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August 2020

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Kwesi Gyesi
kgyesi@ug.edu.gh

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Gyesi, Kwesi, "Information Seeking Behaviour of Graduate Students of the University of Professional Studies, Accra (UPSA)" (2020). *Library Philosophy and Practice (e-journal)*. 4155.
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**Information Seeking Behaviour of Graduate Students of the University of Professional
Studies, Accra (UPSA)**

BY:

KWESI GYESI

BALME LIBRARY OF THE UNIVERSITY OF GHANA

kgyesi@ug.edu.gh

Acknowledgement

I wish to acknowledge Dr. Evelyn Dedei Markwei (of blessed memory) for her guidance and useful suggestions to the successful completion of this research.

ABSTRACT

A study of the information seeking behaviour of students is an important pre-requisite for a library to provide efficient information resources and services to meet their information needs. The aim of the study is to investigate the information needs, information sources, information seeking behaviours, library use, and challenges to information seeking behaviour of graduate students of the University of Professional Studies, Accra (UPSA). The study employed the survey methodology to select 121 graduate students using stratified random sampling. The main data collection instrument was the questionnaire. The main information needs of students identified in the study include career information, self-development, employment, course information, health, entertainment, sports, and religion. They use five main categories of information sources: interpersonal, internet, mass media, electronic and print. Their information seeking behaviours include active search, passive search, and ongoing search. The challenges they encountered in seeking information are mostly technical, which are, unstable internet connection, low internet speed, issues regarding accessibility using password, and inadequate computers. The study concluded that it is important for the university authorities to work together with the library to address these problems so that the information needs of students are fully met to enhance their academic work.

Keywords

Information need, information seeking behaviour, library use, information sources, active search, passive search, and ongoing search.

INTRODUCTION

Libraries and information centres are equipped with both the traditional and electronic information resources offering users a variety of information sources to meet their information needs. In so doing, Wilson (2000) defines information seeking behaviour as “the purposive seeking for information as a consequence of a need to satisfy some goal” (p. 49). He further mentions that people use both manual and computer-based information systems to satisfy their information needs. These needs according to Wilson (2000) are influenced by factors such as information sources which encourage use of the information and the users’ characteristics. The individual consult various sources to meet those needs.

According to Veloutsou, Paton and Lewis (2005), there are three major categories of information sources, namely: controllable information sources such as brochures, booklets CDs and institutional websites; non-controllable information sources provided by external sources such as colleagues, family members and media; and partly controllable and partly non-controllable information sources which include magazines, web-based sources and newspaper publications. The library is one major information sources for the graduate. The availability of information is important but its use by students is the most important since that is the only way that the information will transform to knowledge (Olajide & Otunla, 2015). The library must be aware of the information that is needed by its patrons and how it can be acquired. This will help the library to provide efficient services and project itself as the main information provider for students’ research and course work (Pareek & Rana, 2013).

Currently, the internet has been one of the major sources of information irrespective of the time and location. Most of the information on the internet is current since they are published every day, and is quite faster and easier to publish online than using the printed format. This has helped to solve the challenges of accessibility of these information resources. What one needs is a computer connected to a modem or WIFI to enable access to the vast information resources on the Internet (Echezona, Okafor, & Ukwoma, 2011).

Problem Statement

Universities across the world, including Ghana, are investing more in electronic databases, but studies have shown that such investments are often not cost effective because students in some universities, especially in Africa, under-utilize these resources (Kwadzo, 2015).

Some of the reasons for under-utilization of electronic databases are basically technology-related challenges including:

- I. inadequate computers
- II. unstable internet connection
- III. need for passwords to access information
- IV. low internet speed
- V. lack of training of library staff (Al-Saleh, 2002 as cited in Al-Saleh, 2004; Fasola & Olabode, 2014; Rice, 2003).

These factors hinder their information seeking. An informal chat with the UPSA librarian revealed that students have difficulties accessing the library resources, especially the e-resources.

Rice (2003) also mentions that finding and evaluating the reliability of the level of graduate students' skills in an electronic environment, and how many students are able to retrieve the right information is difficult. Some students often get confused in the course of their information seeking. This is confirmed by Kuhlthau (1999), who states that in the early stages of seeking information, students mostly have challenges. In the beginning many of the students are sure of finding the required information but then get confused or uncertain during the process. Other challenges faced by students in their information seeking include unstable Internet or network infrastructure, lack of search skills, information scattered in many sources, non-supportive staff,

lack of awareness, unavailability of materials, out-dated information and lack of time to access information (Fasola & Olabode, 2014; Okonoko, Ojukwu & Deborah, 2015).

