Perceptions of Postgraduate Students on Accessibility of Print and Electronic Information Resources at Mahatma Gandhi Library

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ABSTRACT

The increase in research output in the 21st century has made postgraduate students to adopt new ways of information searching and this has had a bearing in the way they perceive and use library information resources in both formats. This has made it critical to establish their perceptions in order to ensure that university libraries invest only in those resources that have the potential to support post graduate research. The study therefore sought to determine perceptions of post graduate students (PGs) towards accessibility of print and electronic information resources (EIRs). The study reviewed current research study findings on perceptions under the main theme on accessibility. It was based on Social Cognitive Theory (SCT) advanced by Albert Bandura in1986. A descriptive research design was adopted. Independent variables constituted a comparison on the use, accessibility, relevance and preference towards choice of format between print and EIRs. Dependent variable was use of print and EIRs. The target population was 3159 postgraduate students enrolled for Business Administration program in the School of Business (SOB) at the UoN. Convenience sampling, which is one of the non-probability sampling methods, was applied to identify a representative sample size for PGs enrolled in the Business Administration progam, SOB. Using Yamane Taro (1967) mathematical formula, a sample of 97 respondents was drawn. The questionnaire was the main data collection tool. Validity was ensured through conducting a pilot study at Technical University of Kenya (TUK) using a pilot data of 10 PGs. Cronbach's alpha coefficient value greater than 0.7 was used to test reliability of the questionnaire. Qualitative data was analyzed thematically while Quantitative data was analyzed using descriptive statistics via Statistical Packages for Social Sciences (SPSS) Version 23 and presented through percentages, frequencies, pie charts, tables and graphs. Logistical and ethical considerations were strictly adhered to. The profound study findings were that majority of PGs across age highly used both information formats and that these formats would continue to coexist supplementing each other. However, divergent views of a few alluded to the fact that technology will obliterate print resources thereby pointing to emergence of paperless libraries and therefore, future studies need to explore this notion further. The study recommended that university libraries continuously endeavor to acquire a hybrid collection so as to fully support PG studies as none of these information resources is exclusive of the other. It also gave key suggestions for further research especially, a study on students' perceptions towards the use of both information resources in this era of university education realignment where Competency Based Curriculum (CBC) reforms are taking centre stage to drive competencies.

Key Words: Student Perceptions on Information Resources, Print and Electronic Information Resources, Mahatma Gandhi Library

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1.0 Introduction

Perceptions of postgraduate students worldwide towards the use of print and EIRs are critical in that they have the potential to enable university libraries to acquire information resources which suit their information needs. These information resources play a key role in teaching, learning and research in university education. A lot of effort is thus made by university libraries to acquire critical information resources in order to meet the information needs of library users. To this end therefore, it can be said that perceptions to a large extent determine usage levels in any academic library. In his definition of perception, Akpojotor, (2016) alluded that it involves a process where information from the environment is selected, received, organized and interpreted to make it meaningful to an individual thereby resulting in making decisions and taking actions. Posigha *et al.*, (2018) further noted that studying a perception towards a particular situation leads to an understanding of the feelings towards that situation. Hence, studying perceptions of PGs towards the use of print and e-resources would enable the researcher to know how they perceived and used them.

It is evident that the introduction of e- resources and digital libraries in the 21st century has transformed the way students utilize library information resources worldwide. In fact, Cox, (2020); McCaffrey, (2019) and Chen, (2017) have noted that the traditional roles of libraries have undergone major transformation due to technology advancement and currently, most libraries especially those attached to institutions of higher learning have either fused or incorporated into their collection development policy strategies for acquisition of e-resources so as to satisfy the needs of their wide range of information users. The information explosion has drastically affected the way users perceive and use information due to its availability and accessibility. Therefore, in order to continue being relevant in the digital era, university library management have been prompted to acquire both print and EIRs including print books and journals, besides subscribing to various e-resources like e-journals, eBooks, full-text databases and reference databases for dictionaries and encyclopedias respectively (IFLA, 2012). In this vein, PGs require well-equipped and functional university libraries (Thanuskodi, 2012). These sentiments are also shared by Dahan et al, (2016) where he asserts that university libraries are expected to put in mechanisms that allow access to a wide range of both print and e-formats. Okon, (2013) avers that though for many decades print formats have been highly relied upon as the main platform for information access and utilization in teaching, learning and research in universities, today they face stiff competition from EIRs which are timelier and faster in information delivery and access. Since Users' satisfactions determine usage levels of library holdings, academic libraries have a responsibility to justify their existence by providing access to up-to-date, adequate and relevant information resources that meet users' needs. When acquiring these resources, the library management expectations have been that since PGs are involved in conducting intensive research, they need both formats as basis for acknowledging their works. However, the general observation is that in many academic libraries, there is always an inclination in the usage of either print or EIRs among the users depending on their information needs. This could probably be due to the opinions they hold towards these two information resource formats as, perceived advantages of one over the other is likely to determine the level of usage.

