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Academic Libraries during the COVID-19 in the Higher Education Institutions: A Case of Supporting Role to an Online Academic Activities

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ABSTRACT

This article has been designed to study the role of academic libraries and online academic activities among students during the COVID-19 in higher education institutions. The outbreak spread from Wuhan city of China and placed online learning as well as hybrid modes of academic activities around the globe. A quantitative study design has been used to conduct an online cross-sectional survey in two public sector universities in the Punjab province. A sample of 1058 university students enrolled in BS programs out of 1820 participated through a classified random sampling technique. A structured questionnaire pretested from 30 students was used as a tool for data collection. This study concludes that all the predictors used as an independent variable including online library services, online research support, online library facilities, online material availability, and online audio/video material predict favourably online learning activities among university students during the COVID-19 outbreak.

Keywords: Academic Library, Online Library Services, Online Research Support, Online Academic Activities, Higher Education Institutions

INTRODUCTION

The COVID-19 outbreak spread from Wuhan city of China and placed online learning or academic activities as well as hybrid modes of academic activities in higher education institutions specifically and other educational institutions generally (Omar et al., 2020; Yang et al., 2020; Shoaib et al., 2022; Shoaib et al., 2021h; Shoaib and Abdullah, 2021). Several studies have found that social distancing rules have been implemented and educational institutions closed temporarily (Ahmad et al., 2021b; Ahmad et al., 2021a; Shoaib and Abdullah, 2020). All the academic activities have been transformed into an online mode (Shoaib et al., 2021i; Ahmad et al., 2021c). Academic libraries provide different types of facilitation in this matter (Shoaib et al., 2022). In the developed world, academic libraries have not faced problems as compared to the developing world in terms of the transformation of library material into an online resource (Shoaib et al., 2021g; Shoaib and Ullah, 2021a; Shoaib and Ullah, 2021b). They faced several issues in academic libraries including infrastructure, internet connectivity, resources, databases access, and expertise of the library professionals

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(Shoaib et al., 2021h; Shoaib et al., 2021e). However, academic libraries tried their level best to facilitate library patrons during the COVID-19 outbreak (Shoaib et al., 2022; Shoaib and Abdullah, 2021; Ahmad et al., 2021c; Shoaib and Abdullah, 2020). Henceforth, this article has been aimed to evaluate the academic libraries and online academic activities during the pandemic in higher education institutions in Pakistan.

REVIEW OF LITERATURE

COVID-19 Pandemic Outbreak: The epidemic spread all over the world from Wuhan city of China in December 2019 (Coetzee and Kagee, 2020; Ćosić et al., 2020; Depoux et al., 2020). It affected the whole world and Pakistan is one of them (Gopalan and Misra, 2020; Haktanir et al., 2020; Hogan, 2020; Imran et al., 2020). In Pakistan, the spread of COVID-19 was very slow in its initial days and nowadays it is at its highest stage (Shoaib and Abdullah, 2021; Shoaib and Abdullah, 2020). The number of COVID-19 patients is increasing, and death is also increasing day by day (WHO, 2020c; WHO, 2020a; WHO, 2020b). The government is trying to lock the movement of individuals and close all public domains including educational institutions (Naseer et al., 2021b; Ahmad et al., 2021c; Ahmad et al., 2021a). On the other hand, individuals are facing a lot of problems in Pakistan during the lockdown (Shoaib et al., 2021e). They are facing social isolation, social distancing, loss of intimacy, business loss, loss of labour, and also educational institutions are closed. The COVID-19 outbreak affected the whole world including developing countries (WHO, 2020a; WHO, 2020c). It stopped the whole business of the world along with educational activities at the start of its spread. Moreover, the situation is going dangerous and World Health Organization is also trying to curtail but still, nothing happened (WHO, 2020d; WHO, 2020b; WHO, 2020c). Organizations are trying to prepare the medicine for COVID-19 but still fail.

Several researchers reported that COVID-19 is creating a lot of problems including educational issues for individuals all over the world (Plohl and Musil, 2020; Previtali et al., 2020; Ranney et al., 2020; Seraphin, 2020; Sood, 2020; Swerdlow et al., 2020; Shoaib et al., 2021g; Shoaib et al., 2021f; Shoaib et al., 2021d). It is creating a dangerous environment of fear of infection among students and individuals (WHO, 2020c; WHO, 2020a). It revealed that this disease created psychological problems all over the world and educational institutions have no exemption (Ćosić et al., 2020; Depoux et al., 2020; Dong et al., 2020; Driggin et al., 2020). Similarly, several researchers also reported that during COVID-19, people lose their businesses and jobs in the private sector (Bai et al., 2020). Moreover, daily workers are also stopped and locked in their homes (Naseer et al., 2021b; Naseer et al., 2021a). They cannot fulfil their basket needs including food, health, and shelter including the cost of utilities (Dong et al., 2020). In

