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# APPLICATION OF SOCIAL INFLUENCE OF UTAUT AND STUDENTS' CHARACTERISTICS ON UNDERGRADUATES' USE OF E-RESOURCES IN FEDERAL UNIVERSITY GUSAU, ZAMFARA STATE, NIGERIA

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**Abstract**

As teens and young adults, undergraduates are susceptible to the influence of others. This study was aimed at examining social influence, a construct of the Unified Theory of Acceptance and Use of Technology (UTAUT), students' characteristics of age, level of study and course of study on undergraduates' frequent use of e-resources at the Federal University, Gusau, Nigeria. The study adopted the descriptive research design. The population was 4,640 registered library users for the 2022/2023 academic session, spread across 200, 300 and 400 levels; excluding 100 level. Purposive sampling method was used to select 320 students across the faculties and a sample size of 280 students across the levels was selected using a simple random sampling technique. A self-structured questionnaire was administered to the 280 students in the library out of which 268 were returned and 260 (81.25%) were found usable for the analysis. Descriptive statistics was used for the analysis (cross tabulation, frequency, simple percentages) and presented in tables. The hypotheses were tested using chi-square. Analysis was done using SPSS version 26. The findings revealed a moderate use of e-resources by the students, and also showed that social influence has a positive significant influence on students' frequent use of e-resources. The study recommended that the stakeholders should intensify efforts to encourage students so as to make more use of the e-resources.

**Keyword:** Social influence, UTAUT, Students' characteristics, Level of study, Course of study, Use of e-resources, University, Nigeria

## Introduction

The university community, including students, requires modern e-resources to enhance academic performance. The university library is transitioning from print to e-resources, making information easier to find, inspiring new ideas, and boosting academic performance (Vakkari, 2008). Undergraduates, born in the technology era, exhibit unique learning and information seeking styles, assimilate more with interactive learning than passive learning and adolescents live, breathe, work, and play with digital age tools and goods in unique ways (Emezie, et al., 2020). Digital natives are literate and prolific Internet users, thereby,

making undergraduates proficient in using electronic resources (Palfrey & Gasser, 2008 (in Greene, Yu & Copeland, 2014). E-resource utilisation refers to the degree to which users make use of electronic resources in order to fulfil their information requirements (Nwachukwu, Abdulsalami, & Salami, 2014). E-resources utilisation offers numerous benefits, including simultaneous access, 24/7 access, cross-referencing, quick access, search, retrieval, and sharing of materials. E-resources also provide a wide range of content in various formats, setting them apart from print resources (Abubakar, Gupiyem, & Banwar, 2017).

Information technology professionals must study consumers' adoption, acceptance, and rejection of a system (Venkatesh, Morris, Davis, & Davis, 2003). As a technical product, certain factors may affect undergraduates' usage of e-resources and their frequency, which is crucial to academic achievement. The Unified Theory of Acceptance and Use of Technology (UTAUT) model by Venkatesh et al. (2003) includes social influence as one of these constructs. Other factors include student characteristics like age, gender, course of study, and study level (Daniel & Agba, 2021; Cox & Cox, 2008 (in Pinigas, Cleopasa & Phiri, 2017). Social influence refers to how individuals perceive the importance of a system through the influence of others, such as peers, family, mentors, and religious beliefs (Venkatesh et al. 2003). Young adults, particularly students, are easily influenced by peer pressure and older adults, such as lecturers and mentors.

Students' characteristics can also determine undergraduates' use of technology. These are variables associated with the students, in this context; gender, age, level of study and course of study. Gender is the sexual categorization of human beings into male and female. According to Waldman (2003), gender is a relevant factor in examining the use of e-databases, which are library e-resources. Gender issues on many grounds favour men, as so many things are believed to be for men, hence gender inequality and the need to ascertain the continued relevance of Waldman's position. Age implies the number of years an individual has lived from time of birth. Digital natives, including Nigerian undergraduates under 30, are believed to be frequent users of e-resources in their new era. However, expectations for their use have not been favorable (Greene, Yu & Copeland, 2014). Prompting further research to understand the current situation.