Worldwide, University library management faces the dilemma of acquiring print and EIRs in the absence of adequate data on user perceptions towards their use. In the wake of information explosion, they are probably not able to compare extensively the use of both formats by students including PGs who need research information to conduct their studies. Kumar (2016) suggested that, if information resources in a library are accessible in different formats, users 'needs should be determined to ensure a need-based collection is acquired. The researcher therefore concurs with this view that it is necessary to know the perceptions held by PGs in as far as usage of both formats is concerned before university libraries invests in them. Globally, several studies comparing the use of both print and EIRs have been conducted. In these studies however, the key topics discussed are mostly on the ratio of preference in comparison to print resources as highlighted by Nicholas, Rowlands, Clark, Huntington, Jamali, & Olle', (2008). Perceptions on the benefits of e-book use have also been discussed by Cassidy, Martinez, & Shen, (2012). Impact of e-books on study and teaching have also been alluded to by Annand, (2008); Muir & Hawes, (2013); Szapkiw, Courduff, Carter, & Bennett, (2013). This reveals a gap in that not much has been comprehensively discussed in relation to the study variables comparing the use, perceptions on accessibility on accessibility of print and electronic information resource formats. This research study therefore aimed at wholly unpacking these variables in order to address the gap.

In USA, Melcher, (2017) conducted a study at Carmichael library, University of Montevallo, Alabama, US. The findings showed that 59.6 % of the respondents had a preference for print books, though they also occasionally used e-books. Considering that this study was based in the US, which is more developed socially and economically, it was not easy to localize the findings to a Kenyan university context where the current study was based. Again, even though the study showed that print books were read more frequently than the e-books, it did not indicate the reasons that informed their choices among respondents. The researcher therefore sought to establish this in the current study. In China, Ming-dour Wu & Shin-Chun Chen (2011) study findings showed that PGs from humanities preferred print books if both the formats of books were available to them. However, the same study shows that Medical students in contrary preferred to use e-book compared to print books as these were heavy to carry. In this study, students indicated that they liked to download the electronic books as per their needs.

In Africa, a case in point is Nigeria where Adigun, Zakari and Andrew (2010) research findings at Ahmadu Bello University Zaria, showed a high usage of print information resources compared to EIRs which were also readily available in the library. Their study results indicated a score of 76% for print books and 75.4% for journals while e-books and e-journals scored 62% and 54% respectively among PGs and therefore revealing a higher rate of print than eresources use. Idiegbeyan-Ose et al., (2019) on the other hand held a divergent view when he asserted that availability of print and electronic formats in a library are very key to PGs learning, teaching and research thus advocating for the use of both. The researcher observes that majority of these studies focused at comparing usage of both formats without indicating why students opted for one format over the other. On the East African scene, reviewed studies like those conducted in Tanzania among individual institutions have mainly focused on user behaviour towards e-resources use and yet, to-date there is no evidence of a study that has been conducted on users preferences towards the use of the two information formats across university libraries. However, evidence of research works geared towards usage of e-resources includes those of Katabalwa (2016) on the use of e-journal resources by PGs based at the University of Dar es Salaam. The findings revealed an inclination towards e-resources by majority of students who used them for various purposes to supplement printed resources. However, the limitation of this study was that it did not survey the usage of other information formats such as print resources therefore revealing the research gap. In this regard, the researcher notes that university libraries in Africa just like elsewhere in the world continue to acquire both print and electronic information resources without much evidence to indicate if both formats have the same appeal to PGs research and information needs. This needs to be investigated.

Narrowing the analysis down to the Kenyan perspective, it is clear that many reviewed studies have mainly focused on e-resources usage by students in libraries. For instance, Makokha & Mutisya, (2016) status report on e-learning in Kenyan public universities reveal that all public universities in Kenya have installed both fibre and wireless connectivity, but have noted that the bandwidth and hotspots are not sufficient. There is therefore in-adequate study within an academic library context reporting on any known knowledge on PGs perceptions towards the use of both formats. Lack of evidence of data on perceptions therefore points out a gap between what the library collects and what information resources PGs need. In fact, Wamalwa et al (2016) underscored the importance of investigating students' perceptions towards the use of print and EIRs so as to understand what influences the use of these resources in the way they do. In this regard, the researcher notes that university libraries in Africa and Kenya in particular, just like elsewhere in the world continue to acquire both print and electronic information resources without much evidence to indicate if both formats have the same appeal to PGs research and information needs. This needed to be investigated and therefore it formed the background on which this study was conducted at Mahatma Gandhi library which is mandated to provide support to PG research by availing a wide access of critical information resources.

