July 2023

Awareness of Online Library Services and Frequency of Utilization of Online Resources during Covid- 19 Pandemic among Education Students

Raffy D. Palma
University of Perpetual Help System Laguna, palma.raffy@uphsl.edu.ph

Mary Rose V. Navarro
University of Perpetual Help System Laguna, navarro.maryrose@uphsl.edu.ph

Myla P. Bernat
bernat.myla@uphsl.edu.ph

AWARENESS OF ONLINE LIBRARY SERVICES AND FREQUENCY OF UTILIZATION OF ONLINE RESOURCES DURING COVID- 19 PANDEMIC AMONG EDUCATION STUDENTS

Raffy D. Palma
University of Perpetual Help System Laguna
palma.raffy@uphsl.edu.ph

Mary Rose V. Navarro
University of Perpetual Help System Laguna
navarro.maryrose@uphsl.edu.ph

Myla P. Bernat
University of Perpetual Help System Laguna
bernat.myla@uphsl.edu.ph

Abstract. As the Covid-19 greatly affected the libraries, so too did the librarians' attempts to reach the library users through online and remote services. These emergency reforms have offered an unexpected opportunity to re-evaluate and re-imagine current service models in order to improve the library's user experience. This study looks into the awareness of online library services and the frequency of utilization of online resources among education students during the COVID 19 Pandemic. Descriptive in nature, the study utilized an online survey which was accomplished by 70 students of the College of Education. Findings revealed that respondents are fully aware of the online library services and they frequently utilize the library's online resources regardless of their gender, program, and year level. Findings also showed that the higher the level of respondents' awareness on online library services, the more frequent they utilize the online resources. As a whole, the results imply that libraries need to ensure the sustainability of their online resources and services by providing user education and supporting the users to cope-up with the changing information environment so that optimum use of information resources becomes possible during and after the pandemic.

INTRODUCTION

In December 2019, an unknown pneumonia appeared in Wuhan, P.R China, which mainly caused lung inflammation induced by a new coronavirus. With the spread of the epidemic, cases have emerged in a number of countries and regions around the world, with the virus infecting millions of people. The World Health Organization (WHO) named the virus severe acute respiratory syndrome coronavirus 2 (SARS-COV-2), and the pneumonia 2019 coronavirus disease (COVID-19). The virus is highly contagious and has a death rate that is multiple times higher than one of season flu. Its common symptoms are fever, dry cough, shortness of breath, and extreme tiredness. With the emergence of the COVID-19 in the country, governments across the region took very strict measures to limit its spread. The steps include the prohibition of all public gatherings such as festivals, mass, parties, and the indefinite closing of public establishments as well as schools, colleges and universities. Suspension of all air travel, lockdowns on cities and provinces across countries. The launching of testing programs was implemented for the identification of individuals that need to be isolated and for administered for treatment (UNESCO, 2020).]

Significantly, COVID-19 pandemic is having a profound impact, not only on people's health, but also on their way of learning, working and living. The global COVID-19 pandemic has had significant ramifications for libraries. As a result, librarians halted many services or programs that could potentially

spread the virus, which for many meant closing down their buildings and halting the circulation of all books and other tangible materials. All library resources and services were moved online in a matter of days, resulting in a flood of requests that demanded immediate attention. As the global death toll increased and hopes for containment faded, many public and private institutions across the country closed their doors, shifting to socially distant and online approaches. According to Malabanan, Galicia, and Navarro (2021), as the pandemic wreaks havoc on face-to-face human interactions, there has been an increase in the use of e-resources and services to adhere to safety protocols. There has been an increase in contactless and touchless library services as a result of limited physical and social interactions (Yap & Manabat, 2020).