Undergraduates' study level ranges from 100 to 400 to 600, depending on the course. Each level offers unique experiences, including library use and e-resources, making it crucial to understand their influence on these resources. Undergraduates' course of study, talks about the discipline/field/departments or faculty the student is enrolled in. All fields of study require e-resources for their academic pursuits, but, perhaps some would be more familiar with the use of technology than others. STEM fields require more e-resources due to their involvement in innovations (Cox & Cox, 2008, Pinigas, Cleopasa & Phiri, 2017). It is crucial to determine if STEM has a significant influence on the use of e-resources in their academic pursuits. The study investigates the impact of social influence and students' characteristics on the frequency of using library e-resources among undergraduates at Federal University Gusau, Zamfara State. The findings will aid library management in planning user-centered e-services and aid lecturers in developing educational pedagogics for further student instruction (Pinigas, Cleopas, & Phiri, 2017). It is in the light of this that the study seeks to examine the influence of social influence and students' characteristics on the frequency of use of e-resources at the Federal University Gusau, Zamfara State.

## Study Setting

Federal University Gusau, established in 2013, is a public university located in Zamfara State, North-west, Nigeria. It has four faculties, over twenty departments, and a library, and began academic activities in 2015. The state is an agrarian state with an area of 39, 762 square kilometers and Hausa/Muslim dominated with (Chukwuji, Tsafe, Sayudi, Yusuf, & Zakariya, 2018). The university library utilises the Tertiary Education Trustfund's Library Intervention to access millions of e-resources from online databases like

EBSCOHOST. TETFUND is currently on boarding Nigerian tertiary institutions into their Aggregated Journal Library Subscription, which provides access to millions of e-resources from different refereed online databases both subscribed and open access. It also provides facilities for utilising reputable open access databases and ensures efficient usage of these resources. The university provides 160 desktop computers and a campus-wide network, as well as its own bandwidth. As a further deliberate effort to enhance students' digital literacy and make them use the e-resources, they also teach the 2 credit load compulsory courses, Use of Library and ICT (GST 105) at 100 level to create awareness of the availability of the e-resources impact them with digital literacy knowledge. However, the library use register suggests low usage, prompting the need for this study.

**Statement of the Problem**

University libraries are adapting to the rapid growth of online literature, including electronic information resources (EIRs) like e-journals, books, and abstracts. These resources are expensive and should be utilised optimally to justify investment and benefit students. E-resources provide students with access to current knowledge, a flexible study plan, and can be accessed from various locations, including classrooms and hostels. Previous studies show low usage of e-resources in Africa, particularly Nigeria. Despite being digital natives, accessibility, benefits, and efforts by libraries to improve utilisation, the trend persists, raising questions about students' acceptance, adoption, and use of technology status.

Reviewed literature shows a frequent use of e-resources by undergraduates, however, no literature linked the frequency of use to social influence; hence, this study attempts to determine whether social influence and students' characteristics have significant positive influence on the frequent use of e-resources. This study therefore investigates the relationship between social influence and students' characteristics at Federal University Gusau Library, Zamfara State, Nigeria, aiming to fill knowledge gaps and explore the positive impact of these factors on e-resources' usage.

**Objectives of the Study**

The study's main objective was to find out the influence of students' characteristics and social influence on undergraduates' frequent use of e-resources. The specific objectives are to:

1. ascertain the undergraduates' frequency of use of e-resources in Federal University Gusau, Zamfara State;
2. examine whether social influence determines undergraduates' frequent use of e-resources in Federal University Gusau, Zamfara State; and
3. investigate the influence of undergraduates' characteristics on the use of e-resources.

**Research Questions**

The following research questions guided the study:

1. What is the frequency of undergraduates' use of e-resources in Federal University Gusau, Zamfara State?
2. How does social influence have a positive relationship with the use of e-resources by the undergraduates in Federal University Gusau, Zamfara State?
3. What influence do students' characteristics have on undergraduates' frequent use of e-resources?

