
Usage of Online Public Access Catalogue (OPAC) by undergraduate students at Sokoine University of Agriculture

Anajoyce Samuel Katabalwa,
Sokoine University of Agriculture
Email: joykatabalwa@sua.ac.tz

Ester Ernest Mnzava
Sokoine University of Agriculture,
Email: esternst@sua.ac.tz

Abstract

This study aims to examine the usage of Online Public Access Catalogue (OPAC) by undergraduate students at Sokoine University of Agriculture (SUA). Specifically the study aimed to determine whether the undergraduate students were aware of OPAC at Sokoine National Agricultural Library (SNAL), to examine the access to OPAC by undergraduate students at SNAL, to examine the usage of OPAC by undergraduate students at SNAL and to identify the challenges encountered by undergraduate students in the usage of OPAC at SNAL. The study involved 100 purposively selected Bachelor of Information and Records Management (BIRM) students. This cross-sectional study basically used self-administered questionnaires as data collection method. The data were analysed with the aid of the Statistical Package for Social Sciences (SPSS). Findings of the study revealed that majority of respondents were aware of OPAC. The respondents used OPAC for various reasons including knowing the library materials available in the collection for a short time, locating library materials, and knowing the status of books – if they are available or on loan. OPAC are accessed from various points including in Library, Hostels, and study tables and seats made of cement locally known as *vimbweta*. Various ICT devices such as computers in the library, smartphones and laptops are used to access OPAC. However, some challenges such as lack of basic ICT skills, lack of training, power outage were found to be hindering the usage of OPAC. The study recommends provision of training to increase skills, increase marketing strategy and purchase of a heavy-duty automatic generator to solve the power outage challenge.

Keywords: OPAC, SNAL, OPAC usage, undergraduate students, Sokoine University of Agriculture

Introduction

The introduction of Information and Communication Technologies (ICTs) has impacted the information environment and its users. Online Public Access Catalogue (OPAC) is one of these technologies which has changed the way in which libraries and information centres serve their users as well as how users access and retrieve information resources (Swaminathan, 2017). This has been made possible due to Internet connection and automation of library services and

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operation using an integrated library management system (Nahfees & Azwer, 2018). OPAC is an information retrieval system characterised by short bibliographic records of information materials such as books, journals, and audio-visual materials available in a particular library (Kumar & Singh, 2017). Nahfees and Azwer (2018) define OPAC as an online bibliography of library collections such as AV materials, books, electronic materials, and journals that are available and accessible to the public in the world.

Since its inception in 1970s, OPAC has been widely used to improve information provision in libraries (Feather & Sturges, 2003). According to Msagati (2016), OPAC facilitates access to information resources available in a particular library, enables communication, and thus increases morale and motivation of library staff and consequently productivity of individual library staff and the library at large. OPAC provides features that allow registration of the library users, searching, accessing, reserving and renewing of information materials as well as requesting information materials from another library through inter-library loan service (Swaminathan, 2017; Rout & Panigrahi, 2018). It allows multidimensional searches access point such as title, author, keywords and subject (Rout & Panigrahi, 2018; Shivakumaraswamy & Narendra, 2016). Thus, many academic libraries including Sokoine National Agricultural Library (SNAL) in Tanzania have implemented and use it to support the provision of information resources.

SNAL is a library at the Sokoine University of Agriculture (SUA) which plays two functions: it serves as a university library (providing services to students, staff and researchers) and as a national library. As a university library, SNAL's role is to support the vision of SUA of being the 'leading university in provision of quality knowledge and skills in agriculture and allied sciences' (SUA, 2020) and to support core activities of teaching, learning, research, consultancy and outreach services. In order to fulfil this role and provide effective and efficient services, SNAL automated its collection using ABCD library automation software. This has enabled availability of OPAC to support access of information resources available in SNAL's collection. There are special computers positioned at different points in the library to enable users' access to OPAC. Besides, SNAL has a computer laboratory with a number of computers which can also be used to access OPAC. Furthermore, OPAC is linked (web-based) to SNAL website to enable users who visit the website to access OPAC. Having a web-based OPAC supports access to OPAC anytime and anywhere outside the library (Fabunmi & Asubiojo, 2013; Srirahayu & Anugrah, 2019).