A review of the literature revealed that students information seeking behaviour studies have been conducted at the University of Ghana (Badu, 1991), Methodist University College (Opare-Ababio, 2011) but not at UPSA. It is important for librarians and information professionals to have knowledge about the information seeking behaviours of students and to be able to design effective information services and information literacy programs to meet their information needs (Fidzani, 1998).

Objectives of the Study

The specific objectives of the study are to:

1. Investigate the information needs of graduate students.
2. Find out the extent of library use among graduate students.
3. Ascertain their sources of information.
4. Determine their information seeking behaviours.
5. Find out the challenges they encounter in seeking information.

Literature review

Information seeking behaviour

Information seeking behaviour according to Case (2002) is a common everyday activity which becomes prominent when one has to make a major life decision or complete a task within a specified time. In such circumstances the individual keeps looking for information from various sources till his need is met or his goal accomplished. On other occasions information seeking is triggered when one accidentally becomes interested in a topic and decides to look for more information on it to educate him or herself. Such information seeking is not inspired by a specific goal. Case (2002) describes such information seeking as a “common aspect of human life” (p.5).

Information seeking has often been defined as a search for information as a result of a need or a gap in one's knowledge. For example, Wilson (1999) defines information seeking behaviour as a "consequence of a need perceived by an information user, who, in order to satisfy that need, makes demands upon formal or informal information sources or services, which result in success or failure to find relevant information" (p. 251).

- I. Wilson (2000) again defines information seeking behaviour as "the purposive seeking for information as a consequence of a need to satisfy some goal. In the course of seeking, the individual may interact with manual information systems (such as a newspaper or a library), or with computer-based systems (such as the World Wide Web)" (p. 49).
- II. Case (2002) defines information seeking as "a conscious effort to acquire information in response to a need or gap in your knowledge" (p.5).
- III. Some authors have provided more general definitions. For example Uhegbu (2007) describes information seeking behaviour as the way the users behave in terms of searching for information.
- IV. Ajiboye and Tella (2007) describe information-seeking behaviour as "the way and manner people gather and seek for information for their personal use, knowledge updating and development." (p. 42)
- V. Majid and Kassim (2000) define information seeking behaviour as "a broad term, which involves a set of actions that an individual takes to express information needs, seeks information, evaluates and selects information, and finally uses this information to satisfy his/her information needs" (p. 2). The process of seeking information and the degree to which the seeker satisfies the need depends on the level of information seeking, searching and use, that is, the knowledge and skills an individual possesses (Kaniki, 2001).

In order for the individual to satisfy those needs, he or she undergoes an information seeking process. The processes that take place in information seeking behaviour are:

- I. “Identifying objective
- II. Defining need
- III. Accessing information systems
- IV. Establishing sources of information
- V. Information acquisition
- VI. Use of information
- VII. Satisfaction/dissatisfaction” (Prasad, 1992, p.9).

According to Prasad (1992) information seeking behaviour refers “to the strategies and actions undertaken to locate discrete knowledge elements. It can be said the behaviour which yields the highest information satisfaction is the best (p.9)”

This study adopts Wilson’s (1999) definition of information seeking behaviour and therefore investigates the information needs, sources of information, and challenges of information seeking by students of University of Professional Studies, Accra (UPSA).

Information seeking behaviour studies

This section will review the literature on information seeking behaviour of students, including graduate students, with a focus on their information needs, sources of information, challenges of their information seeking, information use and their information behaviours. Several studies have been conducted to investigate the information seeking behaviour of students in different parts of the world.

In Asia, Al-Muomen (2009) examined information seeking behaviour at Kuwait University. The study explores the information seeking behaviour of graduate students at Kuwait University, and investigates the factors that influence that behaviour. The study used mixed methods comprising a questionnaire, focus groups, and semi-structured interviews. 370 respondents participated in the study, made up of more females (67.0%) than males (33.0%). From the study, the majority searched for information to complete their course work (69.2%). This was followed by term papers (42.4%), comprehensive assignments (20%), and the rest was for other reasons such as writing research papers, looking for information related to their thesis, and browsing for general information. In addition, the study also sought for the sources of help when they faced difficulties in terms of searching; most of them said they receive help from their friends/colleagues (62.2%) and tutor/lecturers (37.3%). The study used the seven-point Likert scale. It was found that the challenges of seeking information were access to the internet, computers, and printers (Likert scores 5.55-5.30) with interlibrary loans being the least at 3.82. Likert scale was used to represent people's attitude of the study.

