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# ENVIRONMENTAL FACTORS AS CORRELATES OF USE OF INFORMATION RESOURCES IN PUBLIC UNIVERSITY LIBRARIES IN IMO AND ABIA STATES, NIGERIA.

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**ENVIRONMENTAL FACTORS AS CORRELATES OF USE OF INFORMATION  
RESOURCES IN PUBLIC UNIVERSITY LIBRARIES IN IMO AND ABIA STATES,  
NIGERIA.**

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**Abstract**

The study examined the environmental factors as correlates of use of information resources in public university libraries in Imo and Abia States, Nigeria. It was guided by three research questions and two hypotheses. Survey and linear correlational designs were adopted for the study. A sample of 379 students was drawn from a population of 32,999 registered users of the university libraries studied. Data collected were analysed using mean scores and standard deviation for research question one and Pearson Product Moment Correlation Coefficient (PPMC) for questions two and three. The hypotheses were tested employing t-test statistics at 0.05 level of significance. Findings show that: all types of information resources listed are used in the university libraries studied while very low and insignificant relationship exists between the environmental factors and use of the information resources. Also, while the extent to which the environmental factors relate to use of information resources in the federal university libraries is very low and negative, the extent of relationship is low and positive in the state universities with a significant difference. The study recommended, among others that, the library management under study the environments to find out the detracting factors so as to remove, improve on them or work on their control so as to encourage the use of all the library resources.

**Key Words:** Environmental factors, Information resources, Use of information resource

## **Introduction**

Information plays a central role in the academic advancement of the user community in institutions of higher learning. From primary to tertiary level its pivotal role in positively enhancing academic programmes cannot be over emphasized. It is a raw material which enables researchers to monitor the progress in their disciplines and to learn about developments in other fields of study. Similarly, Bitagi (2013) notes that it is news that comes to the receiver for the first time which enables the receiver to take action according to expectations. To play its role, it is presented to the user community in variety of forms called resources. Information resources therefore are primarily, processed, organized, stored and made accessible to aid users in their reading and research activities. They include books, journals, theses, dissertations, technical report and all related materials in print format, Information and Communication Technology (ICT) and related electronic gadgets. Evidently, information resources are made visible when they are put to use.

Use with regards to the library depicts using of library information resources. It involves reading books/periodicals, surfing the net, getting answers to reference questions, etc. by the library users. Use of information resources enhances effective research among users in universities. The university environment and its library should therefore be conducive and serene to encourage users to use the resources towards actualizing their academic pursuit.

Environment is the totality of elements which individually or collectively establish the requirements which must be met by any library to enhance the use of its information resources. Hoffmann (2015) citing Leipzig opined that environment is the space surrounding a human being which also exerts impact on him and influences his living conditions. Users discover their real selves and abilities to substitute worthy activities for useless and frivolous ones in a desirable system and library environment. In alliance with the above view, Uhegbu (2007) asserts that whether in the general community setting or in the library, the environment is a vital consideration by users and it influences the use of the library. Hence, the elements, surroundings or conditions that make up the environment, must encourage positive library and its information resources utilization.

The elements or environmental factors or ecological factors are changeable factors that are part of the users' working environment. They consist of varied external factors that influence living organisms. Usually, they exist outside the library doors and librarians do not typically

have much control over them. In a university setting, the environmental factors are the non living factors that can affect users' interest in using the library resources. They include: sister libraries, bookstalls, cyber cafes, social activities, lecture rooms, relaxation centers and lecturers teaching methods. These factors can have positive and or negative influences on library use. While they can attract users to the library, they can also make or force users to dislike the use of the library. They are thus expected to be studied or monitored so that their existence does not infringe on users' interest to use the resources. For the purpose of this study, it is vital to understand the environmental factors that influence the use of library resources by students. It is based on this background that this study collected responses on the environmental factors that influence use of information resources in the university libraries studied.

### **Objectives of the Study**

The purposes of this study include to:

1. determine the information resources utilized in the university libraries studied;
2. ascertain the relationship between environmental factors existing in the university libraries studied and use of information resources;
3. determine the extent to which the environmental factors influence the use of information resources in the federal and state university libraries studied.

### **Hypotheses**

The following null hypotheses were formulated and tested at 0.05 level of significance:

1. The coefficient of correlation between the environmental factors and use of library information resources in the universities studied is not significant.
2. The extent of correlation between the environmental factors and use of library information resources obtained from the Federal and State Universities do not differ significantly.

