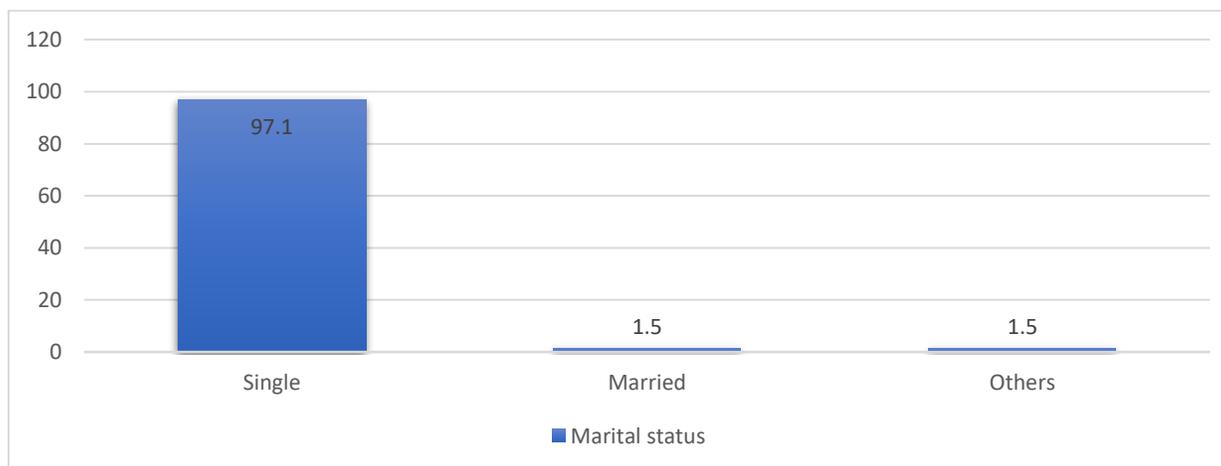


Figure 3: Bar chart showing the distribution of the respondents by Marital status

The demographic variable as presented on Table 1 shows that, 40 (58.8%) of the respondents are male while the remaining 28 (41.2%) are female. 49 (72.1%) of the respondents are within the age bracket of 20-24 years, 18 (26.5%) within age range 25-29 years, 1 (1.47%) within the age range 40 years and above, while none of the respondents is within the age range of 30-34 and 35-39 years respectively. This implies that majority of the respondents are male, within the age bracket of 20-24 years and are single.

### Answering of Research Questions

**Research question 1:** What are the types of Print Information Resources you have used at University of Jos Library?

**Table 2: Types of Print Information Resources undergraduate students have used**

| S/N. | Types of Print Information Resources                   | Strongly Agreed | Agreed     | Undecided  | Disagree   | Strongly Disagree |
|------|--|-----------------|------------|------------|------------|-------------------|
| 1.   | Journal (print)  | 25(36.76%)      | 22(32.35%) | 9(13.23%)  | 8(11.76%)  | 4(5.88%)          |
| 2.   | Newspapers/ Magazines                                  | 16(23.53%)      | 32(47.06%) | 6(8.82%)   | 10(14.70%) | 4(5.88%)          |
| 3.   | Projects   | 23(33.82%)      | 24(35.29%) | 10(14.70%) | 8(11.76%)  | 3(4.41%)          |
| 4.   | Textbooks  | 38(55.88%)      | 28(41.18%) | 1(1.47%)   | 1(1.47%)   | 0(0.00%)          |
| 5.   | Special Collections in Document section of the Library | 18(26.47%)      | 20(29.41%) | 14(20.59%) | 11(16.18%) | 5(7.35%)          |
| 6.   | Encyclopedias  | 20(29.41%)      | 28(41.18%) | 10(14.70%) | 8(11.76%)  | 2(2.94%)          |
| 7.   | Reference books  | 20(29.41%)      | 27(39.71%) | 10(14.70%) | 9(13.24%)  | 2(2.94%)          |
| 8.   | Maps   | 13(19.11%)      | 15(22.06%) | 19(27.94%) | 12(17.65%) | 9(13.24%)         |

