

THE ADOPTION AND UTILISATION OF ELECTRONIC DATABASES BY POSTGRADUATE STUDENTS IN GHANAIAN UNIVERSITIES: A COMPARATIVE STUDY OF KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY AND UNIVERSITY OF GHANA

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Abstract This article compares the level of awareness, usage and characteristics of electronic databases amongst postgraduate students of Kwame Nkrumah University of Science and Technology (KNUST) and University of Ghana. It assesses the level at which students from both universities are conversant with such databases and issues that surround their use through a questionnaire administered to 131 students at KNUST and 297 students at University of Ghana (UG). The results indicate a high level of awareness of electronic databases in both institutions, but KNUST students patronise slightly more. Factors like access, ease of use and full-text options are highlighted as key contributors to database utilisation. Improved advertisement and ease of use are called for to ensure effective utilisation of electronic resources by postgraduate students in Ghana. This study highlights the critical role of database promotions and user training in improving the effective utilisation of electronic resources. Recommendations include enhancing interface simplicity and resolving technical barriers to optimise postgraduate engagement in Ghanaian universities.

Keywords: Database, Awareness, Utilisation, Kwame Nkrumah University of Science and Technology (KNUST), University of Ghana (UG)

INTRODUCTION

Over recent years, especially in education, Information and Communication Technologies have brought in huge transformation in various tasks. Modernisation has made searching and retrieving information easier, hence improving the quality of education (Abdelrahman, 2017; Achim & Al Kassim, 2015). The academic libraries are also making an equal shift from print to electronic resources, given the increasing trend in the preference for sources of electronic information such as databases (Adesoye & Amusa, 2013; Ahenkorah-Marfo, 2017). This essay intends to analyse the awareness and utilisation of electronic databases among postgraduate students, with a comparative analysis of Kwame Nkrumah University of Science and Technology and University of Ghana (UG).

PROBLEM STATEMENT

Despite significant investments in electronic databases, postgraduate students at (KNUST) and (UG) under-utilise these resources due to factors such as lack of awareness, insufficient ICT skills and complex search interfaces.

OBJECTIVES OF STUDY

The main purpose of the study is:

- To determine the level of awareness of electronic databases among postgraduate students of KNUST and UG.
- To find out the level of use of electronic databases by postgraduate students of KNUST and UG.

- To examine the characteristics of the electronic databases that affects their use by postgraduate students of KNUST and UG.

SIGNIFICANCE OF STUDY

This study will investigate electronic database usage by postgraduate students in the two institutions. Since the needs of students are constantly changing, there is great need for the library to regularly assess the usage of databases. Consequent findings will be used to inform librarians regarding optimisation of the student usage of the resources.

LITERATURE REVIEW

Introduction

This chapter reviews the literature on the use of electronic databases by postgraduate students globally. This review places the current study within the wider academic discourses, thus identifying research gaps and informing the basis of improvement on the reviewed previous studies (Ahmed & Al-Reyae, 2017). The review explores themes of awareness, usage and characteristics.

Concept of Electronic Databases

Chowdhury defined the term “database” as a systematically stored collection of information that could be searched and retrieved efficiently by an electronic device (Ahmed, Alreyaee & Rahman, 2014). It is normally arranged to make accessibility and retrieval easy; it is maintained by the Database Management Systems.

Electronic Databases and Their Benefits

Institutional Repositories is an internet database that collects, store and shares scholarly material of a certain institution such as electronic prints, theses, journals, e-books, etc. It improves the institutional visibility and prestige (Akpojotor, 2016; Atuase, 2016); and extend the range of African research worldwide (Boakye, 2015). Others include that they serve as a place to showcase and disseminate academic activities of an institution, and promote the philosophy of wider communication (Azami, Khajouei & Rakhshani, 2016; Boakye, 2015).

Journal databases are collections of journal articles. They include details of publication. They are a great help for students and faculty alike. Quality full-text journals give a great contribution to student and faculty research output

(Dlamini & Snyman, 2017; Fraenkel & Wallen, 2009). Katabalwa noted that students use journal databases to access quality information for research, assignments and increase their knowledge in their field of study (Gakibayo, Ikoja-Odongo & Okello-Obura, 2013).

