

Influence of Self-Efficacy on E-Resource Utilisation by Undergraduates in Three Nigerian Universities

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Abstract The advent of information and communication technologies (ICTs) has greatly revolutionised the way undergraduates' access and utilise information resources in academic libraries. Consequently, academic libraries stock their collection with both print and electronic resources. A lot of funds go into the provision of e-library resources in Nigerian universities, e-resources are underutilised by undergraduates. This study set out to investigate the influence of self-efficacy on e-resource utilisation by undergraduates in three Nigerian universities. Questionnaire was the data collection instrument for the study. Three federal universities were selected for the study. Of the 300 copies of questionnaire administered, 261 were duly filled and analysed giving a response rate of 87%. The study revealed that undergraduates in federal universities possessed a high level of self-efficacy. In rank order, the self-efficacy levels of respondents in the selected institutions were, University of Port Harcourt 89(34.1%), University of Ibadan 80(30.7%) and Obafemi Awolowo University 72(27.6%). The study also revealed that undergraduates' level of e-library resources utilisation was low. The study established a statistically significant relationship between self-efficacy and e-library utilization, a statistically significant difference in e-library utilisation of the undergraduates in the three selected universities. No significant gender difference in e-library resources utilisation of the undergraduates was found. Libraries should embark on aggressive awareness campaign of e-library resources to enhance utilisation.

Keywords Self-efficacy, e-resources, Undergraduates, Nigeria

1. Introduction

The advent of information and communication technologies (ICTs) has greatly revolutionised the way undergraduates' access and utilise information. Due to the paradigm shift from print to electronic resources, it is obvious that academic libraries stock their collection with both print and electronic resources. To satisfy 21st century library patrons the e-library cannot be undermined; consequently academic libraries place more priority on the e-library and its collection to support the goals of their institutions (Trivendi, 2010). Nigerian undergraduates are ardent users of electronic resources and a greater percentage of undergraduates are "digital natives." Consequently undergraduates are more comfortable using the e-library resources. According to Trivendi (2010), rapid advances in information technologies have revolutionised the role of libraries.

E-library collections include but are not limited to e-books,

e-journals, CD-ROM, digitized resources such as theses/dissertations; newspapers and databases. Shidi (2013) asserted that 21st century libraries have been transformed from the traditional status of being the store house of information materials (mostly print) into information centres where information and communication Technologies (ICTs) are used to acquire, process, store, retrieve and disseminate information. In order to utilise the growing range of electronic resources, students must acquire and practice the skills necessary to exploit them (Nina, 2008). To maximize the full potential of electronic resources undergraduates should possess skills such as knowledge of the structure of the database and the instructions and must have high levels of self-efficacy. Nina (2008) asserted that to increase student self-efficacy in searching for information, library orientation courses should be organised for undergraduates.

The objective of the academic libraries is to support the academic programmes of their parent institutions by providing relevant information so as to respond to the ever-increasing information demands of the undergraduates (Nkamnebe, Udem and Nkamnebe, 2014). Bandura (1997) as cited in Waldman (2003) asserted that self-efficacy is the belief an individual has about his capability to organise and execute the courses of action required to manage prospective situations. According to Waldman (2003), undergraduates

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with high self-efficacy would be more likely to explore new technologies, software or databases. Individuals develop self-efficacy through various experiences. On the one hand, positive experiences would enhance a high level of self-efficacy while negative experiences would result to low level of self-efficacy. Self-efficacy therefore is the perception that an individual has about his or her ability to attain desired goals.