1.1 Statement of the Problem

Information resources both in print and electronic formats have been identified as one of the yardsticks for measuring the library users' satisfaction of library services. On the other hand, satisfactory library services cannot be delivered without understanding user perceptions towards the use of these resources. The establishment of perceptions of Postgraduate students (PGs) towards the use of both formats within a Kenyan context is therefore critical to this study. Mahatma Gandhi library at UoN will be the contextual setting for this study. Its key mandate is to provide PGs with relevant and quality information resources that are in tandem with their ever-changing research needs. This is the only way they can derive maximum satisfaction and use of the resources availed to them. The main problem though is that existing research to-date has largely focused on perceptions towards the use of Electronic Information Resources (EIRs) by both general users and undergraduate students and yet, little or no known research has been conducted to intensively assess perceptions of PGs towards the use of both formats. This has therefore revealed a research gap that needs to be urgently filled. It is important to note that if such data is not available, there is a likelihood that the library may continue to acquire information resource formats that are never utilized by the students and university community. It would therefore be prudent that knowledge of the study variables be urgently established in order to help university librarians make informed decisions on acquiring and incorporating into the library collection only critical information resources that are demand driven. Failure to do so may lead to wastage of stringent library budgets thereby resulting in production of poor research works thus hindering quality of knowledge generated to inform information resources acquisition process and make positive contributions to Postgraduate research outcomes. This situation therefore spurred the need to conduct this study in order to find out answers to such questions. The study findings are expected to assist university managements, faculties, librarians and library users determine user perceptions so that libraries can plan for better and effective allocation of resources for the acquisition of both print and e-resource formats. Similarly, these findings are expected to assist players in the publishing industry to know the perceptions and preferences of their users and accommodate them accordingly.

1.2 Objective of the Study

The study sought to determine perceptions of postgraduate students on accessibility of print and electronic information resources at Mahatma Gandhi Library, University of Nairobi, Kenya.

2.0 Literature Review

2.1 Theoretical Literature Review

To realize its objective, this research study was anchored on Social Cognitive Theory (SCT) advanced by Albert Bandura in 1986. SCT explains human behavior in a three-way, dynamic and reciprocal model whereby personal, environmental influences and behavioral factors are continuously interacting. This theory has also been applied widely in other disciplines like Information science, health sciences, social policy and psychotherapy among others. Some of the notable themes in the field of Information Science are those studies related to information seeking behavior, use and knowledge sharing. For example, one such study that has deployed SCT is that one done by O'Brien et al., (2017). SCT is one of the most commonly used behavior change theories and therefore has an impact on the current study variables namely: comparison on the use, accessibility, relevance and preference leading to the choice of format between print and electronic information resources among PGs as its three basic tenets of person/cognitive features, environment, and behavior continuously interact in what is known as the triadic model of causation. According to the theory, Personal and environmental factors continuously interact to determine human behavior. This implies that a person's behavior is shaped by observing the people around them which tend to impact on their perceptions towards the same environment either positively or negatively.

In the context of the study, perceptions of PGs triggered by the environment produces the behavior which determines the use of either print or an electronic resource. Their capabilities or knowledge to access the print and e-resources, for example possession of computer and information literacy skills and, or ability to set and meet goals tend to shape their behavior either positively or negatively. The status of the library information resources in meeting the set goals, perceived outcomes or expectations in turn influences their decisions on whether these resources are relevant or not to their information needs. The satisfaction they derive or lack of it from using either print or e-resource determines the future use of the same resource. The implication here is that if PGs are more satisfied with print resources they are likely to consult them more pushing their demand high. The same applies to EIRs. Such a scenario allows a platform for comparison on the usage of either format. Perceptions of users therefore leads to choices thereby impacting on the extent to which an information resource format is used. All these brings to the fore the continuous interactions of the triadic system of personal, environmental and behavioural factors.

2.2 Empirical Literature Review

Getting in-depth knowledge allows PGs to conduct intense researches and, thus access to the right information resources is very significant to their studies. University Libraries are therefore called upon to put in measures that allow wide access to information that is critical in helping PGs define their research topics and fully carry out research activities. According to Nwachuku *et al.* (2014) accessibility refers to the level at which an information resource is easily made available to a wide range of users. The degree of any library's effectiveness is therefore measured by the availability, accessibility and usability of its information resources to its users. Notably, these attributes of library information resources are critical to provision of quality services especially in an academic library setting. However, as Nwachukwu *et al* (2014) cautions, it is possible that library information resources can be available and yet inaccessible

to users due to poor information organization technical processes like cataloguing, classifying, indexing, abstracting and so, its upon library managers to ensure that the resources are well organized for easy access and retrieval. The researcher concurs with the above observations because a well-organized collection allows easier accessibility of resources requiring the least of efforts by users.

