# AGE AND EDUCATIONAL BACKGROUND AS A PREDICATOR ON UTILIZATION OF INFORMATION AND COMMUNICATION TECHNOLOGY AMONG UNDERGRADUATE LIBRARY USERS IN UNIVERSITY LIBRARIES IN CROSS RIVER STATE, NIGERIA

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**Abstract**
*The study investigated age and educational background as a predictor of the utilization of information and communication technology among undergraduate library users in university libraries in Cross River State. The study tested two hypotheses to determine the influence of age on the utilization of information and communication technology among undergraduate library users in Cross River State public university libraries and determine the influence of educational background on the utilization of information and communication technology among Undergraduate library users in Cross River State Public Universities. The study adopted an Expost facto research design with a multistage sampling technique to select a total of 667 registered library users representing 10% of the population of the study from the two institutions of 6808. The reliability estimate ranged from .77 to .83. The findings revealed that there is a significant influence of Age on the Utilization of Information and Communication Technology among library users and there is also no significant influence of educational qualification on the utilization of information and communication technology among library users. The study recommended that younger users should be encouraged to intensify their use of the library to make use of modern facilities university should enforce the registration of students with the library compulsory from the first year of study.*

## Introduction

The development of libraries has been highly influenced by information and communication technology around the world. The information age, in this regard, is characterized as an unbroken chain reaction of information where there exists a high level of contemporary ICT integration, application, and use in information management, processing, storage, retrieval, and dissemination, particularly in libraries. This factor has changed the operational dynamics of libraries and services to people in their communities (Smith & Brown, 2021). Factors that affect the integration and effectiveness of ICT in libraries often pertain to individuals and include variables such as age, educational background, and digital literacy levels (Taylor, 2023).

Age, conventionally is seen as the length of time during which a being or thing has existed: length of life or existence to the time spoken of or referred to. Age has been reckoned as an important factor which influences the library user's preference for information and communication technology.

Educational Background sees Education generally as a fundamental tool to the development of knowledge, economy and society in all nations. Therefore, education shall continue to be highly rated in national development plans as the most important instrument of change. Education, apart from being the most powerful instrument for social progress, is also the greatest yet known to man for high personal development. The fundamental considerations upon which all institutions are established are productivity and efficiency made possible through education. By examining the relationship between these variables such as age and educational background, on Information and Communication Technology utilization, educators, policymakers, and researchers can develop strategies to enhance student's engagement with Information and Communication Technology and improve their learning outcomes. Since information and communication technology has become an integral part of modern education and has transformed traditional teaching, learning and research methods, to understand the patterns of Information and Communication Technology utilization among undergraduates, This can be accomplished through age, educational background This study was conducted against this backdrop to ascertain the implementation of information and communication technology among library users in the University of Calabar (UNICAL) and University of Cross River State (UNICROSS), Nigeria.

Educational background as well as through the effective use of information and communication technology among library users.

## Statement of the problem

The library is a center for academic activities. Its functions and services attract users voluntarily and most times unsolicited because of their quest for knowledge. The integration of Information and Communication Technology into library services, teaching learning and research has changed the way libraries now operate, and this has attracted more users. However, contrary to the above, the researcher observed that the library users, especially undergraduates do not effectively utilize electronic resources and services available in the library during their period of studies in both the University of Calabar and the University of Cross River State. The University of Calabar Library has subscribed to several databases including EBSCOhost, ProQuest and African Journal Online (AJOL) with over 10,000 digitized resources for users while the University of Cross River State has a well-gazette electronic library that provides numerous internet services to students. With all the efforts made by these institutions, students still depend more on Google for information for their studies, term papers and research.

Government agencies and parastatals such as Tertiary Education Trust Fund (TETFUND), and Niger Delta Development Commission (NDDC) have made considerable efforts to develop Information and Communication Technology driven academic libraries in Universities, the National University Commission (NUC) and other professional bodies have made available electronic information resources and corresponding Information and Communication Technology platform in academic libraries, a prerequisite for accreditation of academic programmes in Nigerian Universities, this situation persists. It becomes worrisome to know the cause of this problem.

This can be accomplished through age, educational background as well as through the effective use of information and communication technology among library users. This study was conducted against this backdrop to ascertain the implementation of information and communication technology among library users at the University of Calabar (UNICAL) and the University of Cross River State (UNICROSS), Nigeria.

## Hypothesis

The purpose of this study was to examine age and educational background in the utilization of Information and Communication Technology among undergraduate

library users in Cross River State Public Universities. Specifically, the study sought to:

1. Influence of age on utilization of information and communication technology among undergraduate library users in Cross River State Public Universities libraries.

