Bridging the Gap: Assessing Academic Library Support for Distance Learning in Jordanian Universities

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Article Info	ABSTRACT
	The study sought to examine the role of academic libraries in facilitating the process of distance learning in Jordanian universities. The study objectives were accomplished using a descriptive approach. The data-gathering process involved the administration of an online questionnaire by email, Facebook, and Twitter. Additionally, a literature review of articles relating to the topic matter was conducted as part of the study. The data analysis was conducted with SPSS 25. The survey revealed that university libraries offered moderate and low degrees of support for the distance education process. Libraries failed to utilize various technologies, including their website and social media platforms, to enhance their digital content and provide the necessary information to users. The databases to which the library had a subscription had a low accessibility rate of 38%. Similarly, the academic library's virtual activities to promote reading also had a low accessibility rate. Furthermore, the library lacked any mechanisms for user engagement. However, the results indicated that the guidelines and rules are adaptable to the library's service provision. The authors highlight the suitability of this topic for future peer research and investigation.

ملخص

الكلمات المفتاحيّة:

المكتبات الأكاديمية

التعلم عن بعد

خدمات المعلومات

الوباء

الجامعة الأردنية

سعت الدراسة إلى فحص دور المكتبات الأكاديمية في تسهيل عملية التعلم عن بعد في الجامعات الأردنية. حقّقت أهداف الدراسة باستخدام نهج وصفي. تضمنت عملية جمع البيانات إدارة استبيان عبر الإنترنت عن طريق البريد الإلكتروني والفيسبوك وتويتر. بالإضافة إلى ذلك، أجريت مراجعة أدبية للمقالات المتعلقة بالموضوع كجزء من الدراسة. أيضا أجري تحليل للبيانات من خلال برنامج SPSS. كشفت النتائج أن المكتبات الجامعية تقدم درجات متوسطة ومنخفضة من الدعم لعملية التعليم عن بعد. فشلت المكتبات في استخدام تقنيات مختلفة، بما في ذلك موقعها على الويب، ومنصات الوسائط الاجتماعية، لتحسين محتواها الرقمي وتوفير المعلومات اللازمة للمستخدمين. كان معدل الوصول لقواعد البيانات التي اشتركت فيها المكتبة منخفضا بنسبة 38٪. وبالمثل، فإن الأنشطة الافتراضية للمكتبة الأكاديمية لتعزيز القراءة كان لها معدل وصول منخفض. علاوة على ذلك، تفتقر المكتبة إلى أي من الآليات لإشراك المستخدمين. ومع ذلك، أشارت النتائج إلى أن المبادئ التوجيهية والقواعد قابلة للتكيف مع تقديم خدمات المكتبة.

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1   Introduction

Currently, the global community is grappling with the swift dissemination of the Coronavirus, a highly contagious illness. The elderly are susceptible to significant disabilities caused by this virus. Though numerous individuals were apparently in good health, they became casualties of COVID-19. Regardless of immunity, the disease has mostly affected the respiratory system and has caused serious symptoms in many individuals. COVID-19 has been designated as a pandemic by the World Health Organization because of its swift and extensive dissemination across many regions. Almost every country in the globe experiences daily diseases and deaths. Consequently, the majority of nations have adopted proactive measures by enforcing the closure of public spaces, imposing curfews, and intermittently or temporarily restricting access to areas deemed high-risk due to elevated rates of fatalities and infections (Kohlburn et al., 2023). Operations have been halted in numerous government and business sector establishments. Educational institutions such as schools, universities, and institutes have been shut down. Additionally, there was a halt in travel and a shutdown of numerous airports globally to mitigate the transmission of the virus and safeguard the population.