**Hypotheses**

The following hypothesis was tested at 0.005 level of significance:

1. **$Ho_1$:** Social influence has a positive significant influence on the frequency of use of e-resources by the undergraduates.
2. **$Ho_2$:** Gender has a positive significant influence on undergraduates' frequency of use of e-resources.

3. **$Ho_3$:** Age has a positive significant influence on undergraduates' frequency of use of e-resources.
4. **$Ho_4$:** Level of study has a positive significant influence on undergraduates' frequency of use of e-resources.
5. **$Ho_5$:** Course of Study has a positive significant influence on undergraduates' frequency of use of e-resources.

## Review of Related Literature

### Theoretical Framework

### Unified Theory of Acceptance and use of Technology (UTAUT)-Social Influence

According to Taherdoost (2018), in order to understand and predict users' behaviours to the use of technology, scholars over the years have integrated, extended or applied various technology acceptance models and theories in different fields like health, education, and purchase behaviors of consumers etc. This study uses the Social Influence Theory (UTAUT) Venkatesh, et al. (2003) to analyse user behavior in library e-resources. UTAUT, a construct from various models like Theory of Reasoned Action, Technology Acceptance Model, Motivation Model, Theory of Planned Behaviour, Innovation Diffusion Theory, Model of PC Utilisation, and Social Cognitive Theory, is applied to understand and predict technology usage.

UTAUT, a model involving effort expectancy, performance expectancy, social influence, and facilitating conditions has a 70% predictive performance compared to 35% of TAM, and offers flexibility for moderating variables, allowing for new dimensions (Orji, Cetin & Ozkan, 2010). Social influence significantly influences technology adoption and use (Abdou & Jassimudin, 2020). UTAUT, originally developed for employee adoption, is now crucial in consumer behavior (Pinigas, Cleopasa & Phiri, 2017). In organisational settings, technology adoption is mandatory, while in consumer settings, it's voluntary. This study uses UTAUT to determine e-resource adoption and use by university students, as their use is voluntary.

### Frequency of Undergraduates' Use of E-resources

The frequency of students using library e-resources is crucial for their academic performance and functionality in the digital economy. This is because the more they use it, the more they get familiar with the resources and increase their chances of assimilation and enhanced academic performance and functionality in the digital economy. Ankrah and Archeampong (2017) among other things in their study aimed at establishing the extent of use of the e-resources by undergraduates of University of Professional Studies Accra (UPSA). The finding showed that the majority of respondents use these resources weekly. This is fair enough. The study of Abubakar and Mamman (2020) found moderate usage of e-resources among students, possibly due to their non-daily use. However, Alabi (2021) in his study of three private university libraries in South-west, Nigeria, sought to understand the frequency of use of e-resources by the undergraduates and found frequent use of e-resources with 127 (36.6%) of the respondents using them daily. The study suggests that socio-economic status may influence this usage, as students from middle and high income brackets are more likely to access and use ICT resources.

### Social Influence and Use of E-resources by the Undergraduates

Social influence significantly impacts individuals, especially teens and young adults, in their behaviour and intentions to use e-resources. Studies show that social influence constructs influence behaviourial intentions, especially in mandatory contexts where users are required to perform tasks (Venkatesh et al. 2003). Studies show that students' voluntary use of e-resources can improve academic performance (Orji, Cetin and Ozkan, 2010). A recent study in Zimbabwe by Pinigas, Cleopasa and Phiri (2017) found that social influence positively influences behavioral intention to adopt and use e-resources in universities' libraries.