Table 2 shows that 38 (55.88%) of undergraduates of Faculty of Agriculture University of Jos strongly agree that they majorly use Textbooks out all the listed prints information resources in university of Jos library is textbooks. 25 (37.76%) strongly indicate journal (prints), 23 (33.82%) indicate projects, 20 (29.41%) indicate encyclopedia and reference books, 18 (26.47%) strongly agree that they use special collections in document sections of the library, 16 (23.53%) and 13(19.11%) strongly agree that they use newspapers/magazines, and maps respectively.

**Research question 2:** Why do you use the above Print Information Resources in University of Jos Library?

**Table 3: Purpose of using Print Information Resources**

| S/N. | Purpose(s) for using Print Information Resources | Strongly Agreed | Agreed     | Undecided  | Disagree | Strongly Disagree |
|------|--|-----------------|------------|------------|----------|-------------------|
| 1.   | Prepare for Practical classes                    | 22(32.35%)      | 32(47.06%) | 7(10.29%)  | 5(7.35%) | 2(2.94%)          |
| 2.   | To prepare for Examination                       | 31(45.59%)      | 29(42.65%) | 3(4.41%)   | 4(5.88%) | 1(1.47%)          |
| 3.   | Assignment                                       | 37(54.41%)      | 27(39.71%) | 4(5.88%)   | 0(0.00%) | 0(0.00%)          |
| 4.   | Project Writing                                  | 18(26.47%)      | 25(36.76%) | 16(23.53%) | 4(5.88%) | 6(8.82%)          |
| 5.   | General Information                              | 28(41.81%)      | 35(51.47%) | 3(4.41%)   | 0(0.00%) | 2(2.94%)          |

Table 3 gives the responses the respondents to reasons for using prints information resources. It revealed that 37 (54.41%) strongly agree that they used it for assignments, 31 (45.59%) to prepare for examination, 28 (41.81%) general information, 22 to (32.35%) prepare for practical classes while 18 (26.47%) strongly agree that they used

it for project writing. This means that average number of the respondents strongly agree that they used print information resources for Assignment.

**Research question 3:** How frequent do you use the above Print Information Resources?

**Table 4: Frequency of use of Print Information Resources**

| S/N. | Types of Print Information Resources                   | Very Frequently | Frequent   | Undecided  | Occasionally | Rarely/Hardly |
|------|--|-----------------|------------|------------|--------------|---------------|
| 1.   | Journal (print)  | 19(27.94%)      | 12(17.65%) | 4(5.88%)   | 17(25.00%)   | 15(22.06%)    |
| 2.   | Newspapers   | 8(11.76%)       | 15(22.06%) | 8(11.76%)  | 18(26.47%)   | 19(27.94%)    |
| 3.   | Projects   | 6(8.82%)        | 25(37.76%) | 10(14.70%) | 14(20.59%)   | 13(19.11%)    |
| 4.   | Magazines  | 7(10.29%)       | 22(32.35%) | 12(17.65%) | 14(20.59%)   | 13(19.11%)    |
| 5.   | Special Collections in Document section of the Library | 11(16.18%)      | 19(27.94%) | 10(14.70%) | 20(29.41%)   | 8(11.76%)     |
| 6.   | Textbooks  | 42(61.76%)      | 11(16.17%) | 4(5.88%)   | 6(8.82%)     | 5(7.35%)      |
| 7.   | Encyclopedias  | 16(23.53%)      | 22(32.35%) | 14(20.59%) | 10(14.70%)   | 6(8.82%)      |
| 8.   | Reference books  | 17(25.00%)      | 18(26.47%) | 12(17.65%) | 13(19.11%)   | 8(11.76%)     |
| 9.   | Maps   | 4(5.88%)        | 12(17.65%) | 18(26.47%) | 14(20.59%)   | 20(29.41%)    |

Table 4 reveals the frequency of use of print information resources by undergraduates of Faculty of Agriculture, University of Jos. It reveals that 42 (61.76%) of the respondents indicated that they use Textbooks very frequently. 19 (27.94%) use journal (print), 17 (25.00%) use reference books, 16 (23.53%) use Encyclopedias, 11 (16.18%) use collection in documents section of the library, 8 (11.76%) newspapers, 7 (10.29%) magazines, 6 (8.82%) project, and maps 4(5.88%) very frequently. This implies that undergraduate students of the Faculty of Agriculture Science very frequently use Textbooks.