OPAC has been important as it helps to know the information resources available in the library collection, helps in locating the books, and knowing the status of books - if they are available or have been borrowed (Aju & Foti, 2020; Lalnunpuii, Nurtinkhuma & Verma 2018; Mahadevan & Kumar, 2019; Nahfees & Azwer, 2018; Narayanaswamy, 2019). Nevertheless, usage of OPAC in some countries has been challenged by various factors including low awareness of users, lack of skills and knowledge on how to use it, network failure, and inadequate computers (Bansal & Kumar, 2017; Msagati, 2016; Rout & Panigrahi, 2018; Swaminathan, 2017).

Various studies (Aju & Foti, 2020; Bello & Bakrin, 2020; Cabonero, Austria, Bayang & Bumanghat, 2020; Eserada & Okolo, 2019; Fabunmi & Asubiojo, 2013; Gana, Ajibili & Abel 2019; Ferdinand, 2020; Msagati, 2016) within and outside Tanzania have been conducted regarding the usage of OPAC. However, little was known on the usage of OPAC by undergraduate students at Sokoine University of Agriculture. It is this context which created the need to undertake this study to fill this gap. The main objective of this study was to examine the usage of OPAC by undergraduate students at the Sokoine University of Agriculture. Specifically,

the study intended to: Determine whether the undergraduate students are aware of OPAC at SNAL; examine the access to OPAC by undergraduate students at SNAL; examine the use of OPAC by undergraduate students at SNAL; identify the challenges encountered by undergraduate students in the usage of OPAC at SNAL. The study will make a significant contribution in the usage of OPAC by highlighting importance of using OPAC in libraries. It will further help responsible librarians to know the available challenges and suggest best ways that will help improve the usage of OPAC. The study is among few studies that contribute to the knowledge about the usage of OPAC in Tanzania.

Literature review

Several studies have been conducted in Tanzania and elsewhere concerning the usage of OPAC in libraries (Samzugui and Mwinyimbegu, 2013; Msagati, 2016; Swaminathan, 2017; Rout and Panigrahi, 2018). In this study, only a few studies which are relevant were selected and used. Thus, this section discusses various literatures concerning awareness of OPAC; access to OPAC; use of OPAC; and the challenges faced by users when using OPAC.

Awareness of OPAC

Awareness of OPAC is regarded as important when it comes to the usage of OPAC in libraries. Ferdinand (2020) highlights that, there is a significant relationship between awareness and usage of OPAC and that the more the awareness of OPAC the more the increase in its usage. According to Msagati (2016), awareness of OPAC among library users has implication in effective usage of library information resources. This is also supported by Swaminathan (2017) who asserts that users of library can effectively utilise information resources if they are fully aware of OPAC and its facilities. In support of this, the study conducted by Yusuf (2012) reported that the majority of students were aware of OPAC, and hence they used OPAC to satisfy their information need. Likewise, the study conducted by Kaur and Kathuria (2015) and Emiri (2019) reported high awareness of the web OPAC utility among students which contributed to its usage.

On the other hand, low usage of OPAC by several library users at different institutions has been contributed by low level of its awareness. The study by Ferdinand (2020) reports that, there were low extent of awareness in Federal Universities in South West Nigeria which contributed to its low usage. Gana et al. (2019) reported that majority of respondents at Bingham University Library were not aware about OPAC and thus only few respondents used OPAC. Likewise, the study by Msagati (2016) found that, low usage of OPAC by distance learners of the Open University of Tanzania (OUT) was contributed by low awareness of OPAC.