According to Tang, Tseng and Morris (2013), research has shown that the degree of self-efficacy a student has influences the use of the library's electronic resources. Nevertheless, self-efficacy is not a static concept; it depends on an individual's readiness to work and the ability to improve self-efficacy. Therefore, the use of e-library by undergraduates is a function of self-efficacy. In a study of Chinese undergraduates Tan, Ma and Li (2015) found that greater level of general self-efficacy was associated with a higher level of self-esteem and lower levels of procrastination. In the same vein, Mamaril, Usher, Li, Economy and Kennedy (2016) found that undergraduates self-efficacy was significantly and positively correlated with mastery goals. Afolabi and Balogun (2017) suggested that undergraduates' self-efficacy for practical purposes may be inflated therefore university administrators should provide more experiential learning to enable students have a more realistic assessment of their own skills and competencies. This was corroborated by Balogun and Adebayo (2016) who asserted that undergraduates with a strong sense of self-efficacy tend to persist, deploy greater efforts and energy, and strive to achieve positive results when faced with difficult or threatening situations.

According to Gist and Mitchel 1992 as cited in Tekinarslan (2011) self-efficacy is highly associated with work related performance, learning achievement and adaptability to new technology.

Conversely, a lot of funds go into the provision of e-libraries resources in Nigerian universities and subscription to online databases and other e-resources thereby making it capital intensive. Preliminary investigations have however revealed that undergraduates did not maximally utilise e-library resources to justify their cost. It is against this backdrop that this study set out to investigate the influence of undergraduates' self-efficacy as a correlate of e-library resources utilisation by undergraduates in three universities in Nigeria.

The e-library has brought about a transformation in information accessibility and utilisation of library resources because it saves time being that one can access publications at one's convenience (Daramola, 2016).

Consequently, undergraduates that will use e-resources must possess the requisite skills and competencies to access and use the resources effectively and efficiently. It is obvious that undergraduates need to possess adequate self-efficacy levels in order to maximise the benefits of the e-library and its resources. In the study of Nigerian undergraduates Ojo and Akande (2005) found out that the level of usage of the electronic information resources by Nigerian undergraduates

was low. Ajiblili (2013) found that the undergraduate students of the university were aware of the existence of e-library and its purposes, but were not using it optimally as a result of slow and erratic network. However, the major problem identified was lack of information retrieval skills for exploiting electronic resources, thus making the level of usage of resources by the respondents low. The concept of e-library is not merely equivalent to a digitized collection with information management tools, it is rather an environment to bring together collections, services and people in support of the full life cycle of creation, dissemination, use and preservation of data, information and knowledge (Tabassum, Roknuzzaman and Islam, 2015).

Undergraduates seems to rely more on the utilisation of recent and timely information and electronic resources for research purposes. Evidently, e-library resources are popular among members of the university community as indicated by the level of use. The findings of the study further revealed the need for effective user education for optimal utilization of electronic information resources and online databases which are essential for learning and research.

This finding is similar to what was reported by Daramola (2016) in a Nigerian study of undergraduate e-library utilisation in Federal University of Technology, Akure, where e-library resources utilisation was found to be very low. This finding also lends credence to the assertion of Mawere, and Sai (2018) that many Zimbabwean academic institutions have made the facility of e-libraries top agenda in their strategic plans, the adoption rate among students is still very limited. Thus, the provision of adequate resources in the e-library of any academic institution does not ensure adequate utilisation. Hence, under utilisation of electronic information resources is not necessarily because of unavailability of the resources. In another study of Nigerian undergraduate utilisation of e-resources at the University college hospital, Ibadan, Ajuwon (2003) reported that the study respondents could not use the computer maximally, and that the use of the databases was poor due to lack of insufficient training. Fabunmi and Awoyemi (2017) who reported a low level of computer efficacy among Nigerian undergraduates which can hamper the level of e-resources utilization.

2. Objectives

The following objectives guided the study:

1. to find the level of undergraduate self-efficacy in three Nigerian universities
2. to ascertain the level of e- library utilisation of undergraduates in three Nigerian universities.

3. Hypotheses

Two null hypotheses were postulated which were tested at 0.05 level of significance.