### **Literature Review**

The nature of university programmes require the provision of information resources to compliment teaching, learning and research activities in the university. It also demands that students must do a lot of independent studies on their own using their personal collection and the information resources provided in the library. Use of information resources is an action made by the library patrons. According to Ntui and Udah (2015) it is the practical and maximum use of library resources identified and acquired by a user for the purpose of solving a problem or

achieving a set goal. It is always the major concern of libraries hence Nwokedi and Ogundare (2005) maintained that one of the major objectives of any library is to ensure that maximum use is made of its resources and services. Despite the emphasis placed on use of information resources in libraries, a bizarre state of underutilization is still reported. For instance, Ajiboye and Tella (2007) and Agboola (2010) in their respective studies noted the underuse of most of the library information resources by undergraduate students in University of Botswana and some Nigerian universities. Ojo and Akande (2005) identified the low level of usage of the electronic information resources among students. The obligatory role of university libraries as locations for intensive study cannot be achieved without adequate information resources made available in a conducive environment.

Environment could be external or internal. While the internal environment is an active environment and consists of a collection of other systems and organizations, the external environment comprises those forces and events outside the organization boundaries that impinge on its activities (Palmer & Hartley, 2002). The external environment which is the focus of this study is also called general, remote or macro environment. It includes demographic, economic, political, socio-cultural and ICT development factors. They directly or indirectly influence an organizational (library) performance and growth.

The environment where the university library is established exerts influence on the intellectual expressions of its benefactors and beneficiaries using the variables contained in it. Such variables include: sister libraries, bookstalls, lecture rooms, and cyber cafes, students' hostels, lecturers teaching methods, and university policy. They are the general factors within and around the university which the library cannot easily exert its control. Babalola (2012) opined that environmental factors are the external forces that impede the use of information resources in the library like social interaction, power supply, physical facilities (classrooms), lighting level (natural light), motivation, etc. Other external factors include natural disasters like; earthquakes, volcanoes and forest fires, climatic conditions (harsh sunlight, flood and humidity), social activities, rodents (cockroaches, termites, centipedes, snakes etc.). Knowledge of the variables is crucial to the understanding of the roles they can play in the use of academic (university) libraries.

The application of Information and Communication Technology gadgets is changing management of libraries and information centres and also challenging the use of paper

information resources. Some of the ICTs existing outside the library that affects use of information resources in the library include: online databases, electronic journals, optical storage devices, CD-ROM, DVDs, software (server software, specialty and productivity software etc.) and hardware (computers, printers, scanner, networking components, etc.). They pose a challenge to the use of library resources. Much as technological innovations have increased the users' search horizon and contribute to easy access to information resources, social activities and Internet/cyber cafes around the university environment pose a competition for students' attention and challenge to the use of library resources. Simmond and Andaleeb (2001) noted that social networks in smart phones like Imo, Skype, Viber, Instagram, LinkedIn, Twitter, Flickr, Whatsapp, Facebook etc. and cyber cafes around the university environment take more of today's library user's time than is expected. Gayton (2007) also asserted that increasing use of electronic resources off-campus has resulted in both declining circulation of print materials and reduced use of reference services in academic libraries.

Low reading culture among Nigerians and the undergraduate students as well is a factor that may account for unimpressive use of academic libraries information resources. This attitude though could be inborn may not also be far from lack of interest and support by the teachers and the teaching methods adopted in institutions. Teachers like parents have influence on library and its information resources utilization. Clabo (2002) in his research noted that library use was conditioned by the emphasis teachers placed on the use of library resources to complete assignments, which were primarily textbook oriented. In a similar view Hayelom (2014) in his study also found current teaching-learning system as one factor that makes students not to use the library information resources and services. Just as studies demonstrated that teachers have a positive influence on students' library use, they also could inhibit the use of the library as a result of their failure to give assignments requiring the use of the library and its resources. Therefore the more active teaching methods are applied by the teachers, the more written assignments are given to students and invariably the higher is their use of library resources.

University libraries are facing greater competition from such sources like reading rooms, bookstores, sister libraries and information from publishers and vendors who try to provide some of the services that libraries provide. These competitors, Simmond and Andaleeb (2001) observed, sometimes, provide their services faster and more efficiently, while some students also seem to know more about other libraries than their own institutions' library. In the same vein

Amusa & Iyoro (2013) in their study observed less use of academic libraries due to the availability of, reading-rooms in residence halls and apartments.

Governing authorities are not left out in this clandestine effect on library use. They hold the purse and as an external environment can cause changes in the structure, the attitude of the users and the librarians themselves. They can also serve as agents of political, economic, ethical, social and technological change in institutions of higher learning. For instance, the NUC stipulation of 10% allocation of annual recurrent revenue of universities to libraries is no longer a welcomed support when compared with the present economic recession in the country. This is why Asante (2014) citing Nwokocha, noted that some of the consequences of budget constraints include low patronage; this is to say that libraries and their use grow or shrink with time depending on how much life is infused into them. The academic library is a social service organization that is capital intensive, money is needed for building both its internal and external environment

The extent to which these factors exert influence on users varies from one environment to the other and from one individual to the other. Amusa and Iyoro (2013) in their study found that about 76% of their respondents affirmed that the library environment had a great influence on library use. On the issue of location of the library Hayelom (2014) indicated statistically significant effect of location of library on use of the library information resources. This is because instructor's dormitory/home in Ardaita College is somehow far away from the library.

