

Perceived Influence of Electronic Resources Utilization on the Academic Performance of Adult Education Students in the University of Benin

Elvis Stephen OSEMWENGIE & Isoken Iyore OVIawe

Department of Adult and Non-formal Education
University of Benin, Benin City, Nigeria
Stephen.Osemwengie@uniben.edu

Abstract

This study investigates perceived influence of electronic resources utilization on the academic performance of adult education students in the University of Benin. Four (4) research questions were raised to guide the study: A sample size of ninety six (96) respondents which comprises 10% of the total population was selected through simple random sampling technique. The questionnaire was the major instrument used for data collection. The questionnaire were designed and validated by experts in the department of Adult and Non-formal Education Faculty of Education, University of Benin. Data collected were analysed using descriptive statistics such as table; frequencies counts, and simple percentages. Findings from the study revealed, amongst others, that the various electronic resources mostly used by adult education students of the University of Benin are; mobile phones, desktop computers, laptops and electronic books. It was also revealed that adult education students of the University of Benin make use of electronic resources daily, that electronic resources help to influence academic performance of students by enabling them to have access to quality information, sources for additional materials online that helps them to complete their assignments. From the findings of the study, it was recommended that, the university should give priority to the development of Information and Communication Technologies in the library by subscribing to relevant educational databases. It was further recommended that information retrieval skills using information technology should be included in the curriculum for the undergraduate students to be able to make use of these electronic resources effectively.

Keywords: Impact, Electronic Resources, Utilization, Academic Performances

Introduction

The introduction and advanced use of information and communication technologies over the years have brought the digitalization, reformation and transformation of libraries into electronic information service systems. This scenario has brought radical changes in the way information is gathered, assembled and utilized in today's libraries by the users. This is given also that the advancement in computer application to information processing has increased the availability of

electronic information resources, and services in today's academic libraries. The development and availability of the Internet service has contributed to increasing the impact that information has on people by placing vast information resources at people's door steps (Odumegwu, 2014). For example, many libraries now have print versions and also subscribe to electronic full-text versions of materials online.

Isiakpona and Ifijeh (2012) noted that availability of electronic resources in libraries does not necessarily imply its usage because the source may be available but access to use is prevented for many reasons. Therefore, strategies are being made globally to promote the accessibility and usage of the electronic information resources in all formats and forms by improving on the deficiencies and features of underdevelopment such as power failure, machines breakdowns, lack of spare parts, and technicians which intermittently stall the performance of the modern gadget of information storage and transfer in developing countries like Nigeria.

In order to properly access and utilize the ever-growing range of electronic information resources, students, scholars and users must acquire and practice the skills necessary to exploit them. Tyagi (2011) argued that the ability to use electronic information resources efficiently depends on basic computer skills, knowledge of what is available and how to use it, and ability to define a search problem. How students attain the skills and knowledge needed to utilize Electronic Information Resources effectively for academic purposes could depend on many factors, such as their disciplines, academic and financial status, interest, and training, among others. This factor could potentially impinge on a student's placing in his or her academic pursuit and performance.

According to the Cambridge University Report (2003), academic performance is the performance level in examination and major modules, as well as the outcome of education, and also the extent to which a student, teacher or institution has achieved their educational goals. It refers to how students deal with their studies and how they cope with or accomplish different tasks given to them by their teachers. In educational institutions, success is measured by academic performance, or how well a student meets standards set out by the institution. Academic performance can be measured in several ways such as examinations, class assignment, test, group seminar, and many others. Fleetwood & Shelley (2000) assert that academically successful students will have more employment opportunities than those with less education. Furthermore, the number of jobs

requiring a college education is expected to grow more than twice as fast as those not requiring a college education over the next ten to twenty years. Beyond work and wages, Brown (1999) discussing from the American point of view suggest that academic success is important because the working class will need higher levels of education to tackle the technologically demanding occupations of the future.

Also, the emergence and utilization of electronic information resources is the most recent transformation and development affecting scholarly communication in academic community. Consequently, the academic community has experienced tremendous changes during these years, assuming new dimensions influenced by technology driven applications, with libraries having witnessed a great metamorphosis in recent years both in their services and structures (Ani & Ahiauzu, 2008). These dramatic changes include the way in which information is been provided, assessed and utilized by users. Armstrong (2001), opines that the pace at which information resources are being produced and converted into an electronic form for maximum utilization by undergraduates in tertiary institutions is greater now than in previous years, and also acknowledged that higher education is changing rapidly with the advent of utilization of electronic information resources.