2. Influence of educational background on utilization of information and communication technology among Undergraduate library users in Cross River State Public Universities.

**Literature Review**
**Age and Utilization of ICT among Library Users**

Age, conventionally is seen as the length of time during which a being or thing has existed: length of life or existence to the time spoken of or referred to. Age has been reckoned as important factors which influence the library user's preference for information and communication technology.

Ogunjimi, Ntui, and Undie, (2022) conducted a study that investigated the influence of socio-demographic variables such as age, level of education, belief, and gender on the utilization of ICT among library staff in university libraries in Cross-River and Akwa-Ibom States, Nigeria. To carry out this study, three research objectives that were later translated to hypotheses were generated based on age, gender, level of education, and belief, to guide the research. Literature relating to the variables selected was reviewed to cover both conceptual and empirical sources. The Ex-post facto research design was utilized for the study. A sample of 461 respondents was drawn from six university libraries using the purposive (census) sampling technique. A structured questionnaire titled, 'Socio-demographic Variables and Utilization of Information and Communication Technology for Library Services (SDVUICTLS)' was used as the main instrument for data collection. The tool was subjected to face and content validation by experts in Test, Measurement and Evaluation Faculty of Education, University of Calabar. The reliability coefficient ranged from 0.75 to .88 and was established through Cronbach's Alpha method. The hypotheses were tested at .05 alpha levels. The data analysis techniques used were One-way Analysis of Variance (ANOVA), and independent t-test. The results of data analyses revealed that age (F=8.195), level of education (F = 5.232), and belief (F = 4.242), significantly influenced utilization of ICT by library staff in the university libraries, while there was no significant influence of gender t=.252) on the utilization of ICT by library staff for library services. Based on these findings, it was recommended that library management/ parent institutions should embark on

aggressive training and retraining of staff especially those that are 40 years and above with special reference to utilization of ICT for the provision of services in the libraries. The study equally recommended that Librarians should make a personal effort to train themselves with or without the assistance of the management because this will make them more relevant and effective in delivering library services to library users.

Likely, Oyedipe & Popoola (2019), conducted a study to investigate the influence of demographic factors (age and job status), level of ICT skills possessed by respondents and ICT use on task performances of library personnel. The study employed a correlation design. Thirteen public universities were purposely selected while total enumeration was adopted to study 248 library personnel made up of librarians and library officers in public university libraries in South-west, Nigeria. Data was collected by questionnaire. The study established a significant positive correlation between age, job status, ICT skills and task performance. Also, the Anova test found a significant joint influence of age, job status, ICT skills and ICT use on the task performances of respondents. The study further indicated that age, job status, ICT skills possessed by respondents and ICT use had relative significant influence on task performances of respondents. It is therefore recommended that, library personnel must leverage their demographics positively to bring about positive disposition to their jobs while all categories of staff must ensure they possessed the requisite ICT skills that will ginger ICT use for effective task performance.

**Educational Background and Utilization of ICT Among Library Users.**

Education generally is fundamental to the development of knowledge, economy and society in all nations. Therefore, education shall continue to be highly rated in national development plans as the most important instrument of change. Education, apart from being the most powerful instrument for social progress, is also the greatest yet known to man for high personal development. The fundamental considerations upon which all institutions are established are productivity and efficiency made possible through education.

Vera, and Ufuoma, (2021) carried out a study that investigated the utilization of information and communication technology-based information resources in library user education programmes in South-South Nigeria. Four research questions and one hypothesis guided the study. A descriptive survey research design was adopted for the study. The population of the study comprised 1022 respondents which consist of 62 staff and 960 library users. The instrument

for data collection was a questionnaire with a four-point rating scale and observation checklist. Tools used for data analysis of research questions were frequency, percentage, mean and standard deviation; a t-test was used to test the null hypothesis at the selected probability of 0.05 level significance. The findings revealed that the ICT facilities available are limited for effective utilization of ICT-based information resources in library user education programmes. The study reveals that ICT-based resources listed in the table were utilized to a high extent in SouthSouth colleges of education libraries for user education programmes. It also shows that poor funding was the major challenge of the utilization of ICT-based resources for user education programmes in colleges of education libraries under study.