A library as a place for offering various kinds of library information services for the benefit of users requires various kinds of information support services in order to carry out their activities. This library service includes the entire package of activities that the library provides to its users in order to enhance and achieve the goals of the parent institution (Xia, et al., 2016). Moreover, it consists of all packages of operations that the library offers to patrons to improve and accomplish the parent organization's aims. These services can be delivered manually or via a digital process (Al-Baridi, 2021). Reference, Online book reservations, Online Databases, OPAC, Internet Service, services for document delivery, services for bibliography, Book recommendations, Inter-library loan services, service for plagiarism tools, indexing and abstracting services, Library orientation services, user education services, knowledge management services, consulting services, and virtual instructions are among the library services. Equally important for the effective use of these services is awareness regarding library services among the users. Hence, the library authorities have undertaken suitable measures and methods to create awareness among the users of the library. Added to this, while evaluating the utility of library and information services, it is important to investigate the extent of awareness regarding the library information services among users especially during this unprecedented time of crisis.

Al-Baradi (2021) revealed that the faculty members did not properly utilize most of the library's online services. Most of the respondents rarely utilized the services such as the Web OPAC, Ask a Librarian, Interlibrary Loan, and Book recommendation as the rarely utilized online library services. Conversely, the study of Kumara & Acharya (2022) revealed that students are aware of the various library's services & facilities. Significantly, the circulation service is the major service that the students utilized following Plagiarism check and Literature search services. The study of Krishnappa & Kemparaju (2019) also revealed that students and faculty members are aware of the various library services offered by the library, asserting that these services are important for their research. With the study's findings, It is critical for library management to continually improve service quality in order to meet consumers' modern information needs. Conducting regular surveys of library service users can help management evaluate the strengths and weaknesses of library services, and then devise innovative ways to improve services that will meet users' information needs (Brown and Malenfant, 2015).

COVID-19 pandemic also emphasizes the significance of online resources and internet access to support education. Libraries shifted to online and revamped their webpages, transformed resources to electronic, and attentively planned various online offerings (Frederick & Wolff, 2020). Information is stored electronically and made accessible through electronic systems and computer networks using electronic resources. OPACs, CD-ROMs, Online-Databases, E-journals, E-books, and Internet resources are among these resources (Oak, 2016). These electronic resources have made users become more technologically friendly as resources can now be obtained online even from the comfort at home (Yebowaah & Plokey, 2017) .

Consequently, the study of Bhukuvhani et al. (2012) revealed that lecturers used at least one or more electronic information resources to find information for their teaching and/or research. Yebowaah and Plockey (2017) also reported that only few students utilize the Library's resources every week. This shows that some factors may be impacting how the e-resources are used in the Library.

As the Covid-19 greatly affected the libraries, so too did the librarians' attempts to reach the library users through online and remote services. These emergency reforms have offered an unexpected opportunity to re-evaluate and re-imagine current service models in order to improve the library's user experience. This study looks into the awareness of online library services and the frequency of utilization of online resources among education students during the COVID 19 Pandemic. The findings of this

study are helpful for libraries and information professionals to provide better services and assistance to its library clientele. The outcome of this study could also help the library staff as they will strategically come up with more in-depth marketability to improve patrons' awareness of the use of the library's online services and to enhance the high utilization on the use of its online resources. It will also provide greater realization to the patrons of the importance of online resources and services correspondingly, in this time of uncertainty. In addition, the study will be a great help to the librarianship profession which is the provider of these services. This will act as a guide for more wide-ranging research on the clientele's awareness of the online library services and online resources.

METHODOLOGY

The descriptive-correlational methods of research were used in the study. It aimed to determine the level of awareness of the library service and the extent of use of library resources. It also tests the differences of the respondent's level of awareness of online library services and frequency of utilization of online resources regardless of their gender, program and year level. Moreover, it also probed the relationship between library service awareness and the frequency of use of online resources.

A structured online questionnaire prepared using Google Forms was used to collect data from the 70 students of the College of Education. Specifically, the programs comprise the Bachelor of Science in Secondary Education, Bachelor of Library and Information Science, Bachelor of Elementary Education, Bachelor of Elementary in Childhood Education, and Bachelor of Elementary in Physical Education. The online survey was administered from February 23 to March 18, 2022.