Similarly, Shuling (2007), opines that electronic information has gradually become a major resources in every university library in recent years. The growth and diversity of electronic resources, especially e-journals, has led many to predict the extinction of the printed journal. There has been a rapid growth in electronic information resources, and libraries of all types including academic libraries, have been spending huge amount of money on subscriptions to access various online databases for the utilization of their clientele. Electronic information resources provide many advantages over traditional print- based resources (Tyner, 2014).

Electronic resources also known as e-resources are accessed electronically and are on different subjects. Electronic resources can be a bibliographic or full text database that allows you to search for relevant articles in your subject area. E-resources includes electronic journals, online databases (Agora, Jstor, Ebscohost, Ajoel, Hinari), electronic books, locally loaded database, website, CD-ROM , electronic text, e-abstracting and indexing databases such as MEDLINE, E-news, E-images, E-music etc. These electronic resources are used mainly for reading and research purposes.

Some of the electronic resources are in closed-access the institution concern pay for access fee to enable their student's gain-access to the online resources.

Amori (2003) opined that e-resources such as e-journal, e-book, CD ROM databases, online databases and web-based resources when effectively utilized constitute an important input in the information services in libraries. They help in providing relevant information required by students, which if properly utilized can help in improving reading culture and improve academic excellence. However, Ireyefoju (2002) stated that the provision of e-resources in the right quantity has been regarded as a major input required for high information services provision.

The utilization of Electronic Resources can be useful tool to enhancing a student's academic performances. The usefulness of electronics resources to academic performances of students could depend on a lot of already mentioned factors, but specifically the approach of the students to its integration to their studies. How one utilizes electronic resources largely determines whether the tool is beneficial to one's academic performance or proves detrimental instead. It is assumed that the utilization of electronic resources could positively affect a student's endeavours and in turn influence performance. In view of the foregoing, this study investigates the influence of electronic resources utilization on the academic performance of adult education students in the University of Benin. In this wise, intends to identify the various electronic resources used by full-time adult education students of the University of Benin, determine how often full-time adult education students of the University of the Benin make use of electronic resources, ascertain the influences of the use of electronic resources on the academic performance of full-time adult education students of the University of Benin and find out the factors hindering the effective use of electronic resources for improved academic performance of full-time adult education students of the University of Benin

Statement of the Problem

The migration of knowledge from mainly print resources to both print and electronic resources compelled the John Harris library of the University of Benin to think in the lines of adopting technology not only to supplement the already stretched print resources but also to offer more up to date alternative. The field of education, which is the core focus of the University, is ever dynamic and the print resources at times become obsolete as soon as they are printed. This led the

university to migrate to electronic resources that are updated almost in real time and available to the users. The University of Benin has invested in electronic resources as alternatives to the print materials available to help assist students in their studies. These include electronic books, e-journals, CD-ROMs and online databases. Despite the massive investment on the electronic resources, it has been observed that the resource utilization level is still low among the students of the university. This has led to overreliance on the printed materials that are becoming over stretched due to increasing students' population. Hence this study, investigates perceived influence of electronic resources utilization on the academic performance of adult education students in the University of Benin

Research Questions

The following research questions were raised to guide the study:

1. What are the various electronic resources used by full-time adult education students of the University of Benin?
2. How often do full-time adult education students of the University of the Benin make use of electronic resources?
3. What are the influences of the use of electronic resources on the academic performance of full-time adult education students of the University of Benin?
4. What are the factors hindering the effective use of electronic resources for improved academic performance of full-time adult education students of the University of Benin?

Methodology

The descriptive survey research design was used for the study. The entire population was used for the study. This method was considered appropriate for the research because it affords the researcher the opportunity to the general assessment of opinions, attitudes and feelings of people about the problem under study. The population of this study consists of all the students of the department of Adult and Non-formal Education, University of Benin, with a population of nine hundred and fifty-five (955) undergraduate students. The sample size for the study is Ninety six (96) respondents which is the 10% of the total population selected through simple random sampling technique. The questionnaire titled: Perceived Influence of Electronic Resources Utilization on the Academic Performance Questionnaire (PIERUAPPQ). The questionnaire comprises of Section "A" and "B". the section 'A' of the instrument focuses on gathering personal