Awareness of Electronic Databases

Awareness may encourage library use (Javed & Bhatti, 2013). Literature shows a mixed state of awareness of postgraduate students: 70% of postgraduate students showed high levels of awareness of databases at the GBPUAT library; (Katabalwa, 2016). Natarajan reported similar (Khan & Bhatti, 2016; Krishnamurthy & Kemparaju, 2011).

High awareness of electronic databases can lead to high usage and vice-versa. On the other hand, lack of awareness may lead to low usage (Kwadzo, 2015; Makori, 2015). Contrary to previous studies, some of the studies identified a gap between high awareness and low usage of electronic databases (Makori, Njiraine & Talam, 2015; Mansour & Ibrahim, 2017; Marshall & Rossman, 2006). Three possible scenarios arise in the form of: high awareness-high use, high awareness-low use and low awareness-low use. Awareness for electronic databases can be created through several means (Naqvi, 2012; Obasuyi & Okwilagwe, 2016), such as orientations, lecturers and many others (Natarajan, 2017).

Purpose of using Electronic Databases

On the whole, graduate and undergraduate students use electronic databases for academic purposes. Most studies indicated that the most frequently identified uses are for thesis/dissertation writing, completing assignments, writing literature reviews, preparing for exams (Kwadzo, 2015; Obasuyi & Usifoh, 2013).

System Characteristics' Impact on the Use of Electronic Databases

The nature of an electronic database affects student use. There are two main categories: information-related, which involves relevance and accuracy, and system-related, which pertains to reliability, flexibility and ease of use (Oduro, 2016). In other studies, characteristics such as full-text options, ease of access, relevance of information and user-friendly interface were emphasised as enabling factors for the adoption of electronic databases by students toward effective information retrieval and research (Oduwole & Sowole, 2006; Park, Roman & Chung, 2009; Togia & Tsigilis, 2009).

METHODOLOGY

This essay analyses the awareness and utilisation of electronic databases using a comparative analysis of KNUST and UG. The Colleges of Health Sciences (COH) and College of Humanities/Social Sciences (COHSS) of both universities were the selected population for the study. The total population for the study was 4283. The researcher employed questionnaires as the instrument for collecting data for the study. Table 1 shows the total population of the selected colleges in KNUST in 2017.

Table 1: Population of UG and KNUST Regular Postgraduate Students from the Colleges of Humanities/Social Sciences and Health Sciences

	Humanities/ Social Sciences	Health Sciences	Total
UG	2441	534	2975
KNUST	990	318	1308
Total	3431	852	4283

Source: School of Graduate Studies (UG and KNUST).

The sample size for the study was a 10% sample of the total postgraduate student population taken from each of the selected colleges and comprised about 428 students. The sample size for each college of KNUST and UG was determined by proportionate sampling to achieve fair representation. This enhances the probability that the sample will be representative of the target population.

OBSERVATIONS AND DISCUSSIONS

The breakdown in terms of gender showed, the males for KNUST were 72%, while females were 35%. UG results showed that the males constituted 64.3%, while females were 35.7%.

Table 2: Demographics Based on Colleges

College	KNUST		UG	
	No.	Percentage	No.	Percentage
Humanities (COHSS)	93	74.4	172	77.8
Health Sciences (COH)	32	25.6	49	22.8
Total	125	100	221	100

Source: Field Data, 2018.

Awareness of Electronic Databases

Table 3: Response on the Awareness of Available Databases

Awareness	KNUST		UG		Total	
	No.	Percentage	No.	Percentage	No	Percentage
Yes	121	96.8	211	95.5	332	96
No	4	3.2	10	4.5	14	4
Total	125	100	221	100	346	100

Source: Field Data, 2018.

From Table 3 there are 346 participants, 96% (332) were aware of available electronic databases. This included 96.8% (121) from KNUST and 96% (211) from UG.

Respondents who were aware, were then asked to specify whether they knew about institutional repositories (UGSpace/KNUSTSpace) or online journal databases. The responses are as follows:

Table 4: Responses on the Awareness of Specific Available Electronic Databases

Library Databases	KNUST N=121		UG N=211	
	No	Percentage	No	Percentage
Online Journal Database	120	60.9	209	67.4
Institutional Repository	77	39.1	101	32.6

Source: Field Data, 2018.

N is the number of respondents.

The response showed that online journal databases were the most well-known among the postgraduate students at KNUST and UG.