The researchers used a self-made questionnaire which was based on the online library resources and services offered by the university library. The first part of the survey questionnaire sought to identify the profile variables, the second part comprised the respondents' level of awareness on online library services, while the third part dealt with respondents' frequency of utilization of online resources. To further ensure the validity of the questionnaire, it was validated by experts in management, research and statistics. The questionnaire used a four point-Likert scale with (3.25-4.00) as very high, (2.50-3.24) as high, (1.75-2.49) as low, (1.00-1.74) as very low for the level of awareness on online library services, while (3.25-4.00) for always, (2.50-3.24) for often, (1.75-2.49) for sometimes, (1.00-1.74) for never was used for the frequency of utilization of online resources.

The researchers obtained the permission of the participants with a letter of consent and before the actual data gathering. The consent form included information about the purpose of the study, the rights of the respondents as well as statements on confidentiality and conflict of interest. After gaining all the necessary permission, the researchers distributed the survey questionnaire to the respondents thru email and retrieved them after they were accomplished to ensure 100% retrieval rate.

The following statistical tools were used in the study: 1) Frequency and percentage distribution were used to describe the profile of the respondents in terms of their gender, program and year level 2) Weighted mean was used to describe the respondents' a) level of awareness on online library services and b) frequency of utilization of online resources;3) Mann-Whitney U test was used to determine the difference in the respondents' level of awareness on online library services and frequency of utilization of online resources when grouped according to their gender; 4) Analysis of Variance (ANOVA) was used to determine the difference in the respondents' level of awareness on online library services and frequency of utilization of online resources when grouped according to their program and year level and 5) Pearson r Moment Correlation Coefficient was used to determine the relationship between the respondents' level of awareness on online library services and their frequency of utilization of online resources.

RESULTS

Analysis and discussion of the awareness of online library services and frequency of utilization of online resources are presented in the succeeding tables and textual presentations.

Table 1
Profile of the Respondents

Profile Variables	Frequency	Percentage
Gender		
Male	7	10.0
Female	63	90.0
Program		
BEED	11	15.7
BLIS	18	25.7
BPE	4	5.7
BSE	23	32.9
BECE	6	8.6
BSPED	8	11.4
Year Level		
1st Year	23	32.9
2nd Year	9	12.9
3rd Year	14	20.0
4th Year	24	34.3
N=70		

Table 1 shows the profile of respondents for this study. Out of 70 respondents, 90.0 percent are female and 10.0 percent are male. In terms of the program, 32.9 percent of the respondents are Bachelor of Secondary Education (BSE), while 25.7 percent of the respondents are Bachelor of Library and Information Science (BLIS) program, 15.7 percent are from Bachelor of Elementary Education (BEED), 11.4 percent are Bachelor of Special Education (BSPED), 8.6 percent are Bachelor of Elementary Childhood Education (BECE), and 5.7 percent of the respondents are from Bachelor of Physical Education (BPE) program. As for the year level, the majority are 4th year level representing 34.3 percent of the respondents, while 32.9 percent of the respondents are from 1st year level, 20.0 percent are 3rd year level, and 12.9 percent of the respondents are in 2nd year level.