Furthermore, to implement social distancing measures, academic institutions have implemented distance education programs, which involve delivering educational courses to students in schools and universities through television channels or electronic educational platforms (Abutayeh et al., 2024). Lessons or lectures are live-streamed and frequently re-aired. However, the significance of libraries has been proven by their provision of information resources and educational materials. The presence of these items is important for the education process to occur. The closure percentages ranged from implementing partial limits to full closure, leading library personnel to telecommute using the Internet. This posed challenges in devising methods to deliver services to communities without any defaults or disruptions to the system. Libraries serve as a repository of knowledge and have a significant obligation to meet and assist in fulfilling the information needs of the educational process to accomplish their goal and realize their vision. Amidst the pandemic, there is a growing recognition of the necessity to establish a comprehensive digital information repository that is equivalent in size to the physical inventories found in libraries. This repository aims to ensure that members of the community may easily access and profit from its contents. The American College and Research Libraries Association has prioritized the significance of acquiring services and access to information resources for students and scholars, regardless of their location (Crusaders, 2017). The purpose of this is to ensure parity so that individuals inside the distance education community possess the entitlement to access identical informational services and resources of the same caliber as those available on campus. The library is a crucial element of the university as it aims to collaborate with other components to successfully fulfill the university's policy, mission, vision, and objectives.

1.1   Research Problem

Due to the abrupt and total shift from traditional to electronic work caused by the pandemic, academic institutions are now aiming to include remote education in a manner that aligns with their policies and plans in the educational process. They are also aiming to include tools and techniques from the fields of information technology and educational technology to efficiently and effectively carry out the educational process with a high standard of quality. Academic libraries play a crucial role in supporting academic institutions by providing the necessary information resources and meeting the research needs of the community, which have expanded and become more varied due to digital advancements. Therefore, the majority of libraries have implemented a digital format in their processes for delivering services to the recipient population. Hence, the authors opted to investigate the actual level of assistance provided by these libraries for the distance education process, which involved implementing closures as precautionary steps to contain the transmission of the virus. Due to these closures, it was necessary to provide alternative access points in libraries to ensure that beneficiaries and students could still access academic and administrative resources. This was done to facilitate easy access to the relevant information for members of the beneficiary community.

1.2   Research Questions

Given the significant changes occurring in various aspects of everyday life and the closures caused by the widespread pandemic, which have impacted all sectors, including education, the research has centered around the following primary question:

What is the actual impact of academic libraries on improving the distance education process in Jordanian universities, as perceived by the beneficiaries, in the context of the pandemic?

In response to this inquiry, the two authors have endeavored to address the following sub-queries:

1. To what degree are the users of the academic library aware of its role in improving the remote education process?

2. What is the actual experience, as perceived by the beneficiaries, of how the academic library contributes to improving the remote education process during the pandemic?

3. What are the primary obstacles that beneficiaries have encountered while utilizing the academic library's services to fulfill their educational and research requirements during the pandemic-induced distance education process?

4. What advice can academic libraries provide to support the advancement of distance education?

1.3   Research Objectives

The research seeks to accomplish the following goals:

1. Assessing the level of awareness among beneficiaries regarding the academic library's contribution to improving the distance education process.

2. Examining the actual impact of the academic library in improving the remote education process during the epidemic, as seen by the beneficiaries.

3. Examining the difficulties encountered by beneficiaries in accessing and utilizing academic library services to fulfill their educational and research requirements during the pandemic-induced distance education period.

4. Offering suggestions to academic libraries on services that could improve the distance education process.

1.4   Research Significance

This research seeks to elucidate the actual impact of academic libraries in bolstering the online education process amidst the pandemic. The majority of nations have implemented health rules and norms aimed at preventing gatherings, and have embraced the notion of social separation. Curfews and closures were in effect temporarily. Universities, community colleges, and institutes have been obligated to implement distance education through the utilization of contemporary technologies and online educational platforms. Amidst this critical situation, the significance of the resources and services offered by libraries in terms of digital information has become evident for the community that benefits from them. Furthermore, this stage has uncovered the merits and drawbacks of these libraries, as well as the difficulties encountered by the community they serve. The reliance on digital resources has been absolute, with little to no utilization of the library's conventional collection.

The research's significance is further emphasized by its contribution to the limited body of literature on a fresh topic that has been explored by only a handful of scholars. The question of libraries and their involvement in supporting academic institutions and the educational process during the Pandemic is currently under consideration and requires greater inspection and inquiry.