Table 5: Responses on the Awareness of Online Journal Databases Cross-Tabulated by the University

Online Journal Databases	KNUST		UG	
	No.	Percentage	No.	Percentage
Academic Search Complete	33	7.0	67	6.7
African Journal Online	53	11.3	112	11.1
BIOONE	8	1.7	1	0.1
Business Source Complete	11	2.3	16	1.6
Chicago Journal	11	2.3	32	3.2
CINAHL Complete	4	0.8	13	1.3
EBSCOhost	19	4.0	49	4.9
EmeraldInsight	44	9.3	62	6.2
JSTOR	66	14.0	143	14.2
MEDLINE	21	4.5	45	4.5
Online Annual Reviews	9	1.9	32	3.2
Project Muse	14	3.0	24	2.4
Royal Society Journals Online	7	1.5	13	1.3
Royal Society of Chemistry	7	1.5	6	0.6
Sage Journals Online	41	8.7	110	10.9
ScienceDirect	54	11.5	128	12.7
Taylor & Francis	20	4.2	47	4.7
Wiley Online Library	43	9.1	91	9.1
Others	6	1.3	14	1.4

Source: Field Data, 2018.

The table above shows the level of awareness amongst the postgraduate students of KNUST and UG about named online journal databases. Among these, the JSTOR database was most recognisable by respondents, followed by ScienceDirect and African Journal Online. The databases which got the least recognition were Online Annual Reviews,

Business Source Complete, BIOONE, CINAHL Complete, Royal Society of Chemistry and Royal Society Journals Online.

Table 5 gives the awareness based on universities, Table 6 and 7 breaks this down to colleges.

Table 6: Responses on Awareness of Online Journal Databases by Colleges in KNUST

Online Journal Databases	KNUST			
	Humanities and Social Science N= 88		Health Sciences N= 32	
	No.	Percentage	No.	Percentage
Academic Search Complete	26	7.8	7	5.1
African Journal	36	10.8	17	12.4
BIOONE	6	1.8	2	1.5
Business Source Complete	11	3.3	0	0.0
Chicago Journal	10	3.0	1	0.8
CINAHL Complete	1	0.3	3	2.2
EBSCOhost	13	3.9	6	4.4
EmeraldInsight	37	11.1	7	5.1
JSTOR	55	16.5	11	8.0
MEDLINE	5	1.5	16	11.7

KNUST				
Online Journal Databases	Humanities and Social Science N= 88		Health Sciences N= 32	
	No.	Percentage	No.	Percentage
Online Annual Reviews	7	2.1	2	1.5
Project Muse	14	4.2	0	0.0
Royal Society Journals Online	2	0.6	5	3.6
Royal Society of Chemistry	1	0.3	6	4.4
Sage Journals Online	35	10.5	6	4.4
ScienceDirect	30	9.0	24	17.5
Taylor & Francis	17	5.1	3	2.2
Wiley Online Library	28	8.4	15	10.9
Others	0	0	6	4.4

Source: Field Data, 2018.

JSTOR was more familiar in the COHSS, whereas ScienceDirect was more known at the COH. Awareness of the African Journal Online was generally the same in the

two colleges. Generally, awareness of other databases like BIOONE and Business Source Complete was relatively low in the two colleges.

Table 7: Responses on Awareness of Online Journal Databases by Colleges of UG

UG				
Online Journal Databases	Humanities and Social Science N= 88		Health Sciences N= 32	
	No.	Percentage	No.	Percentage
Academic Search Complete	57	7.0	10	5.3
African Journal	92	11.3	20	10.6
BIOONE	1	0.1	0	0.0
Business Source Complete	15	1.8	1	0.5
Chicago Journal	29	3.6	3	1.6
CINAHL Complete	2	0.2	11	5.8
EBSCOhost	43	5.3	6	3.2
EmeraldInsight	59	7.2	3	1.6
JSTOR	127	15.6	16	8.5
MEDLINE	22	2.7	23	12.2
Online Annual Reviews	27	3.3	5	2.6
Project Muse	22	2.7	2	1.1
Royal Society Journals Online	8	1.0	5	2.6
Royal Society of Chemistry	2	0.2	4	2.1
Sage Journals Online	93	11.4	17	9.0
ScienceDirect	90	11.0	38	20.1
Taylor & Francis	44	5.4	3	1.6
Wiley Online Library	72	8.8	19	10.1
Others	11	1.3	3	1.6

Source: Field Data, 2018.