- H01 There is no significant relationship between self-efficacy and e-library utilisation of the undergraduates across the three selected federal universities in Nigeria.
- H02 There is no significant difference in e-library utilisation of the undergraduates in the three Nigerian universities.
- H03 There is no significant difference in e-library resources utilisation of the undergraduates across gender.

4. Methodology

The study employed the survey design of the correlational type. Three Nigerian universities were purposefully selected from the federal universities in Nigeria. The target population were the undergraduates in the selected universities (Obafemi Awolowo University (OAU), University of Ibadan (UI) and University of Port-Harcourt (UNIPORT)). Questionnaire instrument was found most appropriate for use to elicit information on undergraduates' self-efficacy and e-library utilisation. The instrument was adapted from Waldman (2003). A structured questionnaire which consisted of three sections was used to elicit responses from the study respondents. The first part consisted of items on the demographic profile of the respondents and the second part consisted of items on undergraduates' self-efficacy while the third section was on e-library utilisation. The reliability coefficient of self-efficacy was found to be 0.72 while the library use was 0.71. Of the 300 questionnaire administered 261 were duly filled and analysed giving a response rate of 87% which was quite adequate for the study. All data collected was analysed using SPSS version 21.

5. Data Analysis and Discussion of Findings

Table 1. Levels of E-Library Users' Self-Efficacy in the three Institutions

Institutions	Levels of Self-Efficacy		Total
	Low	High	
OAU	7(8.9%)	72(91.19%)	79(100%)
UI	8(9.1%)	80(90.9%)	88(100%)
UNI PORT	5(5.3%)	89(94.7%)	94(100%)
Total	20(7.7%)	241(92.3%)	261(100.0%)

Table 1 shows the self-efficacy levels of undergraduates in the three selected institutions. It can be seen that out of 79 students from the Obafemi Awolowo University, Ile-Ife (OAU), 8.9% possessed a low level of self-efficacy while 91.1% possessed a high level of self-efficacy. Out of 88 undergraduate students from the University of Ibadan a very minor proportion 8(9.1%) had low levels of self-efficacy while 30.7% of had high levels of self-efficacy. About one

third (36.0%) of the students were from University of Port Harcourt and out of this only 1.9% of them had a low self-efficacy level while 34.1% of them had a high level of self-efficacy.

Table 2. Level of Undergraduates Utilisation of e-library resources

Institutions	Levels of E-library Resources Utilization			Total
	Low	Moderate	High	
OAU	45(57.0%)	29(36.7%)	5(6.3%)	79(100%)
UI	39(44.3%)	38(43.2%)	11(12.5%)	88(100%)
UNI PORT	68(72.3%)	24(25.5%)	2(2.2%)	94(100%)
Total	152(58.2%)	91(34.9%)	18(6.9%)	261(100.0%)

Table 2 shows the level of utilisation of e-library resources by undergraduates in the three selected universities. Over half 152 (58.2%) of the study respondents utilised e-library resources at a very low level. Of this number 45 (57%) of them were from OAU, 39 (44.3%) from UI. The largest number of e-library users at a low level was from the University of Port Harcourt 68 (72.39%). Considering respondents whose level of utilisation of e-library resources were considered to be high, UI 11 (12.5%) was ranked highest and UNIPORT 2 (2.2%) was ranked lowest 4.2%.

6. Hypotheses

Hypothesis 1: There is no significant relationship between self-efficacy and E- library utilisation by the Undergraduates.

Table 3. Correlation between self-efficacy and e-library utilisation of the Undergraduates

Variables	N	\bar{X}	SD	R	P
Self-Efficacy/E-library Utilization	261	62.25	9.67	.140	.023 P < 0.05
	261	10.75	4.59		

As shown in Table 3, the correlation coefficient (r) between self-efficacy and E- library utilisation of the Undergraduates is .140. This value is found to be significant at 0.05 level of significance. This suggests that there is a direct and significant relationship between self-efficacy and E- library utilisation of the Undergraduates (N = 261, r = .140, p < 0.05). This result concludes that there is a significant relationship between self-efficacy and E- library utilisation of the Undergraduates. The null hypothesis is therefore rejected.