1.5   Operational Definitions

Academic libraries: The buildings, or a group of information facilities, that are operated and financed by the administrations of universities, colleges, or various educational institutes, to provide information and services to members of the academic community in the educational institution consisting of students as well as teaching and administrative staff in these institutions (Curzon & Quiñónez-Skinner, 2015).

Information services: Information received by the beneficiary following the organization and technological processing of the information items in the library. The nature of these services is determined based on the requirements of the recipients and the information resources, human capabilities, and financial resources available to this library. There are two primary categories: traditional information services and non-traditional information services.

Online education: sometimes referred to as distant learning and e-learning, is a method of acquiring knowledge and skills remotely, without the need for physical presence in a traditional classroom setting. It is a contemporary educational approach that relies on the learner being physically present in a location other than the educational institution. Direct communication with the teacher or supervisor is not possible, and only alternate communication routes can be used (Simonson & Berg, 2022). This form of instruction has become widespread due to the rapid spread of the pandemic. It employs contemporary electronic methods to communicate with the educational source, while also adhering to health rules about social distancing and prohibiting gatherings, thereby restricting the spread of the pandemic.

1.6 Literature Review

Reviewing relevant literature has revealed a lack of studies on libraries and distance education during the pandemic which is considered to be a relatively new topic. Although there is a scarcity of relevant research conducted in the Arabic language, this review will examine studies from other countries that have addressed the subject to fulfill the set objectives. Kundo's (2021) research attempted to offer a comprehensive evaluation of how new technologies have influenced the change of information services in academic libraries throughout the Pandemic. This article examined the current state of academic libraries in India, including the opportunities and challenges they face. It emphasized the importance of technology in managing information and highlighted the need for library employees to possess technical skills to deliver high-quality services. The article also discussed the future potential of modern technologies in the post-pandemic era. According to Kundo's (2021) study, librarians must possess professional, social, psychological, and communication abilities to deliver new information services. It is necessary to transmit and distribute the information that the recipient community needs through digital publishing platforms (Abutayeh, 2024). This information is extensive and freely accessible. In a parallel investigation, Prihandoko (2021) focused on inadequate academic literacy proficiency encompassing information literacy and digital competence. The study revealed that students encountered obstacles in online learning during the Pandemic, particularly within the framework of 21st-century education. Proficiency in digital technology is a crucial aptitude. This research also emphasized the importance of the connection between proficiency in hardware and software, digital networking, digital security, mastery of digital development, and digital skills in information literacy. To accomplish the objective of the study, the researcher employed a random sampling method to pick a sample of 258 students who were enrolled in the academic writing program at the University of Papua. The findings indicated a positive correlation between digital proficiency and digital cooperation, digital security, and mastery of digital development. Simultaneously, proficiency in both hardware and software is directly correlated with successful digital collaboration. There is a positive correlation between digital competency and information literacy. The researcher provided a series of suggestions to the teaching staff and decision-makers.

It is important to remember that academic libraries have had special challenges during the pandemic, as they have had to adjust to the emergency. Consequently, numerous academics have been confronted with the transition in the educational process from conventional to digital formats. Al-Ghadian (2020) conducted a study to assess the educational experience of 628 students at Imam Muhammad bin Saud Islamic University who were using the e-learning system. These students were all residents of Riyadh. A random sample of 150 individuals was recruited, and 142 respondents completed the questionnaire. According to Al-Ghadian (2020), over half of the participants, specifically 52.8%, have limited familiarity with computers. Additionally, 66.6% of the respondents expressed the belief that e-learning tools at Imam Muhammad bin Saud University offer students the advantage of flexibility in terms of time and location during the learning process. Ahmed (2018) conducted a study titled "Utilization of Academic Libraries by Students Engaged in Distance

Education" which sought to determine the level of utilization of the college library by distance education students at the College of Education, Hasahisa.