In Pakistan, Khan, Khan, and Bhatti (2011) investigated internet access, use and gratification among university students: a case study of the Islamia University of Bahawalpur, Pakistan. Data collection was through the use of questionnaire, also the study adopted survey methodology. A purposive sample was used to sample 100 students. The study revealed that most of the students prefer to use Google search engine (83%). In addition, the preferred database use was ScienceDirect (25%). Most of the students encounter certain difficulties, namely: difficulty in finding relevant information, lack of knowledge about advance searching, inadequate computers, and overload of information.

In India, Natarajan (2012) studied information seeking behaviour of students of management institutions in NCR of Delhi. A questionnaire was prepared for 250 respondents. It was found that majority visit the library daily (66.5%) and that the internet (55%) was the source consulted by students. Most of the students seek information to keep up with current developments (92.3%). The problems they encounter when seeking information, in descending order are: they don't know the sources available in the library (49.7%), don't know how to use the information retrieval tools (40.6%), information materials are old (36%), materials are not available (34%),

lack of time (26.9%), information sources are located so far away (20.8%), and the library staff is unwilling to serve (15.2%).

In the northern part of India, Bhatia (2011) reported on the use of electronic resources in degree College libraries in Chandigarh. A structured questionnaire was designed and given to 770 respondents who were randomly selected. The result revealed that most of the respondents use electronic books (47.27%), electronic journals (39.22%), bibliographic databases (31.56%) and CD-ROM databases (29.35%). It was also realized that few users frequently used the electronic resources/databases. This is because of the following challenges they encounter, namely: lack of IT knowledge and skills, limited access to computers, it distracts their work and too much information is retrieved.

Yusuf and Iwu (2010) investigated use of an academic library: a case study of Covenant University, Nigeria. The study employed survey methodology, and 300 students and 100 faculties were sampled using stratified sampling techniques. A questionnaire was the main data collection instrument. The findings show that most respondents, that is the students, visit the library 2-3 times a week (53.3%), followed by daily (35.7%), once a week (7.1%) and 2-3 times a month (3.9%). In addition, most of the respondents visit the library to make photocopies (92.8%). The most consulted materials or library resources of the students were newspapers (59.5%) and the means of locating information was by the use of OPAC (61.9%), followed by browsing the shelves (20.4%), seeking assistance from library staff (12.0%) and seeking assistance from colleagues (5.7%). Lastly, the participants were very satisfied (79.5%), satisfied (15.7%) and not very satisfied (4.8%).

METHODOLOGY

This study employed a survey research methodology. This study used the regular graduate students of University of Professional Studies, Accra (UPSA) total of 804 pursuing eight different programmes at UPSA for the 2015/2016. Graduate students were chosen because at their level it is expected that they use such resources provided by the library. Graduate students who attend school in the evenings and weekends were excluded from the study because of the difficulty in reaching them as a result of their irregular class schedules. Thus, their information seeking behaviours are not expected to be different from their counterparts with regular time schedules, that is, those who attend classes during the day.

The researcher used stratified sampling techniques was used to select 121 students (15%) who responded to a questionnaire. The 15% sample size was based on Alreck and Settle's (2004) proposition that if the population is less than about 1000 and larger than the minimum of 100, then a sample of more than 10% can be used.

Out of the one hundred and twenty-four (124) questionnaires administered, 115 were completed and returned, giving a response rate of 92.7%. The consensus in survey research is that a response rate of 50% is adequate for analysis, 60% is good, and 70% is considered as very good (Babbie and Mouton, 2001). Thus the response rate of 92.7% for this study can be said to be excellent based on Babbie and Mouton's (2001) assertion.