several countries, people have no awareness and are not using safety measures, and facing COVID-19 disease (Adams and Walls, 2020). At the same time, the media is also playing an important role to create awareness regarding COVID-19 (Ioannides and Gyimóthy, 2020). Health practitioners are also working in hospitals to facilitate and provide care to patients (Plohl and Musil, 2020). In Pakistan, only a few studies are conducted on COVID-19 and highlighted its dangerous results (Shoaib et al., 2022; Shoaib et al., 2021i).

Lockdown and Educational Institutions: A huge body of literature has highlighted the issue of closer of educational institutions (Samaroudi et al., 2020). As the lockdown has started, all the educational institutions have been closed (Tammaro, 2020). Latter on academic activities have been shifted to an online mood (Shoaib et al., 2021h). This transformation of education activities was decided as per standard operating procedures and world health organizations around the globe (Ahmad et al., 2021a; Abdullah and Shoaib, 2021; Shoaib and Abdullah, 2020). The lockdown started to minimize the risk of the pandemic (Shoaib et al., 2021i). People were restricted and the academic library has been closed. The study finding of Shoaib et al. (2021i) asserted that the outbreak affected educational institutions at a large level. Further, the physical distancing rule has been implemented (Ahmad et al., 2021a; Shoaib and Abdullah, 2020). The study also asserted that students faced learning difficulties during academic activities (Ali et al., 2022; Shoaib et al., 2021c; Shoaib et al., 2021b; Shoaib et al., 2021a; Shoaib, 2021; Shoaib et al., 2021f; Shoaib et al., 2021e; Shoaib et al., 2021d; Abdullah and Shoaib, 2021; Shoaib et al., 2020; Shoaib and Ullah, 2019).

Academic Libraries and Online Academic Activities: The studies and empirical evidence found the role of academic libraries to support online activities in developed and developing countries (Wan, 2021; Force and Wiles, 2021; Mishra et al., 2020; Harlow and Hill, 2020). As the lockdown was started, academic activities were transformed to online (Weeks et al., 2020; Demuyakor, 2020). At the same time, academic libraries supported these activities in the developed world (Paudel, 2021; Aduba and Mayowa-Adebara, 2021). However, the academic libraries of the developing countries were not in a position to support the online educational system (Shoaib et al., 2021i; Ahmad et al., 2021c; Ahmad et al., 2021b). The study asserts that a lot of problems with online academic activities include lack of internet connectivity, load shading, lack of infrastructure, lack of communication, and as well as non-availability of digital resources (Shoaib et al., 2021i). Students and teachers faced several problems and the academic libraries tried their level best to digitalize the academic resources for teachers and students (Ahmad et al., 2021b). Later on, academic library staff started to provide online library resources (Sedaghatjou et al., 2021; Sharma and Kiran, 2021; Tang et al., 2020; Weeks et al.,

2020; Zapata-Cuervo et al., 2021). These resources included digitalization of print material, new arrival display, updating catalogue, access to digital resources, research support material, and as well online services including provision of online material, online inquiry system, and response to teachers and students (Shoaib et al., 2021i; Ali et al., 2021; Ahmad et al., 2021c). A huge body of literature responds that academic libraries provided facilitation to online academic activities at the tertiary level (Ćirić and Ćirić, 2021; Crawford et al., 2020; Hassounah et al., 2020; Nuere and de Miguel, 2020). It is important to mention here that academic libraries facilitate online academic activities through different ways to support sessional and other interlinked academic activities in Pakistan (Shoaib et al., 2020). Thus, this study has been conducted in quantitative in nature similar to other studies (Shoaib et al., 2013; Anwar et al., 2013; Shoaib et al., 2012b; Shoaib et al., 2012a; Shoaib et al., 2011; Ullah and Shoaib, 2021; Shoaib et al., 2021c).

THE DATA AND METHODS

Study Design: This study opt quantitative design and the rationale has been based on the research topic, objective, independent and dependent variables, and more important is sample size i.e., more than 30.

Population and Sampling Unit: The population of this study has consisted of two public sector universities including the University of Gujrat and Government College University Faisalabad in the province of Punjab. The element of the study has been based on the enrolled students in BS (4 Years) programs, male and female, enrolled in different semesters, and on-campus study programs.