Librarians operating in these environments must take cognizance of their existence because changes in the external environment for instance affect the organization's internal environment. Like other libraries, information centers and organizations, academic libraries which university library is a part operate within the context of two environments - internal and external. Both environments are interconnected and their impact is a two-way process. While internal context of library consists of organizational structure and functions and the way they are configured in pursuit of specified organizational objectives; each library operates in complex and changing external environments, which frequently produces new challenges which must be controlled to ensure the library's future survival and success (Babalhavaeji & Farhadpoor, 2012). Therefore, any attempt to ascertain the use of information resources must consider not only the internal factors of the library but also the external environmental factors which Nwalo (2001)

tagged the ‘operational climate’ that could either facilitate or hinder the use of information resources.

## Methodology

This research work adopted two designs. Survey design and correlational design involving a linear correlational design that employed the use of Pearson product moment correlation model. The population of the study is 32,999 registered users. A sample of 379 respondents was drawn from the population of the study using Krecjie and Morgan’s (1970) table for determining sample size. Rating Scale was used as the instrument to elicit data for this study. To analyse the data collected for the study, mean scores and standard deviation were computed to answer research question one and to provide basic descriptive statistics that accompany Pearson Product Moment Correlation Coefficients (PPMCC) which are used to answer research questions two and three. The coefficients of correlation obtained are tested for significance using the t-test.

## Data Analyses and Presentation

Research Question One: What are the information resources utilized in the university libraries studied?

**Table 1**

**Resources Utilized in the Universities**

<i>S/N</i>	<i>Item</i>	$\bar{X}$	<i>Std</i>
1	Textbooks	2.58	1.05
2	Reference Books	2.85	0.99
3	Serials	2.87	0.96
4	Audio-Visuals	2.53	1.14
5	e-Resources	2.78	1.05
<b>Overall</b>		<b>2.72</b>	<b>1.04</b>

Table 1 presented the information resources in the university libraries that were utilized. Data in the table revealed that sub items 23, 24, 25 of item 4 with means of 2.41, 2.48, 2.35 respectively and sub item 35 of item 5 with a mean of 2.49 are not used in the libraries studied. However, the mean score of 2.85 and 2.87 for reference and serials show that they are more



utilized than the other types of information resources. Despite the variation, the possession of mean of 2.50 and above by all the information resources listed shows that all types of information resources in the university libraries are used.

**Research Question Two:** What is the relationship between the environmental factors and use of information resources in the universities studied?

**Hypothesis One:** The coefficient of correlation between the environmental factors and use of library information resources in the universities studied is not significant.

**Table 2**

**The Magnitude, Direction and Significance of Status of the Coefficient of Relationship between Environmental Factors and Use of Information Resources**

$\bar{X}_{EnF}$	$\bar{X}_{Ut}$	$n$	$r_{xy}$	$df$	$t_{Cal}$	$t_{tab}$	<b>Decision</b>
25.83	99.51	362	0.078	360	1.485	1.960	Not Significant (Not Rejected)

The relationship between environmental factors and use of information resources in the university libraries studied is presented in Table 2. While the mean score of the environmental factors is 25.83, that of use is calculated at 99.51. Also, the relationship between the environmental factors and use of information resources is 0.078 showing a positive but very low relationship. Testing their coefficient of relationship, the  $t_{cal}$  of 1.485, which is less than the  $t_{tab}$  of 1.960, revealed that the coefficient is not significant at 0.05 confidence level and 360 degree of freedom. Hence, the null hypothesis is not rejected. This shows that relationship between environmental factors and use of information resources is not significant.

**Research Question Three:** What is the extent of the relationship between environmental factors and use of information resources in the federal and state universities studied?

**Hypothesis Two:** The coefficient of correlation between the environmental factors and use of library information resources obtained from the Federal and State Universities do not differ significantly.

**Table 3**

**The Magnitude, Direction and Significance of Status of the Coefficient of Relationship between Environmental Factors and Utilization of Information Resources in the Federal and State Universities**

$\bar{X}_{EnvF}$	$\bar{X}_{EnvS}$	$\bar{X}_{Ut}$	$n_F$	$n_S$	$r_F$	$r_S$	$df_F$	$df_S$	$t_{Cal}$	$t_{tab}$	<b>Decision</b>
25.72	25.97	99.93	200	162	-0.123	0.366	198	160	4.798	1.960	Significant (Ho Rejected)

Table 3 shows the relationship between environmental factors and use of information resources in the federal and state universities. The mean score of environmental factors in the federal and state universities are 25.72 and 25.97 respectively. The -0.123 index of relationship for federal universities shows a very low negative relationship and 0.366 for the state universities indicates low positive relationship between the environmental factors and use. However, testing their coefficient of relationship, the  $t_{cal}$  of 4.798, which is greater than the  $t_{tab}$  of 1.960, shows that the difference between the coefficients (-0.123 and 0.366) is significant at 0.05 confidence level. Hence, the null hypothesis is rejected. This revealed that the coefficient of correlation between the environmental factors and use of library information resources in the Federal and State Universities differ significantly.