Students' Characteristics

Studies show that gender doesn't significantly influence undergraduates' use of e-resources in universities (Ruzegea & Msonde, 2021; Onojah et al., 2022). This is contrary to conventional belief that males are more disposed to the use of technology than their female counterparts, and Ruzegea and Msonde (2021) held that despite age variable being significant in prompting understanding which comes with an individual's maturity. Literature suggests disappointment in the utilisation of e-resources by undergraduates due to their era of birth. A study by Xu and Du (2018) using structural equation modeling found out that age positively affects digital library use. Students' experiences vary as they go from 100 to 500 or 600 levels, depending on their courses. Xu and Du (2018); Ruzegea and Msonde (2021) and Onojah, et al. (2022) discovered that educational level affects digital library used by the students.

While on the contrary, Lubis, Idrus, Sarji, Lubis, and Sutrisno (2020) revealed that level of study did not moderate e-resource use. E-resources are essential for academic pursuits in all fields, with 96% of research in science, technology, and medicine accessible online, and 87% in arts, humanities, and social sciences (Cox & Cox, 2008 (in Pinigas, Cleopasa and Phiri, 2017). This study on students' use of e-resources which is voluntary, showed that social influence can influence behaviour, intention and actual use of e-resources, even though, they are at liberty to use or not. However, Humde, Demsash and Walle (2023) using modified UTAUT mode revealed that social influence ($\beta = 0.005$; $P = 0.879$) had no significant effect on students' intentions to use e-learning.

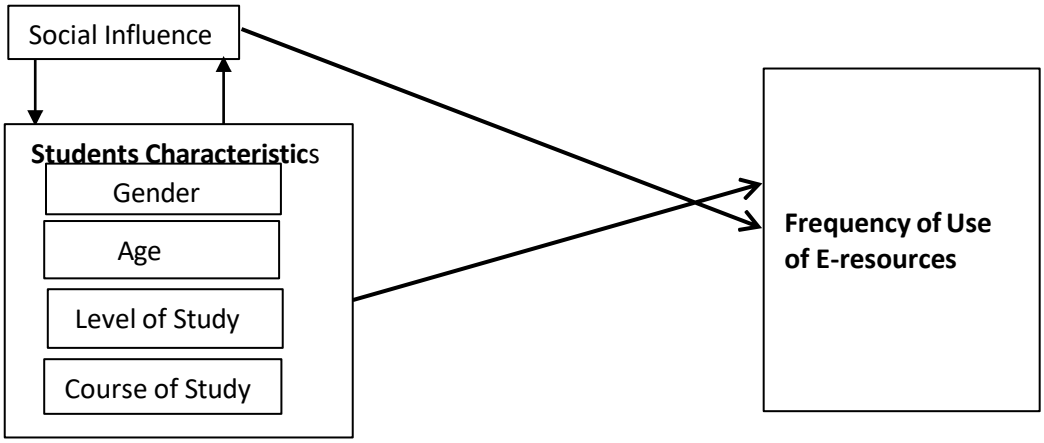



**Fig.1.** The Conceptual Framework (Researcher-designed, 2024)

The model shows that students' frequent use of e-resources is influenced by social influence construct of UTAUT and their gender, age, level of study, and course of study which are students' characteristics, with these variables acting as predictors of their use of these resources.

**Methodology**

The study surveyed 4,640 registered library users at the 2022/2023 academic session, using a descriptive research design. Excluding freshers, based on Hayelom (2014), that students' utilisation of library resources increases with increasing year of study, it focused on 200, 300, and 400 level students. Purposive sampling was used to select 320 students across faculties and using a simple random sampling technique selected 280 across levels. A self-structured questionnaire was administered to 280 library users, with 93% of the responses usable. The questionnaire measured students' frequency of using e-resources and the influence of social influence on their use. Results were analysed using descriptive statistics, tables, and charts, with hypotheses tested using chi-square at 0.05 significant levels.