Access to OPAC

The development in technology has enabled access to OPAC anytime and anywhere without forcing users to come to the library physically. Srirahayu and Anugrah, (2019) argues that users only need their gadgets to access OPAC without coming in the library. Singh and Kumar, (2019) adds that, through OPAC library users are able to virtually access the library collection anytime and anywhere. Different ICT devices such as computers, smartphones and laptops are being used

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in support of access to OPAC at anytime and anywhere (Nahfees& Azwer, 2018).Additionally, Liang andWu (2018)argues that, users use computers, iPad and smartphones to access information anytime and anywhere using OPAC. Despite its flexibility using different ICT devices, majority of library users prefer access to OPAC using computers within the library premises (Fabunmi & Asubiojo, 2013;Mchunguzi, 2017;Nahfees & Azwer, 2018;Singh & Kumar, 2019).Few library users prefer using smartphones in accessingto OPAC(Liang & Wu, 2018;Kapat, 2021).

Use of OPAC

Many libraries have invested much in integrating the OPAC system into libraries because it has proved its usefulness in supporting and improving the quality of provision of information resources. Majority of users have regarded OPAC as significant and have been using it (Lalnunpuii et al., 2018;Singh & Kumar, 2019;Swaminathan, 2019;Vijayakumar & Manasa, 2018). Users such as students, researchers and faculty members use OPAC for various purposes.The most important purposes of using OPAC include knowing the information materials availablein the libraryincluding books, journals and other reading materials;locating the books on the shelves, and knowing the status of books - if they are available or not (Aju & Foti, 2020; Lalnunpuii et al., 2018; Mahadevan & Kumar, 2019; Nahfees & Azwer, 2018; Narayanaswamy, 2019;Swaminathan, 2019; Wema, 2018).

Other purposes of using OPAC are such as to borrow materials and to auto-renew books in possession of users (Ferdinand, 2020); to reserve the book which is borrowed by someone (Narayanaswamy, 2019; Uplaonkar, 2020); to know the new arrivals (Swaminathan, 2019; Uplaonkar, 2020); to check own issues or return history (Uplaonkar, 2020); and to check the number of copies of the required books in the stock (Vijayakumar & Manasa, 2018). OPAC also helps to compile bibliographies of books on particular subjects, search for bibliographic details, and search for information resources (Eserada & Okolo, 2019; Kaur & Kathuria, 2015; Rout & Panigrahi, 2018; Swaminathan, 2017).

Challenges encountered in using OPAC

Usage of OPAC in libraries is hampered by various challenges including lack of awareness as reported by various studies. The study conducted byBamidele, Omeluzor, Onoyeyan, and Titilayo(2014)reports low awareness among the majority of faculty members at Babcock University, Nigeria. Another study byMsagati (2016) revealed that the majority of distance learners have low awareness of OPAC at OUT. Similarly, lack of awareness is also revealed in the studies conducted by Swaminathan (2017)as well asRout and Panigrahi, (2018).Regarding lack of awareness, Msagati (2016)recommends that several mechanisms can be used to raise users' awareness including the use of websites, newsletters, and mailing lists to provide basic instructions on how to use OPAC. Gana et al. (2019) adds that the use of orientation and sensitisation programme is one of the good measures for creating awareness and encouraging the usage of OPAC.

Another challenge hindering smooth usage of OPAC is lack of knowledge and skills on how to use it(Fabunmi & Asubiojo, 2013; Kaur & Kathuria, 2015; Swaminathan, 2017; Rout & Panigrahi, 2018; Eserada & Okolo, 2019; Kasimani & Rajendran, 2019). This challenge is related to the role of the library as an information service provider. In order to overcome this

library, staff need proper training to help them gain knowledge that will help them train users on the same (Kaur & Kathuria, 2015). Also, Rout and Panigrahi (2018) insist display of instructions by libraries on how to use OPAC close to the places where computer terminals are placed.

Conclusively, other challenges that have been reported by various studies include inadequate power supply (Emiri, 2019; Eserada & Okolo, 2019; Msagati, 2016; Wema, 2018), inadequate computer terminals (Emiri, 2019; Eserada & Okolo, 2019; Kasimani & Rajendran, 2019; Msagati, 2016; Wema, 2018), lack of guidance from the software or assistance from library staff (Eserada & Okolo, 2019; Kasimani & Rajendran, 2019; Rout & Panigrahi, 2018; Swaminathan, 2017; Wema, 2018), inadequate network (Emiri, 2019; Kasimani & Rajendran, 2019; Msagati, 2016), and lack of awareness (Eserada & Okolo, 2019; Fabunmi & Asubiojo, 2013; Kasimani & Rajendran, 2019; Kaur & Kathuria, 2015; Swaminathan, 2017).