It is important for university libraries to note that the choice to seek information depends to a large extent on its perceived accessibility. They should therefore ensure that both the services and resources they render to their users are in tandem with their information needs. As Oladije & Fabunmi, (2011) noted in their study, users' perception in regard to these resources and services are key to measuring a library performance in as far as accessibility of library resources is concerned. Their views therefore are critical to the current study as they resonate with those of the researcher. Kumar, Singh and Yadave (2011) further observed that sometimes it's not easy to access the right information due to its abundance and in many instances, users get overwhelmed such that they end up missing out on critical information that is suitable to their needs due to inability to know it's availability and where or how to access it. It is therefore prudent that, librarians endeavor to conveniently organize and avail the needed information to their users for easier access and use.

In the 21st century, new technology has made information to be accessed in different ways. In the past, postgraduate research in academic institutions was dominated by print formats as the main primary and relevant information sources. Today however, advance in Information Communication Technology (ICT) has transformed how research information is accessed, processed, packaged and disseminated to PGs. The researcher notes that the great desire to access information and knowledge faster and also the need to deliver scholarly information to academicians in real time has greatly impacted on the way users seek and use information. Anyim, (2019) concurs with these sentiments when he notes that the wave of change brought about by the dawn of digital technologies has transformed how information is organized, stored and accessed, thus affecting how users seek and use it. Todorinova & Wilkinson, (2019) echoes the same sentiments when they note that accessibility of e-resources has also transformed users' reading habits as this gives them the opportunity to make choices. Okorie (2018) further acknowledges that the accessibility and utilization of EIRs could positively affect students' academic performance because they are able to navigate the web with much ease when searching for information. In fact, this could be the reason why most university library users widely use library subscribed databases because they believe they are authoritative and accessible. As noted by Masese et al (2016) technological advancements have had a tremendous impact on the way information is gathered, processed, repackaged and finally disseminated for use. By embracing ICT in libraries, it has become possible to stock a wide variety of both print EIRs thereby making them to adopt new ways of information delivery and access. This implies that university libraries must strive to allow wide access of information resources by adopting modern ways of information acquisition, selection, storage, retrieval and dissemination. However, all the reviewed studies above have focused on emerging technologies in ICT and the advantages they have brought about to users who are now presented with new ways of seeking information. It is therefore evident that little has been said about students perception towards the use of print resources which are also widely availed in many university libraries. This has there therefore exposed the weak link of the empirical studies and has justified why it was critical to carry out this study.

Contrary to the above findings, Adigun, Zakari and Andrew (2010) did a survey on accessibility and usage of scholarly information sources by both faculty members and PGs of

Ahmadu Bello University. The findings showed that users found print sources more accessible and usable than electronic sources. This analysis showed that the use of print books and journals scored 76% and 75.4% respectively while e-books and e-journals scored 62% and 54% respectively for PGs thereby revealing that respondents made less use of electronic resources. These results led to the conclusion that PGs and faculty heavily used print information resources more than EIRs probably due to the fact that they were ill equipped with information search skills hence could not access e-resources easily. Probably too, user education and information literacy skills offered were inadequate to equip them with the right knowledge that would allow easy navigation of e-resources. The researcher however observes that these studies are not conclusive as advancement in technology has continued to influence information seeking behavior of PGs and therefore impacting on their perceptions towards accessibility of print and electronic resource formats and so, the results cannot be generalized. This therefore justifies the need to conduct the current study in order to establish perceptions of PGs on accessibility of information resources at Mahatma Gandhi library.

According to Ingutia-oyieke & Dick, (2013) study findings, factors hindering access to information in many university libraries are like: poor infrastructure networks like low band width leading to delays when accessing information, non-existent or in-adequate local language content and software; constant power failures, denied access to digital facilities; information overload, lack of information retrieval and computer search skills. Dafiagbor, (2012) also echoes the same sentiments when he opines that effective access and use of e-resources in university libraries was still hampered by many factors which include lack of good internet connectivity, inadequate internet infrastructure, lack of regular maintenance, unreliable power supply, high cost on acquisition and maintenance of the ICT infrastructure, and lack of adquate information retrieval skills for utilizing e-resources. Makokha & Mutisya, (2016) status report on e-learning in Kenyan public universities states that all public universities in Kenya have installed both fibre and wireless connectivity, but have noted with concern that bandwidth and hotspots are not sufficient. According to their findings this is largely attributed to high and prohibitive internet connectivity costs and poor internet signal to far off areas. The researcher tends to agree with the above findings that such factors hindering information resources access can influence students' perceptions negatively towards their usage. However, commenting on the advantages of e-resources, Binu (2020) insinuates that geographical location or finances could be some of the barriers restricting the user from accessing information. All the same he opines that the user has access to more current and relevant information sources that are extensively linked authoritative databases in the wake of ICT. Most of the studies on challenges or barriers to information access were limited to general library users in different technological environments but they resonate with the same challenges experienced locally as pointed out by Makokha & Mutisya, (2016). The current study also intended to find out if the above findings apply to PGs at Mahatma Gandhi library.