Table 2
Respondents' Level of Awareness on Online Library Services

Indicators	Weighted Mean	Verbal Interpretation	Rank

1.Online databases (Philippine e-journals, EBSCOHost, ESCRA, DOST-Starbooks)	3.18	High	4
2.Online Electronic Resources	3.35	Very High	2
3.Online Library Instruction	3.39	Very High	1
4.Online Reference Service Assistance	3.26	Very High	3
5.Document Delivery Service Online	3.16	High	5
Overall Weighted Mean	**3.27**	**Very High**	

Legend: (3.25-4.00 Very High)   (2.50-3.24 High) (1.75-2.49 Low)   (1.00-1.74Very Low)

Table 2 shows the respondent's level of awareness on online library services. Findings revealed that respondents are fully aware of the online library instruction offered by the University Library during COVID-19 pandemic, having a weighted mean score of 3.39 or very high and rank as 1. It is also evident that respondents are fully aware of the various electronics resources available in the library having a weighted mean of 3.35 or very high and rank as 2. Respondents are also aware about the Online Reference Service Assistance that was offered to them by the University library having a weighted mean score of 3.36 or very high and rank as 3.

Findings also revealed that respondents have a high level of awareness on the various online databases in the library as depicted by the weighted mean of 3.18 or high and rank as 4. Moreover, respondents are also aware of the Document Delivery Services offered by the university library during COVID-19 pandemic as evidenced by the weighted mean of 3.16 or high and rank as 5.

To sum-up, respondents are fully aware about the various online services offered by the library during COVID-19 pandemic, having an overall weighted mean of 3.27 or very high. The result implies that despite the challenges brought by the COVID19-pandemic in the new mode of learning, students still acquaint themselves with the various online services offered by the University Library. This is congruent to the study of Ilori (2019) wherein postgraduate students are aware of the various services provided by the library. The researcher also suggests that the library management should frequently organize training programs on the effective use of library services. This was also in line with Al-Baradi's (2019) study, which showed that faculty members were aware of the online library services and they have used these for study and teaching.

Table 3
Respondents' Frequency of Utilization of Online Resources

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. Online databases (Philippine e-journals, EBSCOHost, ESCRA, DOST-Starbooks)	2.76	Often	2.5
2.E-books/Fictions	2.74	Often	4
3.E-journals	2.76	Often	2.5
4.Educational videos	2.90	Often	1
5. E-newspaper and magazines	2.57	Often	6
6.E-thesis and dissertation	2.66	Often	5
7.E-legal resources	2.51	Often	7
Overall Weighted Mean	**2.70**	**Often**	

***Legend:** (3.25-4.00 Always)   (2.50-3.24 Often) (1.75-2.49 Sometimes)   (1.00-1.74 Never)*

Table 3 depicts the respondents' frequency of utilization of library online resources. Findings revealed that educational videos are the most frequently used by the respondents having a weighted mean of 2.90 or often and rank as 1. Significantly, e-journals and online databases such as philippine e-journals, EBSCOHost, DOST-Starbooks and ESCRA are also frequently used by the respondents having a mean of 2.76 or often and rank 2.5 respectively.

Results also revealed that e-books/fiction have been widely used by the respondents, depicting a mean of 2.74 and rank as 4 or often. E-theses and dissertation are also frequently utilized by the respondents having a weighted mean of 2.66 or often and rank as 5. Evidently, respondents also utilize the e-newspaper and magazines having a mean of 2.57 or often and rank as 6. Furthermore, among the listed online resources the e-legal resources are the least used by the respondents having a weighted mean of 2.51 or often and rank as 7.

In general, results revealed that respondents have regularly utilized the library resources offered by the University Library as evidenced by the overall weighted mean of 2.70. This suggests that despite the limited physical access to the library buildings and the resources brought by the COVID-19 pandemic, students still have a high engagement in the library by utilizing the various online library resources offered by the University Library. The findings corroborate the study of Edem and Egbe (2016) wherein students utilized the library electronic resources, specifically e-journals were the most often used electronic resources.