Methodology

The cross-sectional research design was used in this study because it allows data collection from a population at one specific point of time (Gray, 2009; Guthrie, 2010) and quantitative method approach was used. Quantitative method was used to collect data using questions which were required to collect quantifiable answers. The study was conducted at the Sokoine University of Agriculture whereby the Sokoine National Agricultural Library (SNAL) which is an academic library of the university uses OPAC to support effective access of information materials from the collection.

The study involved the undergraduate students pursuing Bachelor of Information and Records Management (BIRM), class of 2017/2018 as a population for this study. This population was chosen because they have some courses in their programme which are related to the access and use of information resources in the library, and also they are among the undergraduate programmes that received orientation on how to use the library resources and other services. Therefore, the population was considered suitable for this study with the assumption that they had knowledge on various information retrieval systems available at SNAL.

Non-probability sampling particularly purposive sampling was used to select only undergraduate students studying BIRM class of 2017/2018 as they were regarded to have the knowledge required to enable them participate in the study. A total of 100 BIRM students participated in the study.

The study used self-administered questionnaires with closed-ended and open-ended questions as the main tool for data collection. BIRM class of 2017/2018 had 104 students and questionnaires were distributed to all students. However, only 100 duly-filled questionnaires were returned. The questionnaires had questions distributed in the following sub-themes: demographic information, awareness of OPAC, access to OPAC, use of OPAC, and challenges encountered when using OPAC. The study used the Statistical Package for Social Sciences (SPSS) software to analyse the collected data. Data were summarised and organised to answer the research questions whereby descriptive frequencies and tables were used to present and discuss the findings. Ethical issues were considered whereby the researchers obtained the research clearance from SUA which introduced the researchers to the respondents. Also, researchers observed all ethical issues such as ensuring voluntarily participation of respondents, confidentiality of provided information and norms in analysing and reporting the findings.

Study results

Demographic information

One hundred (100) undergraduate students participated in the study. Among them, males were 62 (62%) and females were 38 (38%). The findings show that the majority of the respondents were aged between 21 to 30 years as indicated by 91 (91%) respondents and only 9 (9%) respondents were aged between 31 to 40 years as shown in Table 1. All the respondents who participated in the study were pursuing Bachelor of Information and Records Management (BIRM) as hinted earlier.

Table 1: Demographic information

Variable(n = 100)	Category	Frequency	Percent
Sex	Male	62	62
	Female	38	38
Age group	21-30	91	91
	31-40	9	9
Programme	BIRM	100	100

Source: Field Data (2018)

Awareness of using OPAC

The respondents were asked to indicate their awareness of OPAC. The results show that 93 (93%) respondents were aware of OPAC while 7 (7%) respondents were not aware (these seven respondents were excluded from other questions) as shown in Table 2.

Table 2: Awareness of OPAC

Variable (n = 100)	Category	Frequency	Percent
Awareness of OPAC	Aware	93	93
	Not aware	7	7

Source: Field Data (2018)

The findings further reveal that the respondents became aware through the library website reported by 56 (60.2%) respondents, library orientation reported by 28 (30.1%) respondents, friends reported by 12 (12.9%) respondents, and 6 (6.5%) respondents indicated that they were informed by the librarians as indicated in Table 3.

Table 3: Sources of awareness of OPAC

Variable (n = 93)	Category	Frequency	Percent
Sources of awareness of OPAC	Through the library website	56	60.2
	Through the library orientation programme	28	30.1
	Informed by a friend	12	12.9
	Informed by a librarian	6	6.5

Note: Respondents provided multiple responses.