3.0 Research Methods

Descriptive research design was deemed appropriate as it is crucial to understand the dynamics of students' perceptions and practices of the use of print and EIRs in Mahatma Gandhi library. The contextual setting for the proposed study was Mahatma Gandhi Library at the UoN main campus. The library was considered as an ideal site because it's purposely set for PGs and the faculty members of the university majority of whom are in the SOB pursuing Business Administration programme. It provides a wide access to a variety of print and electronic information resources for postgraduate research for example in 2018, the library acquired 3832 print information resources and subscribed to about 250,000 electronic journals and books totaling to 253,832 library information resources. It also installed 11 wi-fi access points to

enhance access to electronic information resources (University of Nairobi Annual report, 2018).

The population of the study research was 3159 PGs enrolled in Business Administration program in the SOB, College of Humanities and Social Sciences (CHSS). This programme has the highest enrollment among the seven PG programmes currently offered in the school (University of Nairobi Annual report 2018). Non probability sampling techniques was applied in the study to identify a representative sample size for PGs enrolled in Business Administration program in the SOB at the UoN main campus. It was found appropriate for this study because it was not tenable to survey all PGs enrolled in the seven programs of the SOB. Convenience sampling was used to select the respondents. The study used questionnaires to collect data from PGs in Business Administration programme, SOB under the College of Humanities and Social sciences, UoN, Mahatma Gandhi library. The objective of the study yielded data that was largely qualitative. However, some data was quantitative. Therefore, data analyzed was both qualitative and quantitative. Qualitative data was analyzed by organizing, creating categories, and interpreting it. This data was presented using mainly text. Quantitative data was coded to facilitate analysis using SPSS version 23. Descriptive statistical methods of frequencies, percentages, pie charts, graphs and tables were used to present quantitative data.

4.0 Study Results

Study sought to determine perceptions regarding accessibility of both print and electronic information resources. This was considered important because accessibility of library resources allows students to gain in-depth knowledge which help them to fully carry out research activities. It's the duty of every library therefore to avail a wide range of both print and electronic information resources to its users for easier access. The results are indicated in Table 1.

Table 1: Accessibility of Print and Electronic Resources

Resource Type	Yes		No		Total
	Frequency	Percent	Frequency	Percent	
Printed textbooks	77	84	15	16	100%
Etextbooks	75	82	17	18.47	100%
PrintJournals	81	88	11	12	100%
Ejournal	85	92	7	7.6	100%
PrintTheses	78	85	14	15.22	100%
ETheses	86	93.47	6	7	100%
Printed Newspaper	75	81.52	17	18.5	100%
ENewspaper	64	69.6	28	30.4	100%

Source: Field research data (2021)

The results of 1 show that over 70% of respondents are able to access all the print information resources provided by Mahatma Gandhi library. This could be an indicator that the library is

well endowed with a variety of print resources. It could also mean that the library has put in place effective measures like proper shelf guiding to enable users browse easily on the shelves and that intensive user education is given on how to use retrieval tools like Online Public Access Catalogue (OPAC) that facilitate access. The findings also indicated there was dominance of print newspapers at 75% over the electronic versions at 64%. This significant difference could be due to their convenience of use, accessibility and comprehensive coverage of current news.

Similarly, the study findings on electronic resources towards books, journals and theses indicate that over 70% of respondents were able to access them with ease. These findings resonate with those of Okorie (2018) who opined that accessibility and utilization of electronic information resources could positively affect students' effectiveness and performance in their academic work hence the reason why most university library users patronize databases that they believe are authoritative and provides information that is up-to-date, universal in scope, and accessible. However, there was a drop on access of e-newspapers at 64% compared to print versions at 75%. This notable drop could mean that some users lacked the requisite technical skills to browse the internet. It could also mean that e-newspapers are not comprehensive in terms of coverage like the print as they normally provide fewer cues concerning important news and thus readers may end up acquiring less information about important topics thereby making them less appealing to read. Studies by Adigun, Zakari and Andrew (2010) on accessibility and usage of scholarly information sources by both faculty members and PGs of Ahmadu Bello University tend to contradict the current findings as they indicated that users found print resources more accessible and usable than electronic sources and therefore used them more. The analysis of the results showed that use of print books and journals scored 76% and 75.4% respectively while e-books and e-journals scored 62% and 54% respectively for PGs thereby revealing that respondents made less use of e-books and journals yet this is not the case with the current findings which show that apart from e-newspapers, ebooks, journals and theses were highly used by over 90% respondents. The authors concluded that PGs and faculty heavily used print information resources more than EIRs probably due to the fact that user education and information literacy skills offered were inadequate to equip them with the right knowledge that would allow easy navigation of e-resources yet, the current findings seem to point that intensive user education has facilitated wide access of both print and electronic formats. The researcher opines that these past studies are not conclusive as advancement in technology has continued to influence information seeking behavior of PGs and this could be having a bearing on their perceptions towards accessibility of print and electronic resource formats as it is clearly demonstrated by the current results that majority of respondents are able to access both formats with ease.