Table 7, COHSS respondents were most familiar with JSTOR, while COH respondents knew ScienceDirect best. BIOONE was least known in COHSS, and Business Source

Complete was least known in COH. These findings also showed like in Table 9 that there are differences in database awareness based on college affiliation.

Channels of Awareness of Electronic Databases

The study investigated the sources through which the postgraduate students had become aware of the electronic databases. The table below shows the responses.

Table 8: Responses on the Means of Awareness of Electronic Databases

Sources	KNUST N=105		UG N=196	
	No.	Percentage	No.	Percentage
Library Orientation	64	26.8	100	20.1
Library Website	23	9.6	80	16.1
Library Staff	25	10.5	48	9.7
Newsletters	5	2.1	21	4.2
Colleagues	53	22.2	99	19.9
Lecturers	54	22.6	113	22.7
Notices	10	4.2	28	5.6
Others	5	2.1	8	1.6

Source: Field Data, 2018.

Publicity of Electronic Databases

To investigate the awareness of the electronic databases, the researcher sought to establish whether the library has well publicised the databases. Table 9 shows the responses.

Table 9: Responses on the Publicity of Electronic Databases by the Libraries

Publicity of Electronic Database	KNUST N=125		UG N=221	
	No.	Percentage	No.	Percentage
Yes	35	31.5	76	39.2
No	76	68.5	118	60.8
Total	111	100.0	194	100.0

Source: Field Data, 2018.

From Table 9, the majority of the respondents from KNUST and UG reported that the electronic databases have not been well publicised and these are represented by 76 (68.5%) and 118 (60.8%) responses respectively. This therefore means that despite library orientation being a major means of respondents awareness of electronic databases, the majority

of them did not consider it sufficient to create adequate awareness of the databases.

The Use of Electronic Database

The second was to identify the usage of electronic databases and, where applicable, which databases are used, frequency of use and purpose.

To identify the level of use of databases, postgraduate students were to choose from a list of databases which they utilise most.

Table 10: Responses on Electronic Databases Used by Postgraduate Students

Electronic Databases	KNUST N=117		UG N=207	
	No.	Percentage	No.	Percentage
UGSpace / KNUSTSpace	60	15.5	75	9.3
Academic Search Complete	21	5.4	48	6.0
African Journal	30	7.7	68	8.5
BIOONE	3	0.8	0	0.0
Business Source Complete	5	1.3	11	1.4
Chicago Journal	6	1.5	15	1.9
CINAHL Complete	2	0.5	6	0.7
EBSCOhost	17	4.4	30	3.7
Emerald Insight	29	7.5	50	6.2
JSTOR	52	13.4	122	15.2
MEDLINE	14	3.6	29	3.6
Online Annual Reviews	5	1.3	16	2.0
Project Muse	9	2.3	14	1.7
Royal Society Journals Online	5	1.3	4	0.5
Royal Society of Chemistry	6	1.5	2	0.2
Sage Journals Online	25	6.4	77	10.0
ScienceDirect	42	10.8	108	13.4
Taylor & Francis	19	4.9	47	5.9
Wiley Online Library	35	9.0	74	9.2
Others	3	0.8	7	0.9

Source: Field Data, 2018.

From Table 10, 97.6% of the respondents aware of electronic databases used them. For KNUST, the most used electronic databases mentioned was KNUSTSpace followed by JSTOR and ScienceDirect. For UG, the most used were JSTOR and ScienceDirect followed by Sage Journals Online and UGSpace. The least used were BIOONE, CINAHL Complete, Royal Society of Chemistry and Royal Society

Journals Online. A few also mentioned the use of PUBMED, Ghana Medical Journal and England Journal of Medicine.

Comparing Tables 5 and 10 reveals differences between awareness and usage of certain databases. For example, African Journal Online was well-known but less utilised. Similar trends were observed for institutional repositories and other databases

Table 10 was further cross-tabulated by the selected colleges in the respective universities. Table 11 shows the responses of the databases used by the colleges in KNUST.