Source: Field Data (2018)



Access point to OPAC

Respondents were asked to state the point where they used to access OPAC. Respondents identified different places. The majority i.e. 87(93.7%) respondents said they accessed to OPAC in the library; 9(9.7%) respondents said they accessed to OPAC when they are in the hostels; while 9(9.7%) respondents said they accessed to OPAC at *Kimweta* as shown in Table 4.

Table 4: Access point of OPAC

Variable (n = 93)	Category	Frequency	Percent
The access point of OPAC	Library	87	93.5
	Hostels	9	9.7
	<i>Kimweta</i>	9	9.7

Note: Respondents provided multiple responses.

Source: Field Data (2018)

Devices used for access to OPAC

The researchers wanted to know further the devices that are frequently used by respondents to access OPAC. More than half of the respondents i.e. 55(59.1%) respondents nominated computers in the library; smartphones were indicated by 36(38.7%) respondents; laptops were indicated by 14(15.1%) respondents; whereas 7(7.5%) respondents indicated that they were using tablets as shown in Table 5.

Table 5: Devices used to access OPAC

Variable(n = 93)	Category	Frequency	Percent
Devices used to access OPAC	Computers in the library	55	59.1
	Smartphones	36	38.7
	Laptops	14	15.1
	Tablets	7	7.5

Note: Respondents provided multiple responses

Source: Field Data (2018)

Furthermore, respondents were asked to indicate if they had received any training on how to access OPAC. Thirty six (38.7%) respondents agreed to have received training on how to access OPAC during orientation sessions, 22 (23.7%) respondents said they had received information literacy training, and 16 (17.2%) respondents said they had received one-to-one training assisted by a librarian as shown in Table 6.

Table 6: Training received on using OPAC

Variable(n = 93)	Category	Frequency	Percent
Training received	Trained during orientation	36	38.7
	Information literacy training	22	23.7
	One-to-one training assisted by a librarian	16	17.2

Note: Respondents provided multiple responses

Source: Field Data (2018)

Usage of OPAC

The respondents were again asked if they used OPAC, 85 (91.4%) respondents said they used OPAC while 8 (8.6%) respondents said they did not use OPAC as shown in Table 7. These 8 respondents, who did not use OPAC, were instructed to leave other questions, and instead answer the last question which inquired challenges hindering the usage of OPAC.

Table 7: Usage of OPAC

Variable(n = 93)	Category	Frequency	Percent
Use of OPAC	Use	85	91.4
	Not use	8	8.6

Source: Field Data (2018)

The respondents were also asked to indicate reasons for using OPAC. This question was answered by only those who said they used it. Sixty six (77.6%) respondents said they used OPAC to know library materials available in the collection for a short time, 23(27.1%) respondents said they used it to locate books on shelves by using the call numbers and 18(21.2%) respondents said they used it to check the status of books. Table 8 shows various reasons for using OPAC among undergraduate students:

Table 8: Reasons for using OPAC

Variable(n = 85)	Category	Frequency	Percent
Reasons for using OPAC	To know the library materials available in the collection for a short time	66	77.6
	To locate materials on shelves by using the call number	23	27.1
	OPAC shows if the books are available or not	18	21.2

Note: Respondents provided multiple responses.

Source: Field Data (2018)

Another question was asked to indicate the frequency of OPAC usage. Thirty eight (44.7%) respondents said that they used OPAC weekly followed by 24 (28.2%) respondents who said they used it monthly. Eighteen (21.2%) respondents said they used it daily, and 5 (5.9%) respondents said they used it yearly as shown in Table 9:

Table 9: Frequency of use of OPAC

Variable(n = 85)	Category	Frequency	Percent
Frequency of usage of OPAC	Daily	18	21.2
	Weekly	38	44.7
	Monthly	24	28.2



Note: Respondents provided multiple responses.

Source: Field Data (2018)

Challenges in using OPAC

Additionally, the respondents were asked to mention challenges associated with the use of OPAC at Sokoine University of Agriculture. This question was answered by all the respondents who were aware of OPAC. The findings revealed that library users encountered different challenges such as lack of skills reported by 46 (49.5%) respondents, power outages reported by 36 (38.7%) respondents, fear to use OPAC reported by 14 (15.1%) respondents and network problem reported by 14 (15.1%) respondents. Table 11 presents various challenges faced by library users when using OPAC.