The researcher employed the descriptive methodology. The findings revealed statistically significant variations in library utilization, attributable to the variable. Distance education students at the College of Education exhibit statistically significant variations in library usage based on their professional characteristics. The housing variable has a statistically significant impact on the use of information sources outside the library, leading to disparities in library usage. The study provided a series of suggestions. One significant aspect is to recognize the significance of the college library as an educational hub for the community. It is necessary to verify enhanced coordination and cooperation between the Deanship of Libraries Affairs and the Department of Distance Education in the college to enhance programs for community services. This includes uploading courses on the Internet and making them accessible to students.

Ibrahim (2017) attempts to ascertain the overarching notion of the information society and the specific function that academic libraries play within such societies. The researcher employed the documentary approach to accomplish the research objectives. This study uncovered several findings, with the most significant being that the primary function of academic libraries is to facilitate the dissemination of knowledge to researchers, catering to their diverse areas of expertise and requirements. Furthermore, it was determined that academic libraries play a central role in the educational process. The research also uncovered the patterns observed in academic libraries as a result of technology advancements. It highlighted their shift from the conventional format to the contemporary format following the integration of technological methods in all aspects of their operations, to align with the demands of the information society.

Crusaders (2017) conducted research to investigate the significance of academic libraries in university education, specifically focusing on the electronic library's contribution to supporting education at Palestine Technical University (Khadoorie). The researcher employed the descriptive research methodology and utilized a survey. Therefore, she administered a survey to a randomly selected group of 100 participants. The researcher's findings indicate that the electronic library played a significant role, contributing 77.93% towards supporting university education through its research and knowledge components. These findings align with the research conducted by Tabib and Siddiqui (2016), which aimed to demonstrate the impact of digital libraries on the academic success of university students. The study determined that university students utilized the information resources provided by the digital library, hence augmenting their knowledge and facilitating their learning process. The report also identified a series of obstacles confronting university students. The primary obstacles encountered were the physical and financial constraints, as well as the language barrier.

Kahlout (2014) emphasized the significance of academic libraries in Algeria and their impact on the enrichment of societal knowledge. The study determined that these libraries do not make a meaningful contribution to the knowledge society. This is due to outdated office work habits and inadequate administrative planning, which hinder the libraries' ability to meet the research demands of their users.

To assess the quality of information services offered by academic libraries in both public and private sectors, Al-Dahimat (2011) conducted a study to gauge the satisfaction of beneficiaries with the information services provided by official university libraries and private university libraries. A random sample of 1,268 respondents was used for the investigation. A questionnaire, serving as the data gathering tool, was delivered to them. The study revealed that there were statistically significant disparities in the caliber of electronic services, with public university libraries outperforming others. Equally significant is the research conducted by Nelson (2014), in which he built a roster of 19 developing universities at the national level. These universities were selected based on expert classifications in the field of higher education administration. Professionals were requested to identify establishments that are applying inventive concepts at the academic, faculty, and student community levels. This paper examined the distance education services and resources offered by libraries at rising universities to uncover novel concepts and patterns about the assistance of remote library users.

Chandhok and Babbar (2011) conducted a study to examine the viewpoints on mobile technology in remote education libraries. The study provided a framework for delivering digital resources and other information services to students at the Indira Gandhi National Open University in India using mobile technologies. The authors employed a questionnaire and interview instruments to gather data. The findings demonstrated that remote libraries offer a distinct advantage for those engaged in distant learning across various educational settings. Additionally, it proposed the preliminary development of the proposed library service architecture by creating the M-library website in the Indira Gandhi National Open University Library. This would effectively streamline library services and ultimately improve the learning experience in the distance education system.

2 Methodology

The authors employed a descriptive technique for the current investigation since it was well-suited to the research objectives and the nature of the study. The research tool utilized was a questionnaire comprising 19 items categorized into 3 primary aspects. First dimension: The level of knowledge among the recipients on the significance of academic libraries at universities, rated on a scale of 1 to 5. Second Dimension: The actuality of the academic library's function in facilitating the online education procedure during the pandemic (6–13). The third feature of this study focused on the primary difficulties and obstacles that beneficiaries have when using the academic library to fulfill their information requirements, specifically within the age range of 14 to 19. The study encompassed a description of the research population and its sample, an examination of the existing literature and past pertinent research, and the gathered data that were subjected to statistical analysis using the social sciences software package SPSS 25.