FINDINGS

Information Need

Table 1: Purposes of looking for Information

N=115		
Purposes of looking for information	Frequency	Percentage
Career development	92	80.0
Self-development	76	66.1
Current affairs	71	61.7
Employment	71	61.7
Research	66	57.4
Course work	43	37.4
Entertainment	40	34.8
Politics	40	34.8
Global information	39	33.9
Health, and football	38	33.0
Higher education	32	27.8
Recreational activities	27	23.5
Sports	23	20.0
Religion	16	13.9

Source: Field survey, 2016

The analysis of the purposes for which respondents look for information and the purposes for which they visit the library (Table 1) their information needs are mostly cognitive or course related. Majority of the respondents indicated that they look for information on career development (80.0%), followed by self-development (66.1%), current affairs (61.7%), and employment (61.7%). Other needs are entertainment and politics (34.8%), global information (33.9%), health, and football (33.0%), higher education (27.8%), recreational activities (23.5%), sports (20.0%), and religion (13.9%).

Sources of Information

Table 2: Summary of Information Sources

Categories of information sources				
Interpersonal sources	Internet sources (search engines)	Electronic sources	Media sources	Print sources
Self (74%)	Google (86.9%)	E-books (77.4%)	Radio (5.2%)	Textbooks (58.3%)
Colleagues (67%)	Yahoo (80.9%)	E-journals (60%)	T.V. (5.2%)	Lecture notes/handouts (51.3%)
Supervisors (51%)	Ask.com (40.9%)	CD-ROMs (45.2%)		Dictionaries/encyclopaedias (40.9%)
Reference librarian (31%)	YouTube (39.1%)	E-newspapers (40.9%)		Pamphlets (37.4%)
Family members (14%)	Google Scholar (36.5%)	E-magazines (33%)		Journals (35.7%)
Lecturers (7.8%)	Bing (8.7%)	Academic databases (27%)		Handbooks (34.8%)
Expert in the field (3.5%)		E-images (17.4%)		Theses/dissertations (34.8%)

Source: Field survey, 2016

On the interpersonal sources, the findings reveal that 73.9% of respondents look for the information themselves. 67.0% ask their colleagues, 60.0% use review articles, 51.3% consult their supervisors, 34.8% use the library catalogue, 31.3% consult the reference librarian and 1.1% consult knowledgeable person in the field. This findings show that majority of the respondents prefer to look for information by themselves rather than asking others. In relation to

internet sources, the findings indicated that majority of the respondents use Google search engine representing 87.0%, Yahoo search engine representing 80.9%, Ask.com representing 40.9%, YouTube representing 39.1%, Google Scholar representing 36.5% and Bing representing 8.7%.

The findings on the electronic sources indicate that the majority of the respondents use e-books being 77.4%, e-journals being 60.0%, CD-ROMs being 45.2%, e-newspapers being 40.9%, e-magazines being 33.0% and e-images being 17.4%. No respondent used the e-audio as an electronic source for academic work. The result on the print sources revealed that majority of the respondents uses the printed textbooks (58.3%) as against lecture notes and handout (51.3%). Many of the respondents were in the range of forties including dictionary/encyclopedia (40.9%), newspapers (38.3%), reference materials (37.4%), printed pamphlets (37.4%), printed journals (35.7%) and handbooks (34.8%). The least ones were academic databases (27.0%) and research reports (21.7%).

Library Use

Frequency of library visit

Table 3: Frequency of library visit

Frequency of library visit	Frequency	Percentage
Three times a week+	41	35.7
Twice a week	22	19.1
Daily	21	18.3
Occasionally	13	11.3
Four times a week+	10	8.7
Once a week	8	7.0
Total	115	100.0

Source: Field data, 2016

The findings showed that most of the participants' visit the library three times a week (35.7%), (19.1%) visit the library twice a week, (18.3%) visit the library daily, (11.3%) visit the library occasionally, (8.7%) visit the library four times a week and (7.0%) visit the library once a week.

Information Seeking Behaviour

Table 4: Methods for seeking information

N = 115		
Methods for seeking information	Frequency	Percentage
Use Google and Google Scholar	83	72.2
Browse books on the shelf	64	55.7
Browse the internet	47	40.9
Search electronic databases	46	40.0
Search the manual catalogue	36	31.3
Inquire from fellow students	33	28.7
Use OPAC	32	27.8
Inquire from lecturers	32	27.8
Ask the reference librarian	32	27.8
Reading required textbook	26	22.6
Going through and accessing references at the end of journal articles	8	7.0

Source: Field survey, 2016

Wilson (2000) identified four (4) main types of information seeking behaviours as active search, passive attention, passive search, and ongoing search. Most of the information seeking behaviours revealed in the study is active searching. They include use of Google and Google Scholar (72.2%), browsing books on the shelf (55.7%), browsing the internet (40.9%) and searching electronic databases (40.0%). Others are inquiring from fellow students (28.7%), using OPAC, inquiring from lecturers and asking the reference librarian (27.8%), reading required textbook (22.6%) and accessing references at the end of journal articles (7.0%). The students actively search for information because they need to complete assignments, prepare for presentations/seminars, update lecture notes etc. A few of the students (5.2%) also used passive attention by using the radio and TV as a source of information. The students who looked for information to complete projects, theses/dissertations can be said to be using ongoing search.