**Research question 4:** What are the constraints to your effective use of Print Information Resources in University of Jos Library?

**Table 5: Constraints of effective use of Print Information Resources**

| S/No. | Constraints  | Strongly Agree | Agree      | Disagree   | Strongly Disagree |
|-------|--|----------------|------------|------------|-------------------|
| 1.    | Excessive control/rules of library                                 | 38(55.88%)     | 19(27.94%) | 10(14.70%) | 1(1.47%)          |
| 2.    | Inconvenient opening and closing hour                              | 19(27.94%)     | 18(26.47%) | 26(38.24%) | 5(7.35%)          |
| 3.    | Inadequate current and relevant books                              | 35(51.47%)     | 17(25.00%) | 14(20.59%) | 2(2.94%)          |
| 4.    | Unconducive Reading environment                                    | 13(19.11%)     | 16(23.56%) | 30(44.11%) | 9(13.26%)         |
| 5.    | Some pages of Print materials are mutilated (eg. Missing, defaced) | 14(20.59%)     | 20(29.41%) | 22(32.35%) | 12(17.65%)        |
| 6.    | Poor Staff/Student Relationship                                    | 25(36.76%)     | 19(27.94%) | 12(17.65%) | 12(17.65%)        |

Table 5 shows respondents' responses to the constraints to effective use of print information resources by undergraduate students of Faculty of Agriculture, University of Jos in the following order: 38 (55.88%) of the respondents indicate excessive control/ rules of library, 35 (51.47%) stated inadequate current and relevant books, 25 (36.76%) poor staff /students relationship, 19 (45.59%) inconvenient opening and closing hour, 14 (20.59%) some pages of print materials are mutilated (e.g. missing, defaced) while 13(19.11%) indicated unconducive reading environment respectively.

**Research question 5:** What are the proffer suggestions to overcome the above-mentioned constraints to your effective use of Print Information Resources in University of Jos Library?

**Table 6: Suggestions proffered to overcome constraints**

| S/No. | Suggestions  | Strongly Agree | Agree      | Disagree   | Strongly Disagree |
|-------|--|----------------|------------|------------|-------------------|
| 1.    | Flexible control/rules of library  | 48(70.59%)     | 11(16.17%) | 6(8.82%)   | 2(2.94%)          |
| 2.    | Opening and closing hour of the Library should be reviewed                                       | 28(41.18%)     | 23(33.82%) | 14(20.59%) | 3(4.41%)          |
| 3.    | Provide adequate current and relevant books in Agriculture Science                               | 43(63.23%)     | 17(25.00%) | 3(4.41%)   | 5(7.35%)          |
| 4.    | Reading environment should be conducive  | 36(52.91%)     | 28(41.18%) | 3(4.41%)   | 1(1.47%)          |
| 5.    | Print materials with missing pages should be withdrawn from the shelf and replaced with new ones | 37(54.49%)     | 23(33.82%) | 7(10.29%)  | 1(1.47%)          |
| 6.    | Cordial Staff/User Relationship needed   | 40(58.82%)     | 24(35.29%) | 4(5.88%)   | 0(0.00%)          |

On suggestions proffered to overcome the constraints to effective use of prints information resources by Undergraduates of Faculty of Agriculture University of Jos as presented in Table 6 reveals that 48 (70.59%) of the respondents strongly agreed that excessive control/rules of library should be proffered with flexible control/rules of library and this was ranked highest. This is followed by: provision of adequate current and relevant books in Agriculture scored by 43 (63.23%), cordial staff/user relationship needed as indicated by 40 (58.82%), Print materials with missing pages should be withdrawn from the shelf and replaced with new ones with 37((54.49%), reading environment should be conducive with 36 (52.91%), and lastly 28 (41.18%) stated opening and closing hour of the library should be reviewed.