Hypothesis 2: There is no significant difference in E-library utilisation of the undergraduates in the three institutions of learning.

Table 4a shows a one-way between groups analysis of variance conducted to explore the difference in e-library utilisation of the undergraduates across the three institutions of learning. It can be observed that that there was a statistically significant difference in e-library utilisation of the undergraduates across the three institutions of learning as

determined by one-way ANOVA ($F_{(2,258)} = 10.371, p = .000$). This result concludes that there is a significant difference in e-library utilisation of the undergraduates across the three institutions of learning. The descriptive information and post-hoc test of the undergraduates were shown in Table 4b and c respectively.

Post-hoc comparisons using the Turkey HSD test indicated that the mean score for undergraduates from OAU ($M=10.34, SD=4.27$) was significantly different from their

counterparts from UI ($M=12.44, SD=4.94$). Mean score for undergraduate from UI ($M=12.44, SD=4.94$) was significantly different from those from UNIPORT ($M=9.52, SD=4.53$). However, no significant difference was found between undergraduates from OAU and UNIPORT.

Hypothesis 3: There is no significant difference in E-library resources utilization of the undergraduates across gender.

Table 4a. A One-way analysis of variance test of significant difference in undergraduates E-library utilisation across the three institutions

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	407.361	2	203.681	10.371	.000
Within Groups	5066.946	258	19.639		
Total	5474.307	260			

Table 4b. Descriptive information of undergraduates on E-library Utilisation

Institutions	N	Mean	Std. Deviation	Std. Error
OAU	79	10.3418	4.27841	.48136
UI	88	12.4432	4.94535	.52718
UNI PORT	94	9.5213	4.03141	.41581
Total	261	10.7548	4.58858	.28403

Table 4c. Post-hoc test of multiple comparisons of undergraduates' E-library Utilisation in different institutions

Multiple Comparisons						
Tukey HSD						
(I) Group	(J) Group				95% Confidence Interval	
		Mean Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
OAU	UI	-2.10141*	.68686	.007	-3.7206	-.4823
	UNI PORT	.82050	.67641	.447	-.7740	2.4150
UI	OAU	2.10141*	.68686	.007	.4823	3.7206
	UNI PORT	2.92191*	.65735	.000	1.3723	4.4715
UNI PORT	OAU	-.82050	.67641	.447	-2.4150	.7740
	UI	-2.92191*	.65735	.000	-4.4715	-1.3723

*. The mean difference is significant at the 0.05 level.

Table 5. T-test of Significant gender Difference in E-library utilisation of the Undergraduates across gender

Sex	N	Mean	Std. Deviation	Std. Error Mean	t	df	P
Male	153	10.8889	4.59914	.37182	.462	242	.644
Female	91	10.6044	4.73727	.49660			

An independent samples t-test was conducted to determine the significant difference in e-library utilisation of the Undergraduates across gender. The result indicates that there is no significant gender difference in the e-library resources utilisation of the male ($M=10.89, SD=4.60$) and female undergraduates ($M = 10.60, SD = 4.74; t(242) = .462, p = .644$). Since the p-value is greater than .05, the null hypothesis is therefore upheld. It can therefore be inferred that there is no significant gender difference in e-library resources utilisation of the undergraduates.