The researcher was surprised to note that only few graduate students (27.8%) consulted the Reference Librarian (27.8%). This may be due to the negative attitude of library staff, inadequate library staff to consult or unavailability of library staff as explained below.

Challenges of Seeking Information

Challenges

Table 5: Challenges encountered in seeking information

	No.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Likert Scores
Inadequate computers	115	2.6	13.9	17.4	59.1	7.0	3.54
Unstable internet connection	115	6.1	34.8	16.5	29.6	13.0	3.09
The need for passwords to access information	114	6.1	17.4	41.7	29.6	4.3	3.09
Low internet speed	115	2.6	31.3	27.8	33.9	4.3	3.06
Lack of time	115	4.3	32.2	33.9	24.3	5.2	2.94
Computer viruses	115	5.2	27.0	42.6	20.0	5.2	2.93
Too much information	112	3.5	34.8	28.7	28.7	1.7	2.90
Don't know how to use the e-resources	115	5.2	36.5	27.0	27.0	4.3	2.89
Frequent power cuts	115	1.7	45.2	27.8	21.7	3.5	2.80
Inadequate search skills	115	6.1	43.5	27.8	15.7	7.0	2.74
Outdated library materials	115	7.0	49.6	13.9	26.1	3.5	2.70
Restrictive opening hours	114	5.2	50.4	21.7	15.7	6.1	2.67
Inadequate information materials	115	9.6	55.7	11.3	18.3	5.2	2.54
Negative attitude of library staff (eg. Rude, unfriendly, not helpful)	113	13.0	52.2	9.6	17.4	6.1	2.50

Inadequate library staff to consult	115	27.8	41.7	6.1	19.1	5.2	2.32
Unavailability of library staff	115	33.0	36.5	7.8	18.3	4.3	2.24

Source: Field survey, 2016

The challenges of information seeking revealed in the findings include unstable internet connection (Likert scale 3.09), the need for passwords to access information (likert scale 3.09) and low internet speed (likert scale 3.06). Others are inadequate computers (likert scale 3.54), information overload (likert scale 2.90) and lack of skills (2.89).

DISCUSSION OF FINDINGS

The findings in Table 1 suggest that apart from their academic work, the students are also concerned about their future. This is clearly shown by the high percentage of students (80%) looking for information on career development, self-development (66.1%), and employment (62%). In other words, they aspire to join the work force immediately after graduation. A few of the students (27.8%) also aspire to continue their education after graduation hence looking for information on higher education. The findings also suggest that the students look for interest based information such as current affairs, politics, entertainment, sports, religion and health information. The findings on looking for information on self-development, career development, employment, current affairs, and course work reported in the current study are consistent with those of Natarajan (2012) which reported that students in Dehli, India also look for information to keep abreast with current developments, to develop competence, and for career development and course work purposes such as workshop, seminar presentations and research. This finding is inconsistent with Al-Muomen (2009). They reported that majority of the postgraduate students look for information to complete their course work, term papers, comprehensive assignments, and the rest was for other reasons such as writing research papers, looking for information related to their thesis, and browsing for general information. It is evident from the findings that students in the current study are not just focused on academic work but are pursuing other needs concurrently.

Interpersonal sources

This finding in Table 2 is dissimilar with the findings of Dzansi (2008) who found that majority used lecturers and lecture notes. This can be due to the fact that students hardly read outside what the lecturer has given them. They only depend on the easiest way of seeking information but in the study students are abreast with looking for information themselves.

Internet sources (search engines)

The finding Table 2 that Google is the most used search engine in their information seeking is consistent with Khan, Khan, and Bhatti (2011). They reported that Google was the most used search engine by students of Islamia University of Bahawalpur. Patitungkno and Deshpade (2005) explained that Google is the preferred search engine because it is regularly updated, provides links to multiple websites, and it is very fast. The researcher expected the students in the current study to use Google Scholar because it provides more scholarly information which is suitable for graduate work. The researcher agrees with Nadzir (2015) that the students are probably not aware that Google Scholar has more scholarly information relevant for their academic work. There is a need for the students to be educated about the scholarly contents of Google Scholar.