4.1 User services offered to Postgraduate Students

Further, the respondents were the asked to indicate the user services provided by the university library including; user education instruction, information searching skills and reference services. This was necessary in order to determine if the library services offered influenced in any way the perceptions of Pgs towards the use of print and electronic information resources. It was also important to find out if these services helped to equip the users with the requisite skills that were critical to information retrieval and access. The results are displayed below in Table 2.

Table 2 User services provided and their Frequencies

User services provided	Frequency	Percentage %	Total
User education	92	100	100
Information searching skills	52	57	100
Reference services	14	15.2	100

Source: Field research data (2021)

According to the data in table 2, all the respondents (100%) cited that user education was the most common user service provided followed by the information searching skills which was over 50%. This is a demonstration that the impact of user education provided to Postgraduate students at Mahatma Gandhi library UoN Kenya is very high. Of great concern though was the low number of respondents (15.2%) who indicated that they made use of reference services. This can be interpreted to mean that not many users make use of reference librarians probably due to the success of the user education provided. However, it could also mean that users did not feel comfortable consulting reference librarians who were probably not very responsive to their needs.

4.2 Ability to search and locate information resources in the library

The respondents were further asked to indicate if they were able to search and locate all the information resources available in the library. This was necessary in order to assess the effectiveness of user education services in as far as searching and locating library information resources was concerned. The results are as displayed below in Table 3.

Table 3 Searching and Locating Library Information Resources

Response	Frequency	Percentage %
Yes	82	89.1
No	10	11
Total	92	100

Source: Field research data (2021)

Table 3 Indicate that the impact of user services such as user education contributed to a high response rate of over 80% as respondents were able to search and locate library information resources with ease. However, a few respondents with a response rate of 11% indicated that they experienced difficulties in searching probably due to lack of technical skills. The above data resonates with Masese *et al* (2016) who observed that technological advancements have had a tremendous impact on the way information is gathered, processed, repackaged and finally disseminated for use and that by embracing ICT in libraries, it has become possible to stock a wide variety of both print and EIRs thereby making them to adopt new ways of information delivery and access. This implies that university libraries must strive to allow wide access of information resources by adopting modern ways of information acquisition, selection, storage, retrieval and dissemination.

4.3 Challenges of Access to University Library Information Resources

Despite the high rate of access, the respondents were asked to indicate the challenges they faced when accessing library information resources among the following choices: Slow internet, Unfriendly user interface, power outages, difficulties in locating print books on the shelves, lack of guidance from librarians on accessing e-books and e-journals and lastly, ability to access all print and electronic information resources. This was important in order to determine if the common barriers that had been cited in earlier studies were also being experienced by respondents at Mahatma Gandhi library. The results are displayed below in Table 4.

Table 4 Challenges of Accessibility of Print and Electronic Resources

Challenges	Yes		No		Total
	Frequency	Percent	Frequency	Percent	
Slow Internet	36	39	56	61	100%
Unfriendly User Interface	20	21.7	72	78.3	100
Power outages	18	19.6	74	80.4	100%
Difficult in locating printed resources	32	34.8	60	65.2	100%
Can Access all Library Resources	82	89.1	10	10.9	100%

Source: Field research data (2021)

According to Table 4, most significant observation is that despite the success in ability to access all library resources which was over 80%, the respondents still cited challenges of slow internet, unfriendly user interfaces and power outages at a response rate of 36%, 20% and 18% respectively when locating e-resources. Apparently therefore, slow internet was the major challenge to accessing e-resources. This could be attributed to low band width triggered by the high number of users at any one time. On the other hand, location of print information resources was a common challenge that affected access to print materials and this could be associated with the library layout and guiding which some users probably were not conversant with. The study findings of Ingutia-oyieke & Dick, (2013) on factors hindering access to information in many university libraries by general users are in tandem with those of the current study as they found that poor infrastructure networks, like low band width leading to long delays when trying to access information and constant power failures denied access to ICT facilities. Also, Dafiagbor (2012) noted that many factors still hindered effective access and use of electronic resources in academic libraries which included lack of internet connectivity, inadequate facilities, lack of maintenance culture, inadequate power supply, acquisition cost, maintenance cost, and lack of information retrieval skills for utilizing electronic resources. It is worth noting that though these studies were conducted on general users in different geographical areas, the findings concur with those of Makokha & Mutisya (2016) report on the status of e-learning in public universities in Kenya which pointed out that bandwidth and hotspots are not sufficient thus posing challenges to information access. This therefore is a clear indication that challenges of information access and especially so e-resources cut across university libraries worldwide.