Table 4

Difference in the Respondents' Level of Awareness on Online Library Services When Grouped According to their Profile Variables

Profile Variables		Mean	Inferential Statistics	p-value	Decision	Interpretation
Gender	Male	3.04	U=143.500 Z=-1.509	.131	H$_0$ not rejected	Not Significant
	Female	3.29				
Program	BEED	3.31		.		
	BLIS	3.44				
	BPE	2.90	F=1.935	.101	H$_0$ not rejected	Not Significant
	BSE	3.37				
	BECE	2.83				
	BSPED	3.05				
Year Level	1st Year	3.13				
	2nd Year	3.35			H$_0$ not rejected	
	3rd Year	3.29	F=.785	.506		Not Significant
	4th Year	3.36				

Significant @.05

For the difference in the respondents' level of awareness on online library services when grouped according to their gender (U=143.500, Z=-1.509), program (F=1.935) and year level (F=.785), p-values of .131, .101 and .506 respectively were obtained. All these probability values were higher than the test of significance at .05 leading to the non-rejection of the null hypothesis, suggesting no significant difference. This means that the respondents have the same level of awareness on online library services regardless of their gender, program and year level. According to Wani and Ganaie (2020), university libraries are essential components of educational institutions and play an important role in the support of academic and research-related pursuits. The improvement of research and academic endeavors is facilitated by making efficient use of the resources and services offered by academic libraries, in particular university libraries. The effectiveness of academic libraries is directly proportional to the level of awareness and familiarity of the library's users regarding the various library services and resources. That is why students are aware of the online library services regardless of their gender, program, and year level.

Table 5

Difference in the Respondents' Frequency of Utilization of Online Resources When Grouped According to their Profile Variables

Profile Variables		Mean	Inferential Statistics	p-value	Decision	Interpretation
Gender	Male	2.90	U=185.500 Z=-.687	.492	H_0 not rejected	Not Significant
	Female	2.68				
Program	BEED	2.99		.		
	BLIS	2.98				
	BPE	3.00	F=2.002	.909	H_0 not rejected	Not Significant
	BSE	2.48				
	BECE	2.76				
	BSPED	2.11				
Year Level	1st Year	2.58			H_0 not rejected	Not Significant
	2nd Year	2.57	F=.600	.617		
	3rd Year	2.94				
	4th Year	2.73				

Significant @.05

For the difference in the respondents' frequency of utilization of online resources when grouped according to their gender (U=185.500, Z=-.786), program (F=2.002) and year level (F=.600), p-values of .492, .909 and .617 respectively were obtained. All these probability values were higher than the test of significance at .05 leading to the non-rejection of the null hypothesis, suggesting no significant difference. This means that the respondents have the same frequency of utilization of online resources regardless of their gender, program and year level. This could be due to the library department's efforts to provide virtual library instruction to the College of Education. That is why students, regardless of gender, program, and year level, are knowledgeable enough to use the library's online resources. This component was especially important given the participation of students from various programs, many of whom had never previously used the library for instruction. When marketing library services to new or unfamiliar students, it is critical that they understand the value of instruction. Rodrigues and Mandekar (2020) stated that one of the impacts of library instruction to students is to improve student's attainment of institutional core capacity and proficiency. They suggested that information literacy instruction or library instruction must be delivered to students at the beginning of the year with the orientation programme that helps them to obtain a set of accomplishments. In conjunction, the UPHSL Library has been providing library instruction at the beginning of each school year.

Table 6

Relationship Between the Respondents' Level of Awareness on Online Library Services and their Frequency of Utilization of Online Resources

Variables	Statistical Treatment (Pearson r)	p-value	Decision	Interpretation
Awareness and Frequency	.320 (weak correlation)	.007	Null Hypothesis Rejected	Significant

Significant @ 0.01

For the relationship between the respondents' level of awareness of online library services and their frequency of utilization of online resources, a Pearson r value of .320 was obtained indicating a weak correlation. Meanwhile, a probability value of .007 which was lower than the test of significance at .01 led to the rejection of the null hypothesis, indicating a significant relationship between the variables. This means that the higher the level of respondents' awareness on online library services, the more frequently they utilize the online resources. The results imply that most of the respondents used the resources and services offered by the library effectively. It can be concluded that students' awareness of library services increases the usage of library resources. Therefore, there is a significant relationship between the students' awareness of online library services and the frequency of online resources.