**Data Analysis and Results**

**Table 1:** Return Rate

| S/N | Description | Number Distributed | Number returned | Number valid & used | Percentage (%) |
|---|---|---|---|---|---|
| 1 | Faculty of Education | 56 | 55 | 50 | |
| 2 | Faculty of Humanities | 40 | 40 | 37 | |
| 3 | Faculty of Management and Social Sciences | 78 | 74 | 73 | |
| 4 | Faculty of Science | 106 | 104 | 100 | |
| | **Total** | **280** | **273** | **260** | **93%** |

Table 1 shows the distribution of the questionnaire that was used to collect data for this study. It showed that Faculty of Science has the highest number of 106 and the highest valid and used questionnaire of 100, followed by Faculty of Management and Social Sciences. The questionnaire was distributed purposefully based on their students' population.

**Table 2:** Frequency of Use of E-resources by the Respondents

| Items | Never used it | Occasionally | Twice a Week | Once a Week | Daily | Total (100%) |
|---|---|---|---|---|---|---|
| Academic purpose | 7(3%) | 64(25%) | 26(10%) | 31(12%) | 132(50%) | 260 |
| I Use e-journals for my academic work | 71(27%) | 64(24.6) | 35(13.4) | 38(15%) | 52(20%) | 260 |
| I use e-books for my academic work | 34(13%) | 80(31%) | 17(6.5) | 54(20.7) | 75(28.8%) | 260 |
| I use online database for my academic work | 32(12.3) | 72(28%) | 24(9%) | 34(13%) | 98(38%) | 260 |
| Overall I use e-resources | 32(12%) | 76(29%) | 77(30%) | 44(17%) | 31 (12%) | 260 |

Table 2 shows the result of frequent use of e-resources. The data reveals that 50.8% of the respondents use the Internet daily for academic purposes, with 27.3% never using it. The majority use e-journals (27.3%), e-books (231.1%), and online databases (37.1%) daily, with 27.7% using them occasionally. Overall, use of e-resources has the majority 77(30%) respondents, who use them twice a week, followed by 76 (29%), who use them occasionally. Daily use and once a week had 31 (12%) and 44 (17%), respectively.

**Table 3:** Impact of Social Influence on the Respondents' Use of E-resources

| Item | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Total |
|---|---|---|---|---|---|---|
| | N | N | N | N | N | N |
| Mentor | 43 (16.5%) | 62 (23.8%) | 23 (8.8%) | 53 (20.4%) | 79 (30.4%) | 260 (100%) |
| Opinion of my relatives | 173 (66.5%) | 49 (18.8%) | 14 (5.4%) | 20 (7.7%) | 4 (1.5%) | 260 (100%) |
| Personal values/convictions | 59 (22.7%) | 73 (28.1%) | 53 (20.4%) | 62 (23.8%) | 13 (5.0%) | 260 (100%) |
| My lecturers' suggestions | 31 (119%) | 32 (12.3%) | 45 (17.3%) | 70 (26.9%) | 82 (31.5%) | 260 (100%) |

| | | | | | | |
|---|---|---|---|---|---|---|
| My friends are using them | 29 (11.2) | 8 (3.1%) | 68 (26.2%) | 72 (27.7%) | 83 31.9%) | 260 (100%) |
| My school mates | 70 (26.9%) | 75 (28.8%) | 46 (17.7%) | 63 (24.2%) | 6 (2.3%) | 260 (100%) |
| Do not use EIRs because of my religious belief | 97 (37.3%) | 40 (15.4%) | 46 (17.7%) | 59 (22.7%) | 18 (6.9%) | 260 (100%) |
| Do not use EIRs because of cultural belief | 150 (57.7%) | 51 (19.6%) | 27 (10.4%) | 30 (11.5%) | 2 (.8%) | 260 (100%) |
| Overall Opinion of people that matters | 15 (5.8%) | 25 (9.6%) | 50 (19.2%) | 74 (28.4%) | 96 37%) | 260 (100%) |

Table 3 presents the data on the impact of social influence, a construct of the UTAUT on students' frequency of use of EIRs with 260 respondents. The result showed that out of the nine items tested majority of them (6) indicating influence of mentor, lecturers' suggestions, aligns with personal values/convictions, because friends are using them, cultural belief and opinion of people that matters either strongly Agree or Agree, the remaining three statements: opinion of my relatives, my school mates and my religious belief were either strongly disagreed to or disagreed.