Table 11: Responses on the Use of Electronic Databases by the Selected Colleges in KNUST

Electronic Databases	Humanities and Social Sciences N=85		Health Sciences N=32	
	No.	Percentage	No.	Percentage
KNUSTSpace	41	15.2	19	16.0
Academic Search Complete	16	5.9	5	4.2
African Journal	19	7.1	11	9.2
BIOONE	2	0.7	1	0.8
Business Source Complete	5	1.9	0	0.0
Chicago Journal	5	1.9	1	0.8
CINAHL Complete	0	0.0	2	1.7
EBSCOhost	11	4.1	6	5.0
Emerald Insight	25	9.3	4	3.4
JSTOR	43	16.0	9	7.6
MEDLINE	3	1.1	11	9.2
Online Annual Reviews	4	1.5	1	0.8
Project Muse	9	3.3	0	0.0
Royal Society Journals Online	1	0.4	4	3.4
Royal Society of Chemistry	1	0.4	5	4.2
Sage Journals Online	23	8.6	2	1.7
ScienceDirect	21	7.8	21	17.6
Taylor & Francis	17	6.3	2	1.7
Wiley Online Library	23	8.6	12	10.1
Others	0	0.0	3	2.5

Source: Field Data, 2018.

From Table 11, it can be observed that JSTOR is most used by COHSS respondents, while ScienceDirect is most used by COH respondents. The least used in COHSS include Royal Society Journals Online, and Royal Society of Chemistry, while in COH, they are BIOONE, Chicago Journal and

Annual Reviews Online. In addition, COH said they use PUBMED, Ghana Medical Journal and England Journal of Medicine. Database usage thus seems to differ depending on the college affiliation.

Table 12: Responses on the Use of Electronic Databases by the Selected Colleges in UG

Electronic Databases	Humanities and Social Science N=160		Health Sciences N=47	
	No.	Percentage	No.	Percentage
KNUSTSpace	67	10.2	8	5.6
Academic Search Complete	39	5.9	9	6.3
African Journal	58	8.8	10	7.0
BIOONE	0	0.0	0	0.0
Business Source Complete	11	1.7	0	0.0
Chicago Journal	15	2.3	0	0.0
CINAHL Complete	0	0.0	6	4.2
EBSCOhost	27	4.1	3	2.1
Emerald Insight	47	7.1	3	2.1
JSTOR	111	16.8	11	7.6
MEDLINE	12	1.8	17	11.8
Online Annual Reviews	13	2.0	3	2.1
Project Muse	14	2.1	0	0.0
Royal Society Journals Online	2	0.3	2	1.4
Royal Society of Chemistry	0	0.0	2	1.4
Sage Journals Online	66	10.0	11	7.6
ScienceDirect	71	11.2	37	25.7
Taylor & Francis	45	6.8	3	2.1
Wiley Online Library	60	9.1	14	9.7
Others	2	0.3	5	3.5

Source: Field Data, 2018.

JSTOR is most used by COHSS respondents as shown in Table 12, while for COH; ScienceDirect. Royal Society Journals Online has the least use in COHSS. In COH, it shares the least number with the Royal Society of Chemistry. Those not used in COHSS are BIOONE, CINAHL Complete and Royal Society of Chemistry, while in COH, BIOONE, Business Source Complete, Chicago Journal and Project Muse. These data point out that database utilisation differs by college affiliation and discipline.

Frequency of Electronic Databases Used by Students

The frequency of the databases used by students was ascertained as part of the examination of electronic database usage among postgraduate students. From Table 13, it can be observed that the majority of the respondents from KNUST (56.4%) and UG (65.7%) access the databases every day or on a weekly basis. A few responded that they use them on a monthly basis: 9.4% at KNUST and 6.3% at UG. It therefore implies frequent usage of the databases, with a higher percentage at UG compared to KNUST.

Table 13: Responses on the Frequency of Electronic Databases Used by Students

Frequency of Using	KNUST N=117		UG	
	No.	Percentage	No.	Percentage
Everyday	14	12	49	23.7
More than once a week	52	44.4	87	42.0
Once a week	19	16.2	39	18.8
Once a month	11	9.4	13	6.3
Rarely	21	17.9	19	9.2
Total	117	100.0	207	100.0

Source: Field Data, 2018.

Students' Purpose of using Electronic Databases

Finally, the researcher asked the specific academic purpose for which postgraduate students used the electronic databases by selecting among multiple choices given. Responses are shown in Table 14.