information of the respondents such as age, sex, occupation, educational qualification among others and section B designed or geared towards seeking information on the issues raised in the research questions. The questionnaire was a Eighteen (18) items instrument designed along the line of the modified Likert scale made up of four (4) levels of assessment namely Strongly agreed, Agreed, Disagreed and Strongly disagreed. The levels were weighted or assigned 4 points 3points, 2 points and 1 point respectively. In validating the instruments, experts' opinion was adopted. Two experts in the area of psychometrics from the Department of Adult and Non-formal Education Faculty of Education, University of Benin helped to determine the face validity of the instrument. To determine the reliability level of the instrument in generating the required data, copies were pilot-tested through single test giving at a single sitting to thirty (30) respondents selected from the target population. The scores obtained for odd and even number items were correlated using Pearson Product Moment Correlation Statistics. A correlation index of 0.65 was obtained.

Results

The result emanating from the data collected and analyzed were presented as follows:

Table 1: Distribution of responses on the various electronic resources used by adult education students of the University of Benin

S/N	Variable	Frequency	Percentage (%)
1	CD-ROM Databases	05	5.2
2	E-mail services	05	5.2
3	Electronic journals	05	5.2
4	Mobile phones	20	21
5	Electronic books	06	6.2
6	e-audio	05	5.2
7	e-images	05	5.2
8	Desktop computers	20	21
9	Laptops	20	21
10	iPads and/or tablets	05	5.2
Total		96	100

Source: Field Survey, 2024

The result of the analysis as shown in the Table 1 clearly reveals that 05 of the respondents, representing 5.2% of the total responses sampled agreed that various electronic resources used by adult education students is CD-ROM Databases, 05 of the respondents representing 5.2% affirm

that it is e-mail service, 05 of the respondents representing 5.2% agrees that it is Electronic journals, 20 representing 21% agree that it is mobile phones, 06 of the respondents representing 6.2% affirm that it is electronic book. 05 of the respondents representing 5.2% says it is e-audio, 5 of the respondents representing 5.2% affirm that it is e-image, 20 of the respondents representing 21% said that it is desktop computer, 20 of the respondents representing 21% says it is laptops while, 05 of the respondents, representing 5.2% of the total responses agree that it is iPads and/or tablets. From the analysis, it can be deduced that the various electronic resources mostly used by adult education students of the University of Benin are; mobile phones, desktop computer, laptops and Electronic books

Research Question Two

How often do full-time adult education students of the University of the Benin make use of electronic resources?

In proffering answers to the above questions, the researcher gathered and analyzed the relevant data in the instrument precisely those of items 11-14 using percentage statistics and the result is as presented in Table 2.

Table 4.2 Data on how often full-time adult education students of the University of the Benin make use of electronic resources

S/N	Variables	SA (%)	A (%)	D (%)	SD (%)
11	I use electronic resources daily for my assignment	36 (38%)	60 (63%)	Nil (0)	Nil (0)
12	I use electronic resources weekly to current up-to-date information	Nil (0)	Nil (0)	80 (83%)	16 (17%)
13	I use electronic resources twice a week access to quality information	Nil (0)	Nil (0)	50 (52%)	46 (48%)
14	I use electronic resources monthly to sources for additional materials online	Nil (0)	Nil (0)	70 (73%)	26 (27%)

Source: Field Survey, 2024

From the data on Table 2 above, it was revealed that 38 (68%) and 60 (63%) of the respondents Strongly Agreed and Agreed respectively that adult education students of the University of Benin

make use of electronic resources daily for their assignment. Accordingly, none of the respondents Disagreed or Strongly Disagreed on this variable.

In ascertaining whether they use electronic resources weekly to current up-to-date information, it was observed that 80 (83%) and 16 (17%) of the respondents Disagreed and Strongly Disagreed respectively on the variable while none of them had a different position. Similarly, it was also found that 50 (52%) and 46 (48%) of the respondents Disagreed and Strongly Disagreed respectively that use electronic resources twice a week access to quality information. There was however no respondent that Strongly Agreed and Agreed on this variable. Again, the researcher was interested in finding out if they use electronic resources monthly to sources for additional materials online and from the responses gathered, 70 (73%) and 26 (27%) Disagreed and Strongly Disagreed respectively while none responded otherwise. On the basis of the analysis, it can therefore be deduced that adult education students of the University of Benin make use of electronic resources daily

Research Question Three

What are the influences of the use of electronic resources on the academic performance of full-time adult education students of the University of Benin?

In proffering answers to the above questions, the researcher gathered and analyzed the relevant data in the instrument precisely those of items 15-18 using percentage statistics and the result is as presented in Table 3.