4.4 Perceptions on the Future of Print and Electronic Information Resources

It was important to capture the views of respondents concerning the future of both formats. This was because many university libraries have as many e-resources as print resources and therefore knowing how users felt about them would give proper guidance on acquisitions work. Based on age demographics, the respondents were therefore asked to show their agreement or lack of it in reference to the following statements concerning the future of print and EIRS using a Yes or No response: Print resources will continue to co-exist with electronic resources, electronic resources will continue to supplement print resources, and Electronic resources will eventually replace print resources. Their responses are displayed below in Figure 1.

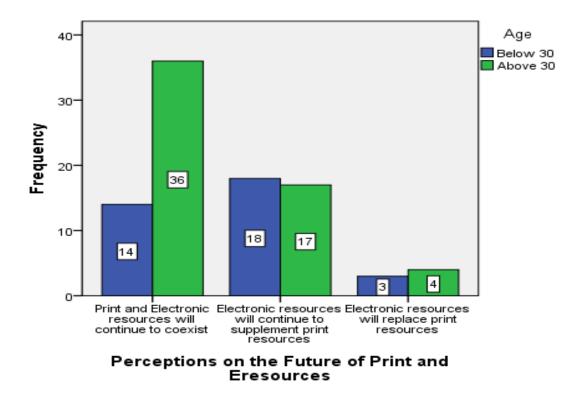


Figure 1: Perceptions About the Future of Print and Electronic Information Resources.

Source: Field Research data (2021)

According to figure 1, about 50% of respondents across age cited that both information formats will continue to coexist. This clearly demonstrated that majority of respondents found both formats useful to their studies depending on their information needs.

5.0 Conclusions and Recommendations

5.1 Conclusions

The study sought to establish perceptions of PGs towards accessibility of print and electronic resources. The findings indicated that majority of the respondents were able to access all the print information resources provided by Mahatma Gandhi library. This could be an indicator that the library has a rich collection of print information resources and that effective measures like proper shelf guiding to enable users browse easily on the shelves has been put in place. It was also a pointer that intensive user education was given on how to use retrieval tools like Online Public Access Catalogue (OPAC) that facilitate access. Similarly, the study findings on electronic resources towards books, journals and theses further indicated that most of the respondents were able to access them easily. However, a notable difference was the drop on

access of e-newspapers compared to print versions. This notable drop could mean that some users lacked the requisite technical skills to browse the internet. It could further imply that e-newspapers are not comprehensive in terms of coverage like the print as they could be limited to breaking news and headlines only thus making them less appealing to read.

The study concluded that the studied library was well endowed with a variety of print resources and e-resources. Further, effective measures like proper shelf guiding and intensive user education is given on how to use retrieval tools like Online Public Access Catalogue that facilitated access to resources. Print newspapers dominated their electronic counterparts because they were convenient to use, easily accessible and comprehensive in terms of coverage. It was further concluded that technical challenges of accessing e-resources affected usage leading to a high preference in the use of print newspapers.

From the findings it was further concluded that user education was the most common user service provided by the library followed by information searching skills. This was a clear demonstration that library user education led to high ability to locate and search information with ease among PGs. The ability to access all library resources by majority of respondents, slow internet, unfriendly user interfaces and power outages were major challenge to accessing e-resources. This could be attributed to low band width triggered by the high number of users at any one time. It was further concluded that location of print information resources was a common challenge that affected access to print materials probably because some users were not conversant with the library layout and guiding.

5.2 Recommendations

The study found that majority of students were able to access both formats with ease with the exception of e-newspapers which had a lower score. To this end, it is recommended that the university continues to upscale internet and WI- FI access across campus in order to increase the bandwidth which will allow wider access to EIRs. Where students encounter technical challenges like accessing e-newspapers, slow internet, unfriendly user interface and power outages, it is recommended that library staff need to be engaging with students so that they can identify those technical issues that hinder full access of all the library resources with the aim of putting measures in place to address them. Concerning the services offered by the library, the study found that user education was the most common service offered compared to information literacy and reference services.