Sampling Procedures: A classified random sampling technique has been used in the two public sector universities to select the students. The sample size determination formula has been used to draw a representative sample from the target population (Yamane, 1967). Further, the sample size has been split over universities, faculty, departments, and semesters of BS programs. A total of 1058 students out of 1820 have participated in the survey conducted online using Google Forms. The response rate is very good as COVID-19 affected all the social institutions and social distancing rules have been implemented.

Technique and Tool of Data Collection: A survey has been conducted among the university students and an online Google form has been distributed to the students to avoid the risk of contagious disease. A structured questionnaire using an attitudinal scale of agreement and disagreement has been used to measure the response against the variables.

Pilot Testing: A pretesting has been done from 30 students' randomly selected (15 students from each university). The results of the measurement tool have been described in Table 1. It

is worth stating that all the variable's reliability tests confirmed the variables for further process of data collection.

Table 1

Reliability Test

Sr. No.	Variables	Codes	Items	Reliability Value
i	Online Library Services	ONLS	4	.748
ii	Online Research Support	ONRS	6	.792
iii	Online Library Facilities	ONLF	6	.783
iv	Online Material Availability	ONMA	6	.727
v	Online Audio/Video Material	OAVM	5	.761
vi	Online Academic Activities	ONAA	21	.749
	Overall		48	.942

Data Collection: Data collection has been done using a consent form and as per the research ethical standards. The questionnaire has been distributed using WhatsApp numbers collected from the concerned departments. The rationale to opt for this process of data collection has been based on online academic activities implemented in all the higher educational institutions. WhatsApp groups have been created for the smooth running of academic activities.

Data Analysis: A total of 1058 students have participated in the online survey. The data has been computerized after careful editing and screening process. Further, data analysis has been done.

RESULTS AND DISCUSSIONS

The primary data reveals that 59 percent of the students are female and 41 percent are males enrolled in different BS programs at the universities. The analysis also asserts that 66 percent of the students belong to urban residential backgrounds and only 34 percent belong to rural residential backgrounds. The family occupation of the students varies from student to student. However, the majority of the family occupations have been reported as business, farming, and labour. It is worth stating that students have been residing in an average family size of eight family members and the majority of the students have reported the structure as a joint family system.

Table 2 depicts the summary statistics of the sample. The primary data reveals that the range value of variable online library services is 9, the minimum value is 7, the maximum value is

16, the mean value is 14.24, the standard deviation is 1.819, and the variance has been calculated as 3.307. Similarly, the statistical analysis asserts that the range value of variable online research support is 9, the minimum value is 11, the maximum value is 20, the mean value is 17.71, the standard deviation is 2.267, and the variance has been calculated as 5.139. Likewise, the tabulated data points out that the range value of variable online library facilities is 12, the minimum value is 12, the maximum value is 24, the mean value is 21.53, the standard deviation is 2.473, and the variance has been calculated as 6.117. In the same fashion, the analysed statistical data shows that the range value of variable online material availability is 14, the minimum value is 10, the maximum value is 24, the mean value is 20.84, and the standard deviation is 3.085, and the variance has been calculated as 9.514. However, the data collected from universities point out that the range value of variable online audio/ video material is 15, the minimum value is 5, the maximum value is 20, the mean value is 15.95, the standard deviation is 3.596, and the variance has been calculated as 12.930. Consequently, it is stated that the range value of variable online academic activities is 36, the minimum value is 44, the maximum value is 80, the mean value is 71.32, the standard deviation is 7.272, and the variance has been calculated as 52.879.

Table 2

Descriptive Statistics (n=1058)

Variables	Rang.	Mini.	Maxi.	Mean	Std. Devi.	Vari.
Online Library Services	9	7	16	14.24	1.819	3.307
Online Research Support	9	11	20	17.71	2.267	5.139
Online Library Facilities	12	12	24	21.53	2.473	6.117
Online Material Availability	14	10	24	20.84	3.085	9.514
Online Audio/Video Material	15	5	20	15.95	3.596	12.930
Online Academic Activities	36	44	80	71.32	7.272	52.879

Table 3 presents the results of the correlation analysis. All the variables show a positive correlation with each other. However, online academic activities have a high positive correlation with online library services, online research support, and online library facilities. It is worth mentioning here that there is a weak positive correlation between online library services and online audio/ video material. Further, all the remaining variables have positive-

moderate and positive-weak correlations. The study findings are in favour of several results in this context (Shoaib et al., 2022; Shoaib et al., 2021h; Shoaib et al., 2021g).