Table 3: Data on the influences of the use of electronic resources on the academic performance of full-time adult education students of the University of Benin

<i>S/N</i>	<i>Variables</i>	<i>SA</i> <i>(%)</i>	<i>A</i> <i>(%)</i>	<i>D</i> <i>(%)</i>	<i>SD</i> <i>(%)</i>
15	It helps improved academic performance as a result of access to quality information	80 (83%)	16 (17%)	Nil (0)	Nil (0)
16	It helps improved academic performance as a result of access to current up-to-date information	80 (83%)	16 (17%)	Nil (0)	Nil (0)
17	It helps improved academic performance of adult learners because it helps them to sources for additional materials online	50 (52%)	46 (48%)	Nil (0)	Nil (0)
18	It helps improved academic performance of adult learners because it them to complete assignment	70 (73%)	26 (27%)	Nil (0)	Nil (0)

Source: Field Survey, 2024

A critical view of Table 3 above, revealed that 80 (83%) and 16 (17%) of the respondents Strongly Agreed and Agreed respectively that the use of electronic resources helps improved their academic performance as a result of access to quality information. Accordingly, none of the respondents Disagreed or Strongly Disagreed on this variable. In ascertaining whether it helps improved academic performance as a result of access to current up-to-date information it was observed that 80 (83%) and 16 (17%) of the respondents Strongly Agreed and Agreed respectively on the variable while none of them had a different position.

Similarly, it was also found that 50 (52%) and 46 (48%) of the respondents Strongly Agreed and Agreed respectively that it helps improved academic performance of adult learners because it helps them to sources for additional materials online. There was however no respondent that Disagreed or Strongly Disagreed on this variable. Again, the researcher was interested in finding out if It helps improved academic performance of adult learners because it them to complete assignment and from the responses gathered, 70 (73%) and 26 (27%) Strongly Agreed and Agreed respectively while none responded otherwise. On the basis of the analysis, it can therefore be deduced that electronic resources help to influence academic performance of students by enabling them to have access to quality information, update information, source for because it helps them to sources for additional materials online and helps them to complete their assignment.

Research Question Four

What are the factors hindering the effective use of electronic resources for improved academic performance of full-time adult education students of the University of Benin?

In proffering answers to the above questions, the researcher gathered and analyzed the relevant data in the instrument precisely those of items 19-22 using percentage statistics and the result is as presented in Table 4.

Table 4: Data on the factors hindering the effective use of electronic resources for improved academic performance of full-time adult education students of the University of Benin

<i>S/N</i>	<i>Variables</i>	<i>SA</i> <i>(%)</i>	<i>A</i> <i>(%)</i>	<i>D</i> <i>(%)</i>	<i>SD</i> <i>(%)</i>
19	It is time consuming	80 (83%)	16 (17%)	Nil (0)	Nil (0)
20	Lack of IT knowledge to effectively utilize the services	80 (83%)	16 (17%)	Nil (0)	Nil (0)
21	Power failure	50 (52%)	46 (48%)	Nil (0)	Nil (0)
22	Using electronic resources often distracts me from doing my other work	70 (73%)	26 (27%)	Nil (0)	Nil (0)

Source: Field Survey, 2024

A critical view of Table 4 above, revealed that 80 (83%) and 16 (17%) of the respondents Strongly Agreed and Agreed respectively that the use of electronic resources is time consuming. Accordingly, none of the respondents Disagreed or Strongly Disagreed on this variable. In ascertaining whether lack of IT knowledge to effectively utilize the services it, was observed that 80 (83%) and 16 (17%) of the respondents Strongly Agreed and Agreed respectively on the variable while none of them had a different position. Similarly, it was also found that 50 (52%) and 46 (48%) of the respondents Strongly Agreed and Agreed respectively that Power failure affects the use of electronic resources. There was however no respondent that Disagreed or Strongly Disagreed on this variable. Again, the researcher was interested in finding out if the use of electronic resources often distracts me from doing my other work and from the responses gathered, 70 (73%) and 26 (27%) Strongly Agreed and Agreed respectively while none responded otherwise. On the basis of the analysis, it can therefore be deduced that factors hindering the effective use of electronic resources for improved academic performance students in the University

of Benin are; inadequate time, Lack of IT knowledge to effectively utilize the services on the parts of the students, power failure and distractions

Discussion of Findings

The result of this study has been quite instructive, informative and revealing. Base on the analysis of data collected on the opinion of the respondents on: perceived influence of electronic resources utilization on the academic performance of adult education students in the University of Benin. In the study, four (4) research questions were raised and examined. The first research question revealed that the various electronic resources mostly used by adult education students of the University of Benin are; mobile phones, desktop computer, laptops and Electronic books. . The findings of the agrees with Amankwah (2014) where it was revealed that the types electronic resources used by students of higher institution of learning are: desktop computers, laptops, iPads and/or tablets and mobile phones.