Mushtaq and Arshad (2022) conducted a study that investigated public library users' most frequent and least frequent activities in the library and demographic differences in the use of public libraries. The study also explored library users' perceived importance of library resources, services and the value of the library as a place. Quantitative research design and survey research method were used to achieve the objectives of the study. A multistage sampling technique was employed to approach the targeted population. In the first stage, ten functional libraries of Lahore were selected purposively. The targeted population was users of the ten public libraries of the Punjab, Lahore. In the second stage, convenience sampling was used to collect data from public library users. The instrument of the research study was the questionnaire and it was developed with the help of the literature and administrated personally. The questionnaire was distributed to 384 public library users of the Lahore district and 301 questionnaires were returned out of 384. The results of the study showed that library users frequently visited the library to read personal books and for examination preparation; however, they never or rarely used e-databases, photocopy and printer services, computer stations, the internet, library catalog and socialization with friends. Significant differences were found among public library users in their public library use based on gender, age, designation and academic qualification. The library collection played a very important role in developing the community's reading habits, supporting academic achievements and self-grooming. The results of the study suggest that public librarians can expand library reading hall space and provide a comfortable reading environment for the users. Library community programs are helpful in lifelong learning; therefore, the library should organize community programs (i.e. storytelling sessions, workshops and interactive sessions) for their users. Public libraries can

strengthen their services by considering demographic differences in public library use.

**Research Methodology**

The design used for this study is the  expost-facto research design. The Population of the study comprised 6808 registered library users in two universities which is University of Calabar (UNICAL) and University of Cross River State (UNICROSS) of 2021/2022 academic session. The study adopted the multi-stage approach. The researcher utilized a combination of stratified sampling and purposive sampling. Firstly, the students in the study area were stratified based on their year of study. Secondly, the researcher went to each of the schools purposively and selected only registered library students of 2021/2022 academic session. The sample of the study was 667 which represents 10% of the population. 387 undergraduate registered library users for the University of Calabar(UNICAL) and 280 undergraduate registered libraries for University of Cross River (UNICROSS).

To ascertain the reliability of the instrument a trial test of the instrument was administered to fifty (50) users from Arthur Javis university academic library who were not part of the study but similar to the respondents in the study. The data obtained from the trial testing was analyzed to establish its internal consistency using Cronbach alpha reliability ranged from .77 to .83. Hence, the instrument was adjudged reliable enough for the study.

**Table 1:  Population distribution of university libraries and library users of the study**

| S/N | Names of university libraries | Population of users |
|-----|-------------------------------|---------------------|
| 1 | University of Calabar library | 3872 |
| 2 | University of Cross River State library | 2808 |
| | Total | 6880 |

**Presentation and interpretation of the result**
**Hypothesis one**

Age does not significantly influence utilization of information and communication technology among library users in Cross River State. The independent variable is age categorized as those below 30yrs, those within 30-40yrs and those above 40yrs while the dependent variable is utilization of information and communication technology, measured continuously. To test this hypothesis, One way Analysis of Variance  was used, and the result as presented in Table 6 shows that (F=4.739 p=.009). Since p (.000) is less than p (.05), this

implies that there is a significant influence of age on utilization of information and communication technology among libraries users. A post hoc analysis was carried out using Fishers Least significant difference (LSD) and the result as presented in Table 7 showed that Cursory look at the means of the group showed that the mean value of those 40yrs (X=14.13) is greater than the mean of those between 30-40yr (X=13.05) and those below 30yrs (X=13.05). This implies that those above 40yrs utilized the library better than those of other age groups. Hence, the null hypothesis is rejected, and the alternate hypothesis upheld. Implying that Age, has a significant influence on utilization of Information and Communication Technology among library users in Cross River State.

**TABLE 2 One way analysis of variance of the influence of age on utilization of information and communication technology among library users in public University libraries in Cross River**

| Age | N | Mean | Std. Dev | Std. Error | | |
|---|---|---|---|---|---|---|
| below 30yrs | 312 | 13.0577 | 3.69015 | .20891 | | |
| 30-40yrs | 221 | 13.0588 | 3.45111 | .23215 | | |
| Above 40yrs | 118 | 14.1356 | 2.63415 | .24249 | | |
| Total | 651 | 13.2535 | 3.45948 | .13559 | | |
| Source of variation | Sum of Squares | | Df | Mean Square | F-ratio | Sig. |
| Between Groups | 112.152 | | 2 | 56.076 | 4.739 | .009 |
| Within Groups | 7667.027 | | 648 | 11.832 | | |
| Total | 7779.180 | | 650 | | | |

\*. The mean difference is significant at the 0.05 level.
Hypothesis two

Educational qualification does not significantly influence utilization of information and communication technology among library users in Cross River State. The independent variable is educational qualification categorized as those having primary, secondary and tertiary educational qualification while the dependent variable is utilization of information and communication technology, measured continuously. To test this hypothesis, One way Analysis of Variance was used, and the result as presented in Table 9 shows that (F= 1.525, p=.218). Since p (.218) is greater than p (.05), this implies that there is no significant influence of educational qualification on utilization of information and communication technology among libraries users. Hence, the null hypothesis is accepted.