Gender and Frequency of Use of E-resources

**Table 4:** Crosstabulation of Gender and Frequency of Use of E-resources among the Respondents

| | **Over all use of E-resources** | | | | | |
|---|---|---|---|---|---|---|
| **Gender** | **Never used It** | **Occasionally** | **Twice a Week** | **Once a week** | **Daily** | **Total** |
| Male | 28(14.8%) | 52(28%) | 53(28.1%) | 36(19%) | 19(10.1%) | 188(72.3%) |
| Female | 3(4%) | 24(33.3%) | 24(33.3%) | 7(10%) | 14(19.4%) | 72(27.7%) |
| **Total** | | | | | | **260(100%)** |

Table 4 shows the gender participation in the study. It showed that there is a total of 188 males representing the highest percentage of 72.3% and the females were 72(27.7%) that uses the e-resources. The table shows that the male majority in all the scales; 19 (10.1%) of the males use the Internet for academic purposes daily against 14(19.4%) females; 36(19%) males use once a week while the females were 7(10%) with another 58(28.1%) males who used it twice a week, against the 24(33.3%) females even as "Occasionally" has 52(28%) males against 24(33.3%) females.

**Table 5:** Crosstabulation of Age and Overall Use of e-resources

| | **Over all use of E-resources** | | | | | |
|---|---|---|---|---|---|---|
| **Age** | **Never used it** | **Occasionally** | **Twice a Week** | **Once a Week** | **Daily** | **Total** |
| 16-18 | 0 | 4 | 6 | 1 | 1 | 12 |
| 19-21 | 12 | 19 | 18 | 12 | 14 | 75 |
| 22-24 | 14 | 39 | 38 | 17 | 7 | 115 |
| 25-27 | 1 | 11 | 12 | 6 | 5 | 35 |
| 28-30 | 3 | 0 | 2 | 2 | 0 | 7 |
| 30 above | 1 | 3 | 2 | 5 | 4 | 15 |
| **Total** | **31(12%)** | **76(29%)** | **77(30%)** | **43(17%)** | **31(12%)** | **260(100%)** |

Table 5 is the data on the respondents' frequency of use of e-resources by age. It shows that the age range of 22-24 years was in the majority (115), followed by the 19-21 years with 75 and 28-30 as the least.

Furthermore, 77(30%) used the e-resources "Twice a week", closely followed by 76(29%) who used it "Occasionally". Those who used it "Daily" and those "Who never used it" before have 31(12%) respondents, respectively.

**Table 6:** Crosstabulation of Level of Study and Overall Use E-resources

| | Over all use of E-resources | | | | | |
|---|---|---|---|---|---|---|
| **Level of Study** | **Never used it** | **Occasionally** | **Twice a Week** | **Once a Week** | **Daily** | **Total** |
| 200 | 4(6.2%) | 21(33%) | 19(29.6%) | 10(15.6%) | 10(15.6%) | **64(24.6%)** |
| 300 | 15(15%) | 26(26%) | 32(32%) | 16(16%) | 12(11%) | **101(39%)** |
| 400 | 11(11%) | 29(31%) | 27(28%) | 18(19%) | 10(10%) | **95(35.7%)** |
| | | | | | **Total** | **260(100%)** |

Table 6 presents the data on the respondents' level of study and use of e-resources. It shows that 300 level were in the majority 101(39%), followed by 93(35.7%) with 200 level as the least.