**Research question 6:** Are you satisfied using Print Information Resources at University of Jos Library?

**Table 7: Level of satisfaction using Print Information Resources****Figure 4: Chart showing the respondents level of satisfaction**

Table 7 reveals respondents' level of satisfaction with print information resources at University of Jos library that Two third of the responders 52(76.47%) indicate they are satisfied using print information resources while 16 (23.53%) indicate that they are not satisfied using print information resources. This means undergraduate of Faculty of Agriculture at University of Jos are satisfied using the available print information resources in university of Jos.

### Testing of Hypothesis

**Ho1:** there is no significant difference in the use of print information resources between male and female final year students of Faculty of Agriculture Science at University of Jos library, Nigeria

**Table 8: Difference in the use of print information resources of male and female students**

| Gender | N  | Mean  | Std.D | df | t      | P-value | Remark |
|--------|----|-------|-------|----|--------|---------|--------|
| Male   | 40 | 32.29 | 5.01  | 66 | 1.541* | 0.002   | Sig.   |
| Female | 28 | 34.36 | 5.89  |    |        |         |        |

\* denotes significant at  $p < 0.05$

Table 8 shows that there is a significant difference in the use of print information resources final year students of faculty of agriculture science university of Jos library ( $t = 1.54$ ,  $df = 66$ ,  $p < 0.05$ ). Hence hypothesis 1 was rejected. It also reveals that female undergraduates have higher utilization mean score (34.36) than their male counterparts (32.29) and this difference in their mean score is significant. This means that gender (male and female) of the final year students of faculty of agriculture science at university of Jos library has effect on their use of print information resources.

## RESULTS

Table 1 revealed the demographic characteristics of the respondents as follows: More male (40) used the available print information resources in university of Jos Library as compared to (28) female. This disagrees with the finding of Aladeniyi and Owokole (2018) study on Utilization of Library Information Resources by Undergraduate Students of University of Medical Science Ondo, Ondo State, Nigeria that the female respondents were more than the male respondents, having 155 (66.2%) while the male respondents have 79 (33.8%). Furthermore, table 1 revealed two third of the respondents are within the age bracket of 20-24 years and very large number of undergraduate students indicated they are single.

Table 2 summaries opinions of respondents on types of print information resources used and it revealed that 55.88% of undergraduates of Faculty of Agriculture University of Jos indicated they majorly use textbooks out all the listed prints information resources in university of Jos library. 37.76% indicated journal (prints), 33.82% indicate projects, 29.41% encyclopedia and reference books, 26.47% stated they use special collections in document sections of the library, 23.53% and 19.11% indicated they use newspapers/magazines, and maps respectively. This conforms with the findings of Olajide and Adio (2017) study on Effective Utilization of University Library Resources by Undergraduate Students: A Case Study of Federal University Oye-Ekiti, Nigeria that Abstracts, textbooks, maps, encyclopedia, journals, dictionary, magazines /newspapers and many more were all available and utilized.

Table 3 gives the responses of respondents to reasons for using prints information resources. It revealed that 54.41% stated they used it for Assignments, 45.59% to prepare for examination, 41.81% general information, 32.35% prepare for practical classes while 26.47% indicated they used it for project writing. This means that average number of respondents indicated they used print information resources for Assignment and the least used was for project writing which may be attributed to the fact that the faculty of agriculture in the university of Jos has barely graduated a set. This negates the findings by Aladeniyi and Owokole (2018) on utilization of Library Information Resources by Undergraduate Students of University Of Medical Science Ondo, that majority of the respondents 231(98.7%) agree they use the library resources for the purpose of obtaining general information, 224(95.7%) use it for examination, while 220 (95%) use it for assignment and 217(92.7%) for research respectively.