Table 3

Pearson Correlation Statistical Test (n=1058)

Vari.	ONLS	ONRS	ONLF	ONMA	OAVM	ONAA
ONLS	1	.443**	.471**	.353**	.117**	.702**
ONRS		1	.627**	.470**	.322**	.829**
ONLF			1	.383**	.287**	.860**
ONMA				1	.363**	.523**
OAVM					1	.327**
ONAA						1

Table 4

OLS Multiple Regression Analysis Predicting Online Academic Activities (n-1058)

Predictors	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
Online Library Services	1.190	.032	.298	36.779	.000
Online Research Support	1.213	.030	.378	39.901	.000
Online Library Facilities	1.337	.027	.455	49.222	.000
Online Material Availability	.139	.019	.059	7.209	.000
Online Audio/Video Material	.038	.015	.019	2.484	.013
R =.975, R Square = .951, Adjusted R Square =.950, df =5, F = 4053.209, Sig. =.000					

Table 4 insights regression analysis predicting online academic activities among students in public sector universities. In this analysis, the predictors are online library services, online research support, online library facilities, online material availability, and online audio/video material. It is important to discuss here that online academic activities have been used as a dependent variable. The analysis shows that all these predictors are predicting online academic activities among BS students at the tertiary level. However, the variable online audio/ video material has been partially predicting the dependent variable. It is important to state here that

the results of this study have been similar to the study conducted by Wijayasundara (2021), (Wang and Lund, 2020), Sallauka (2021), Jung et al. (2021), Howes et al. (2021), and Condic (2021). However, multiple studies are also aligned with this study based on the study design and nature of results in the field of library, sociology of education, and information sciences (Shoaib and Ullah, 2021a; Shoaib and Ullah, 2021b; Shoaib, 2021; Shoaib and Ullah, 2019; Anwar et al., 2013).

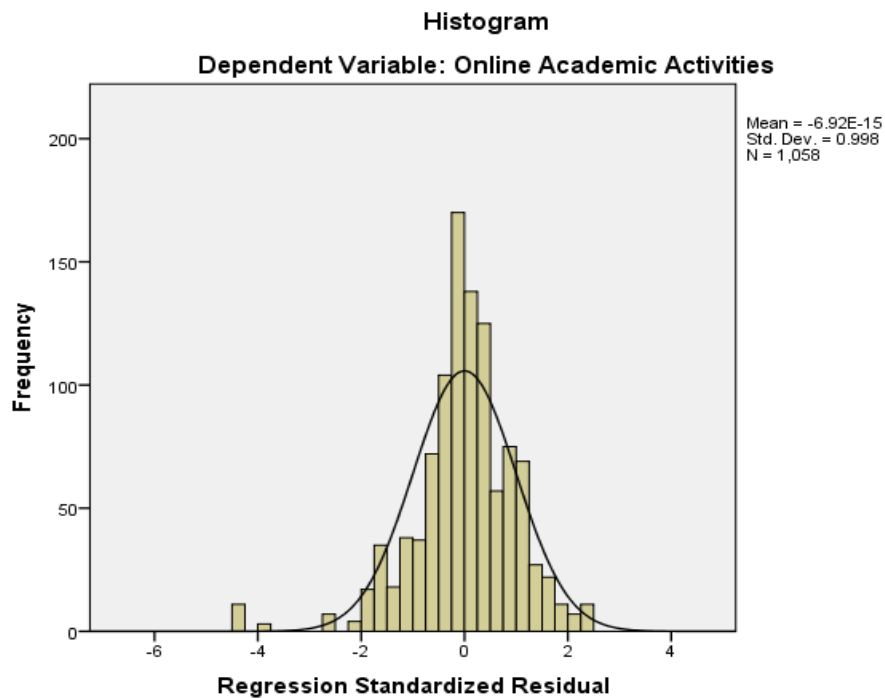


Figure 1: Showing Histogram

CONCLUSION

This study concludes that academic libraries have facilitated the students during the COVID-19 outbreak in terms of online academic learning activities. Academic libraries tried their level best to transform all the physical library resources into an online library resource to facilitate the students. In this regard, academic library administration faced several challenges including infrastructure, internet connectivity, and access to advanced databases. This study concludes that all the predictors used as independent variables including online library services, online research support, online library facilities, online material availability, and online audio/video material predict the online learning activities among university students. This study recommends that academic libraries should provide access to the latest online databases to university students for the smooth running of academic activities in the future.

Future Research: Research can be conducted using the triangulation method and more than two public sector universities. The unit of analysis can be teachers, library staff, library users, and university administrations.

Limitations of the Study: This article has been based on only two public sector universities and a quantitative study design.

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