Electronic sources used for academic work

It is in agreement with Bhatia (2011) who found that most of the respondents found electronic book (25.84%) as the most used electronic source. Markwei (2001) also mentioned that even though most students are aware of electronic resources they are under-utilized.

Library resources for academic work

The findings revealed that students use both print and electronic resources. This is consistent with Yusuf and Iwu (2010), who found that students use newspaper (59.5%), reference materials (42.8%), electronic resources (33.3%), past students' project, textbooks (7.1%), and journal (3.9%). He also found out that students use both print and electronic resources.

The findings in Table 3 shows that most of the participants' visit the library three times a week (35.7%), This apparent few number of visits by students to the library must not be translated as underutilization of the library since the library has e-resources and e-databases that can be

accessed from remote locations without being physically present in the library. The findings are inconsistent with those of Natarajan (2012) who said that management students in a university in Dehli visited their library daily (66.5%), followed by 14.2% once in a week and least of 9.2% respondents visit very rarely.

The findings revealed that the challenges of information seeking revealed include unstable internet connection, the need for passwords to access information and low internet speed. They are mostly technological challenges described by Wilson (1999) as environmental factors. These findings are consistent with those of other studies such as Al-Muomen (2009) and Dzandu and Boateng (2013) who also reported environmental challenges such as lack of access to the Internet and online e-resources because of poor connectivity and inadequate computing/Internet access points, cumbersome password system, lack of off-campus access, lack of technical support and difficulty in following ICT procedures of the UGLS, and difficulty in locating print materials in the libraries, which are mostly out-dated.

Conclusion

The study investigated the information seeking behaviour of graduate students at UPSA. The findings revealed that their information needs are largely cognitive as students. They use both electronic and print resources but not without challenges. It is obvious that the students have a preference for electronic resources, especially Internet sources, considering the fact that most of the challenges they articulated are technologically related. It is important for the university authorities to address these challenges so that the information needs of students are fully met.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. Improvement of infrastructure

The findings revealed that majority of the respondents use the Internet as their main source of information for their research and course work. Therefore, there is the need for the improvement of infrastructure in UPSA to facilitate easy access and retrieval of

relevant information from the electronic databases. There is the need for authorities to provide the necessary infrastructure that will help the graduate students to access the Internet and the academic databases provided in the library. There is the need for continuous maintenance of system, library dedicated server must be installed and the speed of the server must be upgraded. There should be provisions for more computers and increased Internet bandwidth to alleviate the challenges of slow Internet speed. These will improve accessibility of e-resources thereby making graduate students more knowledgeable and to produce quality research work that will contribute to the development of the country, Ghana.

2. Information Literacy Skills

Information literacy programmes will help the graduate students in identifying and selecting the appropriate information resources. The graduate students must attend information literacy programmes in order to be aware of all the electronic resources that are important for their research work to be informed about different information resources, such as the print, electronic, interpersonal and internet sources, techniques of using those sources, evaluation and the ethical principles in the use of these sources, and to acquire the requisite search skills needed to use the electronic resources, since most of the respondents indicated that they lacked the skills for searching electronic resources. This information literacy programme must be well-organized by the librarian in conjunction with the Graduate School for a wider and greater impact on the students

3. Awareness of the library

There is the need for the library to create awareness of the services and resources available. The findings revealed low library patronage. The library must aggressively promote its resources and services by adopting new marketing strategies such as use of social media (examples whatsapp, facebook, twitter, linkedIn, etc.), considering the fact that the students have a preference for using Internet in their information seeking. Also, the graduate students must be encouraged to attend the information literacy programme that will be organized by the library to increase their awareness of the electronic resources and how to use them for their research work.

4. Training

The findings revealed inadequate and unfriendly library staff. There is the need to train the library staff to acquire good interpersonal and customer service skills so that they are approachable, friendly, and helpful to students in their information seeking.

5. Enhancement of collection

The findings revealed that the library materials are outmoded. The university must therefore provide the library with more funds to update the collection with current materials to meet the information needs of students and to increase patronage of the library. The library must invest in more print collection as well as electronic collection including electronic databases. This enhancement of collection can be done by consulting with students and lecturers for recommended materials needed to develop and update collection for greater benefit to all patrons.

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