Table 14: Responses on Students' Purpose of using the Electronic Databases

Purpose of using Electronic Databases	KNUST N=117		UG N=207	
	No.	Percentage	No.	Percentage
Class assignment	82	21.5	154	19.6
Seminar presentation	32	8.4	97	12.4
Updating knowledge	42	11.0	68	8.7

Purpose of using Electronic Databases	KNUST N=117		UG N=207	
	No.	Percentage	No.	Percentage
Project works	72	18.9	22.3	18.6
Thesis / Dissertation	85	22.3	7.3	20.0
Report writing	28	7.3	61	7.8
Proposal presentation	40	10.5	102	13.0

Source: Field data, 2018.

The highest usage among the respondents at both institutions was to support their thesis and dissertation work. This is followed by class assignments and projects. Report writing had the least usage. This supports the earlier assertion that the main uses of databases by respondents were activities related to studies.

Influence of Information-Related Characteristics on Students Use of Electronic Databases

The third research objective attempted to study the nature of the electronic databases, which influences the usage of electronic databases.

Table 15: Responses on the Influence of Information-Related Characteristics on Students Use of Electronic Databases

Influence of Information Related Characteristics on Electronic Database Usage	KNUST (N=117)		UG (N=207)	
	No.	Percentage	No.	Percentage
Yes	102	87.2	191	92.3
No	15	12.8	16	7.7
Total	117	100.0	207	100.0

The highest proportion of respondents from both KNUST (87.2%) and UG (92.3%) were influenced by the information contained in them. Finally, respondents were asked what exactly influenced them, Table 16 shows:

Table 16: Responses on the Influence of Specific Information-Related Characteristics on Students Use of the Electronic Databases

Information-Related Characteristics	KNUST (N=102)		UG (N=191)	
	No.	Percentage	No.	Percentage
Up to Date	33	15.2	114	19.6
Accurate	34	15.7	96	16.5
Relevant	68	31.3	144	24.7
Full-text	44	20.3	125	21.4
Abstract	27	12.4	78	13.4
Local Content	11	5.1	26	4.5

As indicated in the table, relevance is the most critical information-related characteristic for the respondents: KNUST 31.3%, UG 24.7%. Full-text options were also important: KNUST 20.3%, UG 21.4%. Abstract options and local content were less important: KNUST 12.4%, 5.1%; UG 13.4%, 4.5%, which goes to show that full-text databases and relevance are preferred over abstracts and local content.

Influence of Design Features on Students' Use of the Electronic Databases

In a quest to determine the design feature which influenced students, respondents who use the databases were asked to simply respond with a "YES or NO" if the features influence their use or otherwise. Table 17 shows the responses.

Table 17: Responses on the Influence of Design Features on Electronic Databases Use

Influence of Design Features on Electronic Databases Usage	KNUST (N=117)		UG (N=207)	
	No.	Percentage	No.	Percentage
Yes	95	81.2	178	86.0
No	22	18.2	29	14.8
Total	117	100.0	207	100.0

Table 17 reveals that the majority of the respondents each from KNUST and UG were influenced to use the databases by design features.

Respondents who attributed their database use to design features were asked to select the influential factors. Table 18 presents the responses.

Table 18: Responses on the Influence of Design Features on Students' Use of the Electronic Databases

Design Features	KNUST (N=95)		UG (N=178)	
	No.	Percentage	No.	Percentage
Convenient to use	59	45.7	132	40.7
Attractiveness	16	12.4	46	14.2
Good and simple Interface	28	21.7	64	19.8
Ease in Navigating databases	26	20.2	82	25.3

As could be seen from Table 18, the most important design feature was that a database should be easy to use: KNUST 45.7%, UG 40.7%; followed by interface simplicity: KNUST 28, UG 82; while attractiveness was the least important: KNUST 12.4%, UG 14.2%. This means that students prefer the ease-of-use factor over any other aesthetic features in using a database.

CONCLUSION AND RECOMMENDATION

This study assessed the awareness, frequency of usage and how characteristics of databases influence electronic database usage of postgraduate students at KNUST and UG. Results showed that most students were aware of the availability of these databases; however, the usage of some of the databases was low. Most of these students use databases for academic activities based on relevant information availability, full-text options and ease of use.

From this result, the following should be done to increase database usage: Library websites should be promoted through targeted online marketing campaigns. Technical problems should be resolved in order to make databases easier to use. Qualitative research, like interviews and focus groups, will help outline what specific issues need to be improved upon by libraries.

These recommendations, if put in place, will therefore go a long way toward helping institutions advance electronic database usage amongst their postgraduate students and enrich their academic lives.

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