Table 10: Challenges faced by library users when using OPAC

Variable(n= 93)	Category	Frequency	Percent
Challenges in using OPAC	Lack of ICT skills	46	49.5
	Fear to use OPAC	14	15.1
	Power outage	36	38.7
	Network problem	14	15.1

Note: Respondents could provide multiple responses.

Source: Field Data (2018)

Discussion

The study reveals that for the students who participated in the study, male group outnumbered female counterparts. Also, the study reveals that majority (91%) of undergraduate students who participated in the study were aged between 21 to 30 years; while few (9%) respondents were aged between 31 to 40 years. This might have been due to the fact that most of the undergraduate students are very young, fresh from high schools and few of them come from offices.

The study also reveals that majority (93%) of respondents who participated in the study were aware of OPAC while very few were not aware of it. These findings is in linewith Song, Buba, and Song's (2018) who found that the majority of undergraduate students in Federal University Libraries in northern Nigeria were aware of OPAC. Also, the study by Bello and Bakrin (2020) found that there is high level of awareness of OPAC among library users of at Fountain University, Osogbo, Nigeria. Other studies who found high level of awareness include the study by Aju and Foti (2020), Kumar (2019), Lalnunpuii et al. (2018), Narayanaswamy (2019), Rout and Panigrahi (2018) and Saha (2017). However, the findings contradict the study by Umar, Abareh and Basaka (2017) who found that the majority of undergraduate students at Abubakar Tafawa Balewa University (ATBU) Bauchi, Nigeria were not aware of OPAC. Also, the *Usage of Online Public Access Catalogue (OPAC) by undergraduate students at Sokoine University of Agriculture*

study by Fabunmi and Asubiojo (2013) and Ferdinand (2020) found that majority of users were not aware of OPAC. Awareness of OPAC by BIRM undergraduate students at SUA might have been contributed by the fact that the group had received various training related to access and usage of library information resources and had some courses in their programme related to the use of library. However, very few (7%) respondents were not aware of OPAC. This might be because probably they missed the training on the same or had lack of interest. This findings are somewhat in line with those by Lalnunpui et al. (2018) who found that only 5% of respondents were not aware of OPAC and hence never used it due to lack of awareness and technical knowledge.

Regarding sources of awareness of OPAC, the study reveals that respondents became aware of the existence of OPAC at SNAL through various ways. Large number (60.2%) of respondents who participated in the study became aware of OPAC through the website. This is because various services and links for databases have been listed on SNAL website to enable users who visit the website to easily access various services offered by the library. The findings contracts Dukku and Temboge's (2019) study which reported that library website was significantly low in creating awareness of library catalogues. Furthermore, the findings show that library orientation which is given to the newly admitted students upon their arrival at the university is important in introducing various library services including OPAC. Information through friends and librarians about OPAC is another way which helped the respondents to become aware of it.

On access point to OPAC, the findings indicate that most undergraduate students preferred coming to the library to access OPAC. This supports the study by Fabunmi and Asubiojo's (2013); Nahfees and Azwer's (2018); and Singh and Kumar, (2019) who found that many students accessed OPAC within the library premises. Also, Mchunguzi (2017) found that users of the University of Arusha library accessed OPAC within library premises. Using library premises to access OPAC at SUA is due to the reason that the library has computers that are readily available for free for users to access and are connected to the Internet to enable users to locate needed information resources.

Accordingly, the findings show few (9.7%) respondents were accessing to OPAC when they were in hostels. Students probably were using their smartphones or laptops to access to OPAC so that when they came to the library, they could go directly to the shelves to locate the information materials. This supports Fabunmi and Asubiojo's (2013) study which found that only 2.5% of undergraduate students at Obafemi Awolowo University accessed to OPAC from hostels. Even though hostels at SUA are connected with free WIFI to enable students to access various electronic information resources as well as accessing various databases including OPAC; few of them accessed it when they in hostels. This might be due to the reasons that some students were not aware that they could access to OPAC while in hostels. This is supported by the study by Srirahayu and Anugrah (2019) who reported that users at Universitas Airlangga were not aware that OPAC can be accessed anywhere; they had the knowledge that OPAC could only be accessed using library computers and hence they waited in line to use it.