**Table 7:** Crosstabulation Result of Course of Study and Overall use of E-resources

| | Over all use of E-resources | | | | | |
|---|---|---|---|---|---|---|
| **Course of Study** | **Never Used it** | **Occasionally** | **Twice a Week** | **Once a week** | **Daily** | **Total** |
| Faculty of Education | 4 | 15 | 17 | 7 | 6 | **49(19%)** |
| Faculty of Arts and Humanities | 6 | 11 | 10 | 6 | 5 | **38(14.6%)** |
| Faculty of Management and Social Sciences | 13 | 20 | 19 | 13 | 8 | **73(28%)** |
| Faculty of Science | 8 | 29 | 31 | 17 | 15 | **100(38.4%)** |
| | 31(12%) | 76(29%) | 76(29%) | 43(17%) | 34(13%) | **260(100%)** |

Table 7 reveals the respondents' use of e-resources by course of study, showing that the Faculty of Sciences has 100(38.4%) respondents, followed by the Faculty of Management and Social Sciences with 73(28%). Also, the Faculty of Education has 49(19%) while the Faculty of Arts and Humanities has the least representation with 38(14.6%).

**Result of Hypotheses Testing**

**$HO_1$:** Social influence has no positive significant influence on undergraduates' frequent use of e-resources for academic purposes.

**Table 8:** Chi-Square test of the significant influence of social influence on undergraduates' use of e-resources

| | **Value** | **Df** | **Asymptotic Significance (2-sided)** |
|---|---|---|---|
| Pearson Chi-Square | 30.200[a] | 20 | .067 |
| Likelihood Ratio | 33.164 | 20 | .032 |
| Linear-by-Linear Association | 4.758 | 1 | .029 |
| N of Valid Cases | 260 | | |

Table 8 shows the result of the test to determine whether social influence of UTAUT has a positive significant influence on students' frequent use of e-resources. It suggests that since the p-value (.067) is

greater than a=0.05. The study therefore rejects the null hypothesis and accepts the alternate hypothesis that social influence has a positive significant impact on undergraduates' frequent use of e-resources for academic purposes. This validates the tenet of the social influence construct of UTAUT that opinion of people that matters to an individual could make them to use technology.

**$HO_2$:** Gender has a positive significant influence on undergraduates' frequent use of e-resources.

**Table 9:** Chi-Square Test of the significant influence of gender on undergraduates' frequent use of e-resources

| | Value | Df | Asymptotic Significance (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 14.350[a] | 5 | .014 |
| Likelihood Ratio | 15.865 | 5 | .007 |
| Linear-by-Linear Association | 2.026 | 1 | .155 |
| N of Valid Cases | 260 | | |

Table 9 presents the result of the hypothesis tested to determine whether gender has a positive significant influence on undergraduates' frequent use of e-resources. From the analysis, the p-value (.014) is seen to be greater than a = 0.05. Therefore, the alternate hypothesis, which states that gender has a positive significant influence on undergraduates' frequent use of e-resources was accepted and the null hypothesis rejected.

**$HO_3$:** Age has a positive significant influence on undergraduates' frequent use of e-resources

**Table 10:** Chi-Square Test of the significant influence of social influence on undergraduates' use of e-resources

| | Value | Df | Asymptotic Significance (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 42.232[a] | 25 | .017 |
| Likelihood Ratio | 42.117 | 25 | .017 |
| Linear-by-Linear Association | 2.228 | 1 | .136 |
| N of Valid Cases | 260 | | |

Table 10 presents the result of chi-square test to determine if age has a positive significant influence on undergraduates' frequency use of e-resources. The result shows that the p-value of (.017) is > than a = 0.05. Therefore, the alternate hypothesis which states that age has a positive significant influence on undergraduates' frequent use of e-resources was accepted and the null hypothesis rejected.

**$HO_4$:** Level of study has a positive significant influence on undergraduates' frequent use of e-resources
**Table 11:** Chi-Square Test of the significant influence of social influence on undergraduates' use of e-resources

| | Value | Df | Asymptotic Significance (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 13.923[a] | 15 | .531 |
| Likelihood Ratio | 15.444 | 15 | .420 |
| Linear-by-Linear Association | .348 | 1 | .555 |
| N of Valid Cases | 260 | | |

Table 11 presents the result of chi-square test to determine if Level of Study has a positive significant influence on undergraduates' frequency use of e-resources. The result shows that the p-value of (.531) is

> than a = 0.05. The decision, therefore, is to accept the alternate hypothesis which states that Level of Study has a positive significant influence on undergraduates' frequency use of e-resources reject the null hypothesis.