**TABLE 3: One way analysis of variance (ANOVA) result of the influence of educational qualification on utilization of information and communication technology among library users**

| Qualification | N | Mean | Std. Dev | Std. Error | | |
|---|---|---|---|---|---|---|
| Primary level | 321 | 13.2991 | 3.13413 | .17493 | | |
| Secondary level | 133 | 12.8120 | 3.23136 | .28019 | | |
| Tertiary level | 197 | 13.4772 | 4.05394 | .28883 | | |
| Total | 651 | 13.2535 | 3.45948 | .13559 | | |
| Sum of variation | Sum of Squares | | Df | Mean Square | F-ratio | Sig. |
| Between Groups | 36.442 | | 2 | 18.221 | 1.525 | .218 |
| Within Groups | 7742.738 | | 648 | 11.949 | | |
| Total | 7779.180 | | 650 | | | |

**Discussion of findings**

One of the objectives of the study was to determine the influence of gender on lecturers' use of information and communication technology in library schools in Southeast and South-South among others. The result showed that both male and female lecturers use information and communication technology because of their age. This was evident from the fact that the total agreement has 97(6.9%) and disagreement had a total of 48(33.1%). From the result it was seen that age did not influence the use of information and communication technology by lecturers, thus implying that intervention programmes aimed at facilitating information and communication technology adoption and use in library schools in Nigeria's higher institutions in south-east and south-south zones of Nigeria do not necessarily have to be targeted at lecturers in specific age brackets. The findings of the study were contrary to that of Unegbu, Amaechi, Njoku and Opara (2015) who investigated the influence of socio-demographic variables on the use of formation and communication technology by lecturers in library schools in Southeast and South-South zones of Nigeria.

Similarly, the findings of the study were in line with that of Unegbu, Ogugua, Nnadimele and Nse, (2019) who examined the influence of demographic factors on the use of digital libraries in private universities in Nigeria with a focus on Babcock and Covenant University. One of the objectives was to determine the significant influence of age on the use of digital libraries by postgraduate students. This study employed a survey research approach. Three hundred and fifteen (315) copies of the structured questionnaire were randomly distributed among respondents. Data were analyzed using percentages and ANOVA. The study found out that there is a significant difference in the utilization of

information and communication technology by age of students from both universities.

### Educational qualification and utilization of ICT among library users

This showed that the user's educational qualification does not influence the use of the ICT library. This is because, with the rise in global awareness and knowledge explosion, everybody is concerned with acquiring information from the library despite educational qualifications. The findings of the study are in line with those of Timothy (2014) who evaluated the effect of educational qualification on a lecturer's level of utilization of electronic information resources in the University of Ghana. The findings of this study indicated that many respondents do use electronic resources frequently.

The findings of the study were also in line with those of Amusa and Atinmo (2016) who conducted a study on the availability, level of use and constraints to the use of e-resources by lecturers in public universities in Nigeria. The findings showed that several electronic information resources on law are available for use by law lecturers and students from their producer, for example, LexisNexis academic, criminal justice abstracts, Hein Online, and Weslaw among others. However, many of them are not readily available to the respondents in the respective universities and the availability of resources has an impact on their use. Consequently, the resources are less used by the respondents.

Similarly, the findings aligned with that of Mahlau, et al (2017) who sought to find out if there is a significant difference in the use of electronic resources skills on students' comprehension of the subject matter by 300 university school lecturers of different levels of educational qualification in New York City, United States of America. From the result of the statistical analysis, it was observed that the lecturers with higher educational qualifications who utilized electronic resources frequently had higher testing skills than their counterparts identified with lower educational qualifications. The study concluded that there is a significant difference in the use of electronic resources by university lecturers of different educational levels and ranks.

### Conclusions and Recommendations

Based on the findings of the study, it was concluded that attitude to school and educational background did not significantly influence the utilization of information and communication technology among library users in Cross River State. The study recommended that younger users should be encouraged to intensify their use of the library so as to made use of modern facilities and university should enforce the registration of students with the library compulsory from the first year of study.

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