CONCLUSION

WHO (2020) has warned that COVID-19 will likely linger for a long time. Although vaccines have been discovered, and more people have already been immunized against the virus, some are still receiving the virus vaccine. There are still many coronavirus cases in some countries, including the Philippines. This could have a negative impact on school, university, and college teaching and learning activities, as well as the services provided by libraries within these institutions. In the present scenario, library online resources and services appear to be highly significant. The library's materials and services are vital to the operation of every academic institution. Therefore, it is essential to maximize and effectively utilize these resources and services. The usefulness of an academic organization's library resources and services is primarily dependent on the group it represents. Based on the library's principles and guidelines, the resources and services must be updated on a regular basis to keep up with changing customer needs in the midst of unprecedented times. The findings of the study suggest that students from College of Education are aware of the online library services and they frequently utilize the library's online resources regardless of their gender, program, and year level. Findings also showed that the higher the level of respondents' awareness on online library services, the more frequent they utilize the online resources.

For the sustainability of the library in providing user education and supporting the users to cope-up with the changing information environment, so that optimum use of information resources becomes possible during and after the pandemic, the following are recommended. 1) The Library should enhance its promotional activities focused towards marketing the online resources and services. New campaign strategies utilizing online platforms should be adopted. 2) The library should continue to expand its library orientation programs, strengthen library instruction in both face-to-face and online settings, continually distribute fliers, and send notifications via e-mails and text messages via the library account in order to increase the number of students spending time utilizing online library resources. 3) The library should expand proactive library user education and information literacy programs by providing online user education programs and continuing the three–level orientation regarding the use of the library resources and services. 4) The library staff are also encouraged to attend webinars, trainings and

workshops on how to use new technologies and other social media platforms for online activities and programs of the library. By doing so, they will be better equipped to provide patrons with information regarding the library's resources and services.

ACTION PLAN

An action plan is proposed for the sustainability and improvement of the library online resources and services.

Area Thrust	Objectives	Strategies	Time Frame	Persons Involved	Sources of funds	Success Indicator
e-Resources (Online Databases E-books/ Fictions, E-Journals, Educational, Newspaper and Magazines, E-thesis and Dissertations, Legal Resources)	Improve e-resources	Continues acquisition and subscription of e-Resources by purchase or through open Access databases.	Year round	Director of Libraries Librarian and library support staff	Library Budget	20% increase of e-resources
e-Services (Online Databases, Online Electronic Resources, Online Library Instruction, Online Reference Service Assistance, Document Delivery Service Online)	Provides better and reliable online library services	Assigned well trained library staff to focus on delivery of library online services (e-Services)	Year round	Director of Libraries IT and Readers Services Librarian	Library Budget	20% increase utilization of online library services
Information Literacy	Expand proactive Library user education and information literacy programs.	Provide Online user Education programs and continue the three–level orientation regarding the use of the library and its resources.	1st Month of every semester	Director of Libraries Reference Librarian IT Librarian	Library Budget	100% Delivery of recorded and live library orientations, information literacy sessions, and orientation through online platforms.
e-library	Develop and maintain authoritative and up-to date e-resources collection	Continues evaluation of e-resources available at e-library to make sure it is in line with the current program offering of the University	Year Round	Director of LIbrary, LIbrary Staff, Deans, Faculty	Library Budget	20% increase of utilization of e-resources

Staff Development	To provide capability training and skills development for library personnel	Encourage library staff to attend webinars, trainings and workshops on how to use new technologies and other social media platforms for online activities and programs of the library.	Year Round	Director of LIbrary, LIbrary Staff	Library Budget	Library staff are able to use technology and social media platforms in various online activities and programs of the library.