On the other hand, few (9.7%) respondents reported that they access to OPAC when they were at the study tables and seats made of cement locally known as *kimbweta* (singular) or *vimbweta* (plural) found nearby SNAL. The *vimbweta* are generally under shades on the ground in the premises allowing students sit for private studies or group discussions. The *vimbweta* ground has been connected with free WIFI to enable students to access library information resources. Students using their smartphones or laptops can access to OPAC to locate the

available information materials in the library. However, it seems many students do not know that they could access to OPAC from this point or they preferred accessing to it in the library.

Furthermore, the findings reveal that more than a half of respondents (59.1%) used computers located in the library to access to OPAC when searching for various books. This finding supports the study by Liang and Wu (2019); and Wu, Liang and Bi (2018) which reported that most cross-device transitions occurred from PC to PC and that PCs in the library satisfy users' information needs more than mobile devices when using the academic library to download information resources. As discussed early, SNAL has special computers for accessing OPAC as well as a number of computers in the computer laboratory which are connected to the Internet to enable ease access to OPAC.

Apart from the computers in the library, 38.7% of respondents indicated that they were using smartphones to access to OPAC. This might be due to the fact that OPAC is linked to the SNAL website to help ease access by users who visit the website. According to Vasudavan and Ravi (2013), students use mobile phones such as smartphones to access OPAC because they can get the required information anytime, anywhere without coming to the library. However, very few respondents use smartphones to access OPAC (Kapat, 2021). Usage of mobile phones to access to OPAC was also reported by Liang & Wu (2019); Wu & Bi, (2017); and Wu et al. (2018). The findings show that other devices such as laptops, and tablets were used to access OPAC. These, however, received low frequency in the current study because probably the students were not aware that they can use them to access to OPAC or few of them owned these devices.

On a different note, the findings reveal that many (38.7%) respondents were trained during the orientation session. The findings are not in line with those by Thirumagal, Mani, and Saravanakumar (2018) who found that almost a half of the respondents who participated in the study learnt about OPAC through their friends. Also, the study by Kumar (2019) found that many users learnt about OPAC through Library staff followed by those who said they learnt about it through self-efforts, friends and orientation or training respectively. The findings further reveal 23.7% of respondents received Information literacy training. This training has been important in equipping users with required skills to use information retrieval systems in libraries. Apart from this training, one-to-one training assisted by a librarian was reported as important on the usage of OPAC. Msagati (2016) is of the view that training on the use of OPAC plays an essential role in influencing effective use of OPAC.

Regarding the usage of OPAC, the findings of this study reveal that majority (91.4%) of the respondents used OPAC to satisfy their information needs. High usage of OPAC by BIRM students might have been contributed by the fact that this programme is offered by the Department of Information Studies (DIRS) which is under the Directorate of SNAL. With this regard, emphasis is made to ensure all students in this programme attend orientation sessions. Also, the programme has some courses related to library information resources such as Reference Services and Resources, Information literacy, Classification and Cataloguing just to mention a few. The findings of this study correspond to those of Lalnunpui et al. (2018) who also found high usage of OPAC at Mizoram University library. However, the study does not support Eserada and Okolo's (2019) study which found that students' use of OPAC was very low in selected University Libraries (Panjab University, Chandigarh (PUC), Panjab University, Patiala (PUP) and Guru Nanak Dev University, Amritsar (GNDU)) in South-South Nigeria. Also, the study by

Aju and Foti (2020), Ferdinand (2020), Mchnunguzi (2017) and Tyopev, Igbudu and Ver (2020) reported low use of OPAC.