7. Discussions of Findings

The findings of the study revealed that the level of self-efficacy of undergraduates in the three institutions which were studied (OAU, UI and UNIPORT) was relatively high, though at various levels. Undergraduates from UNIPORT had the highest level of self-efficacy while OAU undergraduates' self-efficacy level was the least. The result is unexpected because University of Port Harcourt has a well-established e-library and holds regular trainings on the

use of the e-library. In addition, e-resources in the library usually receive wider publicity than other types of library resources. For instance, Donald Ekong library of the University of Port Harcourt is more visible on the Internet than Kenneth Dike library, University of Ibadan and Hezekiah Oluwasanmi Library, Obafemi Awolowo University. The findings of this study corroborate that of Fabunmi and Awoyemi (2017) who found that majority of the undergraduates had the highest level of computer self-efficacy. It is evident that undergraduates self-efficacy improves as they are being exposed to various academic rigours and influenced by the university environment. Consequently, 21st century undergraduates acquire other skills alongside their academic career in the universities.

The study also revealed that undergraduates' level of e-library resources utilisation was low despite the huge amount of money involved in subscribing to databases and the maintenance of the e-library hardware. Underutilisation of the e-resources could be as a result of lack of awareness of the e-resources available in the e-library. It poses a challenge to all academic libraries as regards maximum utilisation of e-resources. This finding buttresses that of Fabunmi (2017) who in a study of Nigerian undergraduate computer self-efficacy found that low levels of computer self efficacy can hamper the level of e-resources utilisation which is a clear indication of the relationship between self-efficacy and e-resource utilisation. The study findings also align with that of Ajuwon (2003), Ojo and Akande (2005), Ajibili (2013) whose studies also revealed that the level of usage of e-library resources by undergraduates was low considering that the respondents could not utilise the resources optimally to justify the high cost of the e-resources. This could probably account for the low level of usage of e-library resources by the respondents of this study. The findings of the study revealed the existence of a statistically significant relationship between self-efficacy and e-library utilisation of undergraduates. Undergraduates with high self-efficacy levels are presupposed to use e-library resources more effectively than undergraduates with low self-efficacy. The finding corroborates results that were obtained by Mamaril, Usher, Li, Economy and Kennedy (2016) who found that undergraduate's self-efficacy was significantly and positively correlated with mastery goals. Gist and Mitchel 1992 as cited in Tekinarslan (2011) also asserted that self-efficacy is highly associated with work related performance, learning and achievement and adaptability to new technology. There exists a statistically significant difference in e-library utilisation of the undergraduates in the three selected universities. This finding is not unexpected because there are variations in terms of e-resources acquisition and subscription, level of awareness and other infrastructure, among the three universities which were involved in the study. There was no significant difference in e-library resources utilisation of the undergraduates across gender which implies that gender dynamics does not come into play in undergraduate utilisation of e-library and the

resources found therein among the respondents of the present study.

8. Conclusions

The self-efficacy of undergraduates was relatively high in all the three selected universities which is an indication that the universities had imparted great virtue in the respondents which could enhance their academic achievements. In addition, it allows undergraduates to take advantage of e-library resources if there is adequate awareness. Surprisingly there are gender differences in, e-library utilisation of the study respondents. Thus, there should be aggressive awareness campaign to sensitize the entire university community in order to ensure maximum utilisation of the e-library and its benefits to support academic work. There were no gender variations in e-resource utilization of the study respondents which is an indication that both male and female respondents generally exhibited equal levels of self-efficacy.

9. Recommendations

The following recommendations are proffered based on the findings of the study:

- Academic libraries should embark on aggressive awareness campaign of the e-library resources to allow wider utilisation of the resources. Utilisation of e-library resources like any other library resource depends largely on awareness, user's education and perception of the propensity to meet users' needs. The utilisation of e-library resources has a lot to do with undergraduates' self-efficacy.
- Faculty should partner with the academic libraries in the awareness campaign by giving undergraduates assignments that will compel them to use e-library resources.
- University administrators should incorporate trainings into undergraduates' programmes that would enhance undergraduates' abilities to use e-library resources to maximally.
- Librarians ensure that concerted efforts are made to ensure that e-resources utilisation is not limited by time or space barriers.
- All efforts from educational stakeholders should be harnessed to ensure the maximum utilization of the e-resources.

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