REFERENCES

[1]Al-Baradi, S. A. (2021). Use and awareness of online library services among faculty members of KFUPM, Dhahran, Saudi Arabia. *Library Philosophy and Practi*ce (e-journal). 5366. https://digitalcommons.unl.edu/libphilprac/5366/.

[2]Bhukuvhani, C., Chiparausha, B., and Zuvalinyenga, D. (2012). Effects of electronic information resources skills training for lecturers on pedagogical practices and research productivity. https://files.eric.ed.gov/fulltext/EJ1084145.pdf.

[3]Brown and Malenfant (2015). Academic Library Contributions to Student Success: Documented Practices. Association of College and Research Libraries. http://www.ala.org/acrl/sites/ala.org.acrl/files/content/issues/value/contributions_report.pdf.

[4]Edem, N. B. & Egbe, N. (2016). Availability and utilization of electronic resources by postgraduate students in a Nigerian university library: A case study of University of Calabar, Nigeria. Information and Knowledge Management, 6(2), 60-69. https://www.iiste.org/Journals/index.php/IKM/article/view/28714.

[5]Frederick, J., & Wolff-Eisenberg, C. (2020). Academic library strategy and budgeting during the COVID-19 pandemic. https://sr.ithaka.org/wp-content/uploads/2020/12/SR-Report-Academic-Library-Strategy-and-Budgeting-During-the-COVID-19-Pandemic-120920.pdf

[6]Ilori, M. E. (2019). A pilot study on awareness and use library services among postgraduate students in Nigeria. *Library Philosophy and Practice*. https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=5696&context=libphilp rac.

[7]Kumara, P. & Acharya, S. (2022). Evaluation of Library Services and Facilities by the Students of BLDE (DU) during the Pandemic COVID-19: A Study. *Library Philosophy and Practice* (e-journal). 6847. https://digitalcommons.unl.edu/libphilprac/6847.

[8]Malabanan, E. D., Galicia, L. S., & Navarro, M. R. V. (2021). Challenges and strategies of academic libraries during covid-19 crisis among NOCEI member schools in the Philippines. *University Library at a New Stage of Social Communications Development. Conference Proceedings,* (6), 20–29. https://doi.org/10.15802/unilib/2021_249558

[9]Oak, M., (2016). Assessing the library users expectations: a select study of management institutions in Savitribai Phule Pune University (SPPU), Pune, India. *International Journal of Library & Information Science* (IJLIS). Vol. 5(3), Sep–Dec 2016, pp. 149– 158. https://www.academia.edu/30596763/assessing_the_library_users_expectations_a_select_study_of_management_institutions_in_savitribai_phule_pune_university_sppu_pune_india.

[10]Rodrigues, M. and Mandrekar, B. (2020). Impact of academic library services on students' success and performance. *Library Philosophy and Practice*. https://digitalcommons.unl.edu/libphilprac/4246.

[11]Wani, J. A., and Ganaie, S. H. (2020). *Awareness of university library services and resources among postgraduate students of selected universities of J&K: a comparative assessment.* http://dx.doi.org/10.21786/bbrc/13.15/39.

[12]World Health Organization. (2020b, August 10). Draft landscape of COVID-19 candidate vaccines.https://www.who.int/publications/m/item/draft-landscape-of-covid-19-candidate-vaccines.

[13]Xia, Y., Snider, A. and Xia, L. (2016). Service quality improvement strategies and tools for university libraries. *International Journal of Society System Sciences* 3:99-119. https://www.inderscience.com/info/inarticle.php?artid=38935.

[14]Yap, J., & Manabat, A. (2020). Managing a sustainable work-from-home scheme: Library resiliency in times of pandemic. *International Journal of Librarianship*, 5(2), 61-77.https://doi.org/10.23974/ijol.2020.vol5.2.16

[15]Yebowaah, F. A. & Plockey, F. D. D. (2017). Awareness and use of electronic resources in university libraries: A case study of University for Development Studies Library. *Library Philosophy and Practice.*