It is worth noting that majority (77.6%) of the respondents noted the reason for using OPAC was to know the library materials available in the collection for a short time. This finding is in agreement with that of Bello and Bakrin (2020) and Rout and Panigrahi (2018) who found that majority of users used OPAC to gain knowledge on the available books and journals in the library. Other reasons for using OPAC are to locate materials on shelves by using call numbers and to know the status of books i.e. if the books are available or on loan. Narayanaswamy (2019) found that finding and locating library materials as well as knowing the available materials were the main purposes of using OPAC at Bangalore University Library. OPAC has been of importance among library users in various ways such as the quick location of the library materials and helping users to check the availability of the library materials in the library.

On the frequency of usage of OPAC, the findings expose that many (44.7%) respondents said they used OPAC on weekly basis, followed by those who said they used it on monthly basis and daily basis respectively. The fact that majority of the respondents said they used OPAC on daily to monthly basis indicates that BIRM undergraduate students considered OPAC as important to support their studies. The findings controvert Mahadevan and Kumar's, (2019) and Narayanaswamy's (2019) study which reported that daily users of OPAC outnumbered weekly and monthly users. Apart from that, the study by Bello and Bakrin (2020) found that more than a half of library users used OPAC on monthly basis, followed by those who indicated weekly basis and daily basis respectively. Also the study by Gana et al. (2019) found that majority of users at Bingham University Library used OPAC monthly. Moreover, the study by Cabonero et al. (2020) found that more than a half (57.4%) of respondents at Saint Mary's University (SMU), Northern Philippines used OPAC once per month followed by those who said they used it one in a week and everyday respectively.

Besides that, the findings suggest that large (49.5%) number of respondents reported lack relevant skills to use OPAC as a challenge hindering the usage of OPAC. This might be due to lack of ICTs skills which implies that more effort is needed to make sure all the undergraduate students are trained and equipped with the necessary skills to enable them access to and use OPAC. Lack of skills and knowledge has also been reported by other scholars such as Eserada and Okolo (2019), Fabunmi and Asubiojo (2013); Kasimani and Rajendran (2019); Kaur and Kathuria (2015); Lalnunpuii *et al.* (2018), Rout and Panigrahi (2018), Shivakumaraswamy and Narendra (2016), Swaminathan (2017) as well as Tyopev *et al.* (2020). Similarly, power outage has been found as another challenge affecting access and usage of OPAC at SUA. This is a serious challenge because lack of power affects access and usage of various information retrieval systems including OPAC. Aju and Foti (2020), Bello and Bakrin (2020), Dukku and Temboge (2019), Emiri (2019), Eserada and Okolo (2019), Msagati (2016), Tyopev *et al.* (2020) and Wema (2018) reported lack of reliable power supply which in turn affects various activities in the libraries. Furthermore, inadequate network is a challenge because for OPAC to work, the OPAC system and computers must be connected to the Internet. Sometimes Internet connection is not stable at the university causing problems to users. This finding is in line with that by Emiri (2019); Kasimani and Rajendran (2019); Msagati (2016), and Tyopev *et al.* (2020) who also found that network problems was a challenge hindering access to OPAC. Few (15.1%) respondents mentioned that they feared to use OPAC which can be associated with fear to use ICT devices.

Conclusion and recommendations

The study concludes that OPAC are very important and useful in supporting learning in higher learning institutions. Majority of undergraduate students involved in the study confirmed to be aware of OPAC and used it to check the availability of various information materials; to locate various library materials and check the status of books in the library. However, the respondents were faced with some challenges such as lack of ICT skills, power outages, network problems and fear of using OPAC; consequently these challenges affected the effective usage of OPAC at the university.

Based on the findings, it is recommended that more training such as orientation and information literacy training be provided regularly to library users. These training will equip users with necessary skills on how to utilise OPAC and help those who lack ICT skills and those who fear using OPAC to build self-confidence, and hence use OPAC. The library should increase the marketing of OPAC through various channels such as library websites, brochures and noticeboards. Moreover, the study recommends library management to think about how to solve the problem of power outage probably by soliciting funds to purchase a heavy-duty automatic generator to support the usage of OPAC and other services in the library.

Area for further study

As this study only focused on BIRM programme, it is recommended that another study should be done to compare BIRM programme with other programmes which have no courses related to library information resources on the usage of OPAC.

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