References

- Adigun, G. O., Zakari, M. and Tamboge, A., (2010). Accessibility and usage of scholarly information sources by faculty members and postgraduate students of Ahmedu Bello University, Zaria. *The Information Manager*, 10 (1and 2): 1-8
- Akpojotor, L.O (2016). Awareness and usage of electronic information resources among Postgraduate students of library and information science in southern Nigeria. Library Philosophy and Practice Retrieved from: http://digitalcommons.unl.edu/libphilprac/1408
- Annand, D. (2008). Learning efficacy and cost-effectiveness of print versus e-book instructional material in an introductory financial accounting course. *Journal of Interactive Online Learning*, 7(2), 152-164.
- Anyim, W. O. (2019). Electronic Information Resources for Learning and Research Activities among Undergraduate Students in the University Library. *Journal of Computer Science and Technology Studies*, *I*(1), 28–35. Retrieved from https://al-kindipublisher.com/index.php/jcsts/article/view/431

- Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice Hall.
- Binu, P. C. (2020). Outlook Change from Print to E- Resources: A Study of the Uses and Advantages of E-Resources on Print in the State Universities in Kerala, India. 18 In Measuring and Implementing Altmetrics in Library and Information Science Research (pp. 111-131). IGI Global
- Cassidy, E. D., Martinez, M., & Shen, L. (2012). Not in love, or not in the know? Graduate student and faculty use (and non-use) of e-books. *The Journal of Academic Librarianship*, 38(6), 326–332.
- Idiegbeyan-Ose, *et al* (2019). E-resources vs print usages and preferences by undergraduates in private university. *DESIDOC Journal of Library and Information Technology*. vol.39, 2, 33-44.
- International Federation of library associations and institutions (2012). Key issues for eresource collection. http://www.ifla.org/files/acquisitioncollectiondevelopment/publications/key issues
- Katabalwa, A. S. (2016). Use of electronic journal resources by postgraduate students at the University of Dar es Salaam. *Library Review*.
- Kumar, R. (2011). *Research methodology: a step by step guide for beginners*. 3rd ed. London: Sage.
- Kumar, S. (2016). User satisfaction and service quality of the university libraries in Kerala. *International Journal of Information Dissemination and Technology*, *3*(1),ijidt.com/index.php/ijidt/article/download/50/50. [18 February 2020].
- Makokha & Mutisya.D. (2016). Status of E-Learning in Public Universities in Kenya. *International Review of Research in Open and Distributed Learning*, 17(3)
- Masese JM, George BO, Makwae EN, Moenga EN (2016). Strategies to Enhance Access and Use of E-Resources by Postgraduate Students in Selected University Libraries in Kisii County, Kenya. *International Journal of Academic Library and Information Science*, 4(8): 203-207.
- Muir, L. & Hawes, G. (2013). The case for e-book literacy: Undergraduate students' experience with e-books for course work. *The Journal of Academic Librarianship* (Articles in press). Available at: dx.doi.org/10.1016/j.acalib/2019.01.002
- Nicholas, D., Rowlands, I., Clark, D., Huntington, P., Jamali, H. R., & Olle, C. (2008). UK scholarly e-book usage: A landmark survey. *Aslib Proceedings: New Information Perspectives*, 60(4), 311-334.
- Nwachuku *et al* (2014) Nwachukwu, Abdulsalami, Lucky. (2014). Availability, Accessibility and Use of Information Resource. *Journal of Information and Knowledge Management*, 4-10
- O'Brien, H, Dickinson R and Askin N (2017) A scoping review of individual differences in information seeking behavior and retrieval research between 2000 and 2015. Library and information Science Research39 244-254. http://dx.doi.org/10.1016/j.lisr.2017.07.007

- Okorie, J., (2018). Influence of electronic information resources utilization on academic performance of HND students in Federal Polytechnic, Nekede, Owerri (2018). Libraryphilosophyandpractice(e-journal).1950. http://digitalcommons.unl.edu/libphilprac/1950
- Posigha, B.,, Etebu, A., & Vera, Z., (2018). The Importance of Effective Interpersonal Communication in Reference Interview in Academic Libraries in Nigeria. *MiddleBelt Journal of Library and Information Science* 16, 20-34
- Rowlands I., Nicholas D., Williams P., Huntington P., Fieldhouse M., Gunter B., Withey R. Jamali H. R., Dobrowolski T. & Tenopir C. (2008). The Google Generation: The Information Behavior of the Researcher of the Future. *Aslib Proceedings*, Vol. 60, No. 4, 290-310
- Szapkiw, A. J. R., Courduff, J. C., Carter, K., & Bennett, D. (2013). Electronic versus traditional print textbooks: A comparison study on the influence of university students' learning. *Computers & Education*, 6,33-45.
- Todorinova, L. & Wilkinson, Z. T. (2019). Closing the loop: Students, academic libraries, and textbook affordability. *The Journal of Academic Librarianship*, 45(3), 268-277
- University of Nairobi (2018). Annual report 2018. Nairobi: UON.
- Verminski, A., & Blanchat, K. M. (2017). Fundamentals of electronic resources management. American Library Association.
- Wamalwa *et al* (2016). Knowledge management practices and performance of academic libraries: a case of Mount Kenya University, Kigali campus Library. *World Journal of Computer Application and Technology*, 4(2):34-39.
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