Findings from research question two revealed that adult education students of the University of Benin make use of electronic resources daily. This finding corroborate that of Jibril, Alhassan and Sharon (2015) where they asserted that the frequency of use is high with 62.31% of the respondents using it either daily or weekly

Findings from research question two revealed that electronic resources help to influence academic performance of students by enabling them to have access to quality information, update information, source for because it helps them to sources for additional materials online and helps them to complete their assignment. This corroborates findings by Okello-Obura and Magara (2008) who investigated electronic information access and utilization at the East African School of Library and Information Science, Makerere University, Uganda. Their study suggested that users derived many benefits from electronic resources by gaining access to a wider range of information, and this improved academic performance as a result of access to quality information. Furthermore, the study also revealed that the undergraduate students used the electronic resources for various purposes, such as online application/registration, research, communication with friends and colleagues, sourcing materials for project writing, completing assignments, and for other personal purposes.

Findings from research question four revealed that factors hindering the effective use of electronic resources for improved academic performance students in the University of Benin are; inadequate time, Lack of IT knowledge to effectively utilize the services on the parts of the students, power failure and distractions. This finding is in consonance with the study conducted by Majid and Tan (2002) where they opined that electronic database had not been equally patronized by library patrons and students due to; lack of awareness of electronic resources, lack of time to access and too many passwords to remember, were mentioned as the reasons for the low patronage of the databases

Conclusion

Based on the findings of the study, it was concluded that the various electronic resources mostly used by adult education students of the University of the Benin are; mobile phones, desktop computer, laptops and Electronic books, that adult education students of the University of Benin make use of electronic resources daily, that electronic resources help to influence academic performance of students by enabling them to have access to quality information, source for additional materials online and helps them to complete their assignments, that factors hindering the effective use of electronic resources for improved academic performance among full-time undergraduate students in the University of Benin are; inadequate time, lack of IT knowledge to effectively utilize the services on the parts of the students, power failure and distractions

Recommendations

Based on the conclusion drawn from the findings, the following recommendations are hereby proffered:

1. Parents and guardian should ensure they make electronic resources such as; mobile phones, desktop computer, laptops and electronic books etc. available for their children immediate they get admission into the university
2. Information retrieval skills using information technology should be included in the curriculum for the undergraduate students to be able to make use of these electronic

resources effectively. Hands-on training on the use of these resources should be actively promoted.

3. More sensitization should be directed towards our students for them to know the benefits of using electronic resources for academic purposes and how it can help to enhance their learning capacities.
4. Since electronic utilization depends heavily on constant power, the university authority should make provision for alternative power source such as solar system or possible generate their own power to make electricity available at all times.
5. Adult education students of the University of Benin make use of electronic resources on daily basis, the university authority should make wireless network available for students in and around the university environment.

References

- Adika, G. (2003). Internet use among Faculty Members of Universities in Ghana. *Library Review*, 52, 29-37.
- Ajuwon, G. A. (2003). Computer and Internet Use by First Year Clinical and Nursing students in a Nigerian Teaching Hospital. *BMC Medical Informatics and Decision Making*, 3, 10.
- Ali, N. (2005). The use of electronic resources at IIT Delhi Library; a study of search behaviours. *The Electronic Library*, 23, 691-700.
- Alreck, P. & Settle, R. B. (1985). *The survey research handbook*. Illinois; IRWIN.
- Armstrong, C. (2001). A study of the use of electronic information system by higher education students in the UK program: electronic library and information systems. 35(3). UK. Retrieved 02 20, 2017, from www.emeraldinsight.com/insight/view
- Ani, O. E., & Ahiauzu, B. (2008). Towards effective development of electronic information resources in Nigeria University libraries. *Journal of Library Management*, 29(1&2), 504-514
- Ankrah, E. (2013). Customer satisfaction of electronic products and services in Ghanaian banks. *Information and Knowledge Management*, 3(1), 7-18.
- Ansari, M. N. & Zuberi, B. A. (2010). Use of Electronic Resources among Academics at the University of Karachi. *Library Philosophy and Practice*, 385.
- Appleton, L. (2006). Perceptions of electronic library resources in further education. *The Electronic Library*, 24, 619-623.
- Asamoah-Hasan, H. (2003). Information: the oil in the wheel of national development. *Ghana Library Journal*, 15, 1-14.
- Association of College & Research Libraries (2005). *Information literacy competency standards for higher education*. Chicago: American Library Association