Table 4 reveals the frequency of use of print information resources by undergraduates of Faculty of Agriculture, University of Jos. It reveals that 61.76% of the respondents indicated they use textbooks very frequently. Interestingly, undergraduate students still maintained the fact that they used textbooks very frequently out of all the outlined print information resources in University of Jos Library. Others such as 27.94% use journal (print), 25.00% reference books, 23.53% Encyclopedias, 16.18% use collection in documents section of the library, 11.76% newspapers, 10.29% magazines, 8.82% project, and maps 5.88% were poorly rated. This agrees with the report of Hammed and Osunrinade (2010) that 64.8% of undergraduate students who responded in their study preferred to use text books against 22.1% who used journal.

Table 5 shows respondents' responses to the constraints that hinder undergraduate students of Faculty of Agriculture, University of Jos effective use of print information resources. Two main items were rated high as constrains as 55.88% of the respondents indicated excessive control/ rules of library and 51.47% stated inadequate current and relevant books. Other challenges are 36.76% poor staff /student's relationship, 45.59% stated inconvenient opening and closing hour, 20.59% indicated some pages of print materials are mutilated (e.g. missing, defaced) while 19.11% indicated uncondusive reading environment respectively.

On suggestions proffer to overcome the constraints that hinder the effective use of prints information resources by Undergraduates of Faculty of Agriculture University of Jos as shown in Table 6 reveals that 48 (70.59%) of the respondents strongly agreed that excessive control/rules of library should be proffered with flexible control/rules of library and this was ranked highest. This is followed by: provision of adequate current and relevant books in Agriculture scored by 43 (63.23%), cordial staff/user relationship needed indicated by 40 (58.82%), Print materials with missing pages should be withdrawn from the shelf and replaced with new ones with 37((54.49%), reading environment should be condusive with 36 (52.91%), and lastly 28 (41.18%) strongly agree that opening and closing hour of the library should be reviewed.

Table 7 reveals respondents' level of satisfaction with print information resources at University of Jos library. It indicates that two third of the responders 52 (76.47%) indicate they are satisfied using print information resources while 16 (23.53%) indicate that they are not satisfied using print information resources. This means that undergraduate students of Faculty of Agriculture at University of Jos are satisfied using the available print information resources in university of Jos. Our finding do not agree with the report of Mohammed (2010) study on Utilization of print and electronic information resources and services by undergraduate students of university

libraries in Niger State, Nigeria that many of the undergraduate students were not satisfied with some of the print and electronic information resources and services provided by their university libraries.

Table 8 shows that there is a significant difference in the use of print information resources by undergraduate students of faculty of agriculture science university of Jos library ( $t = 1.54$ ,  $df = 66$ ,  $p < 0.05$ ). Hence hypothesis 1 was rejected. It also reveals that female undergraduates have higher utilization mean score (34.36) than their male counterparts (32.29) and this difference in their mean score is significant. This means that gender (male and female) of the final year students of faculty of agriculture science at university of Jos library has effect on their use of print information resources.

## Conclusion

Findings emerged from our study that print information resources are frequently utilized for assignments by undergraduate students of faculty of Agriculture Science, at University of Jos. They are satisfied using print information resources, but however constrained by excessive control/ rules of library and inadequate current and relevant books in their subject area. Library rules should be flexible in some areas to enable undergraduate students feel at home as they use the available print information resources to satisfy their information needs. Failure to do so will make undergraduate students drift further away from the Library and the main goal of the library will not be met. These two constraints should be treated with utmost urgency so as to enhance more visitation for maximum utilization of these rich historic artifacts by undergraduate students for whom the resources are majorly meant for. There is also the need by professional information librarians to collect and develop an in-depth prints information resources based on relevance and currency to meet the numerous undergraduate students' information needs.

We can confidently conclude that print information resources are still very much sought after and used by undergraduate students of faculty of Agriculture Science, at University of Jos.

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