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### **Discussion of Results**

#### **The information resources utilized in the university libraries studied**

The analysis of data presented in Table 1 shows that majority of the information resources in the university libraries are being utilized. This finding supports Nwokedi and Ogundare (2005) assertion that one major objective for which libraries are established is to ensure that maximum use is made of its resources and services. However it is not in agreement with the results of studies on use of library information resources by Ajiboye and Tella (2007) in Botswana and Agboola (2010) in Nigerian universities where underuse of most of the library information resources by the undergraduate students were recorded.

#### **Relationship between the Environmental Factors and Use of Information resources**

The relationship between environmental factors and use of information resources is reported to be very low and insignificant. This indicates that the existence of the environmental

factors rarely detract students' attention to their use of library information resources and where it does, the influence is not felt much. The finding however, negates the result by Amusa & Iyoro (2013) where observation of less use of academic libraries due to the availability of alternative information systems like, Information and Communication Technology gadgets, the internet, reading-rooms in residence halls and apartments was made. It is also not in agreement with Simmond and Andaleeb (2001) observation that, students seem to know more about other libraries than their own institutions' library, and that social networks in smart phones and cyber cafes around the university environment take more of today's library user's time than is expected thus posing a challenge to their use of library resources. Still negating this result are findings of Clabo (2002) and Hayelom (2014) where library use is reported to be conditioned by the emphasis teachers place on academic assignments and teaching-learning systems or methods. To them, lack of interest and support by the teacher are hindrances to students' use of library resources. The more active teaching methods are applied by the teachers, the more written assignments are given to students and invariably the higher is their use of library resources.

This contradictory finding could be attributed to the student's increased reading interest and observance of the need to use the library and its information resources for their academic growth despite the existence of the detracting environmental factors.

### **Extent of the Relationship between Environmental Factors and Use of Information Resources in the Federal and State Universities Studied**

The extent of relationship between the environmental factors and use of library information resources in the federal universities is negatively very low and positively low in the state universities and also differ significantly. This result shows that although the environmental factors exist in the universities, the extent to which they influence use is felt more in the state universities than in the federal universities. This could be as a result of the nature of their library in terms of conducive atmosphere, cheaper internet services, staff-user relationship, provision of conveniences etc. which can make the users ignore external deterrents like cyber café, classrooms, and lecturers' manuals among others. It could also be attributed to the ability of the parent body to control the complex and changing external factors which according to Babalhavaeji and Farhadpoor (2012) frequently produces new challenges which must be controlled to ensure the library's future survival and success. This finding however negates Palmer and Hartely (2002) and Hoffmann's (2015) opinion that environment comprises all

forces, events and space surrounding a human being, which exerts impact on him and influences his living conditions.

### **Conclusion**

Although it may not be possible to predict or change the elements and forces of these external factors to appreciable extent, they are sources of information and need to be observed. Institutions need to carefully watch the factors as they may become significant over a period of time and any significant change in it can instantly affect them while any delay in response could be lethal for them. It can therefore be concluded from this study that knowledge of the environmental factors will help to plan on strategies to encourage the use of information resources. The result of the study shows that all types of information resources listed are used in the university libraries studied; the relationship between environmental factors and use of the information resources is very low and insignificant and the extent of relationship between the environmental factors and use of library information resources in the federal universities is very low, negative and significant but low, positive and significant in the state universities. The implications are that, the student's academic performance will be high since they are appreciative and interested in the information resources provided in the library; the student's have come to understand that the library is very important for their academic growth despite the existence of the environmental factors. Also, the academic performance of students in federal institutions is bound to be slightly higher than those of state institutions since the extent to which environmental factors influence use of information resources is felt more in the state owned universities than the federal universities.

### **Recommendations**

Although all types of information resources listed are utilized, some resources are still neglected in the various groups therefore the library management should strive to encourage the use of all the library information resources through adequate user education programme in and outside the library environment.

Despite the insignificant influence of the environmental factors on utilization of information resources, the fact that they even have trace of detraction calls for university management to under study the environment and find out those detracting factors to either remove them, work on their control to guard against their negative impact. This is based on the

premise that a little drop of water makes a mighty ocean, thus an insignificant effect will one day become significant if it is not checked.

The state universities should endeavour to monitor the existing environmental factors while the spread of new environmental factors are strictly checked.

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