- Bentil, W. (2011). *The Use of Electronic Resources in Ghanaian Universities: a comparative study of the University of Cape Coast and the Central University College*. (An Unpublished M. Phil thesis). Department of Information Studies, University of Ghana, Legon.
- Borrego, A. (2007). Librarians' perceptions on the use of electronic resources at Catalan academic libraries: results of a focus group. Retrieved from <http://www.diposit.ub.edu/dspace/bitstream>
- Burns, N. & Grove, S. K. (1999). *Understanding Nursing Research*. W.B: Saunders Company.
- Callinan, J. E. (2005). Information-seeking behavior of undergraduate biology students: A comparative analysis of first year and final year students in University College Dublin. *Library Review*, 54, 86-99.
- Chisenga, J. (2004). *ICT in Libraries: An overview and general introduction to ICT in libraries in Africa*. Retrieved from
- Creswell, J. (Eds.) (2003). *Research design: qualitative, quantitative and mixed methods approaches*. London: Sage publications.
- Dadzie, P. S. (2005). Electronic Resources: Access and Usage at Ashesi University College. *Campus-Wide Information Systems*, 22, 290 – 297.
- Dilek-Kayaoglu, H. (2008). Use of electronic journals by faculty at Istanbul University, Turkey: the results of a survey. *Journal of Academic Librarianship*, 34, 239-47.
- Egberongbe, H. S. (2009). *The use of Electronic Resources in Nigerian Universities*. (Unpublished MPhil thesis). Department of Information Studies, University of Ghana, Legon.
- Graham, S. R. (2003). Historians and electronic resources: a citation analysis. *JALHC*, 3, 18 - 24.
- Gross, M. & Latham, D. (2009). Undergraduate perceptions of information literacy: Defining, attaining, and self-assessing skills. *College & Research Libraries*, 70, 334-350.
- Ozoemelen, O. A. (2009). Use of electronic resources by postgraduate students of the Department of Library and Information Science of Delta State University, Abraka, Nigeria. *Library philosophy and practice*, 301.
- Rehman, S. & Ramzy, V. (2004). Awareness and use of electronic information resources at the Health Science Centre of Kuwait University. *Library Review*, 53, 150-156.
- Rogers, E. M. (2003). *Diffusion of Innovations*. London, New York: The Free Press.
- Sajjad ur Rehman, V. R. (2004). Awareness and use of electronic information resources at the health sciences center of Kuwait University. *Library Review*, 53, 150 – 156. Retrieved from: <http://dx.doi.org>
- Salisbury, F. & Ellis, J. (2003). Online and face-to-face: evaluating methods for teaching information literacy skills to undergraduate arts students. *Library Review*, 52, 209 – 217.
- Shaheen, M. A. F. A. (1999). Computer literacy and use of electronic information sources by Academics. *Asian Libraries*, 8, 100 – 111.
- Shuling, W. (2007). Investigation and analysis of current use of electronic resources in university libraries. *Library Management*, 28, 72-89.
- Swain, D. K. & Panda, K. C. (2009). Use of electronic resources in business school libraries of an Indian state: a study of librarians' opinion. *The Electronic Library*, 27, 74-85.
- Shuling, W. (2007). Investigation and analysis of current use of electronic resources in the university libraries. *Library management*. 28-1/2. Retrieved 02 25, 2017, from <http://www.emeraldinsight.com/insightviewcontentservlet>

- Tyner, S. (2014). Use and awareness of electronic resources at IIT Roorkee. *Journal of Library and Information Science*, 1-20
- UPSA-1 (2015) About UPSA – History. Retrieved 01/01/2015 from <http://www.upsa.edu.gh/pages/about-upsa/history>
- UPSA-2 (2015) Teaching learning resources. Retrieved 01/01/2015 from <http://www.upsa.edu>.
- Weiner, S. G. (2003). Resistance to change in libraries: Application of communication theories. *Libraries and Academy*, 3(1), 69-78.
- Whitaker, K. (1993). *The Basics of Library-based User Services*. Michigan; Library Association, 133.