**$HO_5$:** Course of study has a positive significant influence on undergraduates' frequent use of e-resources.

**Table 12:** Chi-Square Test of the significant influence of social influence on undergraduates' use of e-resources

| | Value | Df | Asymptotic Significance (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 9.497[a] | 15 | .850 |
| Likelihood Ratio | 9.959 | 15 | .822 |
| Linear-by-Linear Association | 1.517 | 1 | .218 |
| N of Valid Cases | 260 | | |

Table 12 is the result of the hypothesis test to determine whether Course of Study has a positive significant influence on undergraduates' frequent use of e-resources. The result shows that the p-value (.850) is > than a = 0.05. The decision of the study is to therefore accept the alternate hypothesis that Course of Study has a positive significant influence on undergraduates' frequency use of e-resources and reject the null hypothesis.

**Discussion of the Findings**

The research found moderate use of e-resources by respondents. This moderate use of the e-resources amounts to not putting in enough reading hours. This raises a concern, as daily or weekly use is possible, especially for digital natives or gen Z. More frequent use increases familiarity with resources, enhancing academic performance and functionality in the digital economy. This finding aligns with previous research by Abubakar and Mamman (2020). Another finding of the study revealed that social influence significantly influences FUGUS undergraduates' use of e-resources, a strong predictor of their actions, therefore, more deliberate efforts in making them increase their frequency of use of e-resources. This supports previous research, Orji, Cetin and Ozkan (2010) that social influence is a factor in e-resource adoption and usage for all students. The study also supports Alajmi (2018) argument that social influence determines undergraduates' use of e-resources in voluntary contexts.

The study also found that males use e-resources more than females, contradicting previous research that showed that gender significantly affects digital library use XU and DU (2018). This supports the conventional belief that males are more tech-savvy than their female counterparts. However, more recent findings showed gender has no significant effect on use of e-resources (Ruzegea & Msonde, 2021; Onojah et al., 2022). The study found that age does not significantly influence undergraduates' use of e-resources. This is in line with the finding of Ruzegea and Msonde (2021) that the use of e-resources is not influenced by age, despite the significant role of age in understanding and maturity. The majority of Federal University Gusau students are below 30 years old, making them digital natives and supporting the researchers' previous claims that university undergraduates are largely below 30 years old. The study found out that students' study level does not significantly impact their use of e-resources.

This supports the finding of Onojah, et al. (2022). Further finding showed that 300-level students use e-resources more than 400-level students, thereby, conforming to the conclusion of Haylom (2014) that utilisation of library resources increases with students' years of study. The finding on the course of study revealed that Faculty of Science respondents use more e-resources than other faculties. This is an indication

of a higher usage of online resources in sciences, perhaps due to the volume of research embarked upon in the discipline. This aligns with the findings of Cox & Cox's 2008 (in Pinigas, Cleopasa & Phiri, 2017) which indicated that large percentage of research wok in science, technology, and medicine are accessible online, followed by those of arts, humanities, and social sciences.

**Conclusion**

This study concludes that students' characteristics and social influence had significant impact on undergraduates' use of e-resources at the Federal University, Gusau, Zamfara State. A moderate use of e-resources was revealed contrary to the belief on the circumstances of their birth as digital natives. The study's findings therefore established that students' characteristics and social influence have positive significant influence on students' use of e-resources.

**Recommendations**

Based on the findings of the study, the following recommendations are made:

1. The university and library management should explore all avenues to create more awareness and training to the undergraduates on the availability and benefits of using e-resources for academic purposes to ensure more frequent use of available e-resources by the students.
2. Relevant stakeholders to the students should intensify efforts in encouraging the students to make more frequent use of e-resources.
3. Deliberate efforts should be made to encourage female gender to make frequent use of e-resources.

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