The study sample consisted of 1,567 faculty members and 50,600 students enrolled at the University of Jordan for the academic years 2019–2022. The research sample was selected by the utilization of the random sampling technique. A total of 1,458 persons participated in the computerized questionnaire. The sample consisted of 1,086 undergraduate students, accounting for 74.5% of the sample, 154 graduate students, accounting for 10.6%, 52 doctoral students, accounting for 7.1%, and 62 teaching staff members, accounting for 8.4% of the sample. In the academic year 2019/2020, the University of Jordan had a sample consisting of 54.1% females and 45.9% males across its academic and student bodies.

2.1 Research Tool And Analysis

To meet the research aims, a tool was developed to collect data on the actuality of academic libraries' support for distance education in the context of the pandemic, as perceived by teaching staff and students. Paragraphs are evaluated using the Likert Scale, where numerical values correspond to different levels of agreement: strongly agree = 5, agree = 4, neutral = 3, disagree = 2, strongly disagree = 1.

2.2 Validity And Reliability

The techniques conducted to establish the data-gathering tool and its evaluation by a panel of experts demonstrated the tool's validity. The reliability of the research tool was assessed by applying Cronbach's Alpha equation to calculate the overall dependability of its dimensions. The resulting value of 0.805 indicated a high level of reliability for the research.

Table 1. *Description of Participants in the Workshop*

(Parent-Child) and Teachers	Gender	Grade	First/Second session	Interviewed (Yes or No)
Pair 1	Mom, Boy	3	First session	Interviewed
Pair 2	Mom, 2 Boys	4	First session	Interviewed
Pair 3	Dad, Boy	6	Second session	Interviewed
Pair 4	Dad, Girl	5	Second session	Interviewed

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Pair 5	Mom, Girl	3	First session	Interviewed
Pair 6	Mom, Boy	4	First session	Interviewed
Pair 7	Mom, Boy	4	First session	Interviewed
Pair 8	Grandma, 2 Boys	5	Second session	Not Interviewed

Table 2. *Outline of the workshop*

Workshops/Content	Day	Time	Activity	Resources
Workshop 1	Day 1 Grades 3 & 4	1 hour 15 minutes	1. Symmetry activity	http://researchideas.ca/sym/s2/
Workshop 2	Day 2 Grades 5 & 6	1 hour 15 minutes	2. Sphero 3. Scratch program	https://scratch.mit.edu/projects/editor

3   Findings

The present study examined the findings of a questionnaire that focused on the improvement of academic libraries for remote education in Jordanian universities during the 2019/2020 academic year. The results encompassed four primary dimensions: firstly, the data of the research sample; secondly, the level of awareness within the beneficiary community regarding the role of academic libraries in universities; thirdly, the actual contribution of academic libraries in facilitating distance education during the pandemic; and fourthly, the significant issues and obstacles encountered by beneficiaries when utilizing academic libraries to fulfill their information requirements, as outlined below.

A total of 2000 questionnaires were issued to a randomly selected sample of students at the bachelor's, master's, and Ph.D. levels, as well as a group of academics. A total of 1,458 questionnaires were collected, resulting in a response rate of 72.9%. The research sample comprised 44.2% males and 55.8% females, with respect to gender. The distribution of the sample by age was as follows: Among individuals aged 18–22, the frequency was 883, representing 60.6% of the total. Among individuals aged 23–27, the frequency was 219, corresponding to a proportion of 15%. Within the age range of 28–32, the occurrence was 141, representing a proportion of 9.7%. Within the age range of 33–37, there were 60 occurrences, accounting for 4.1% of the total. Within the age range of 38–42, there were 27 occurrences, representing a proportion of 1.9%. Among individuals aged 43 and above, the frequency was 128, corresponding to a percentage of 8.8%.

The sample analysis results were as follows, based on the field of specialization: The humanities fields had a frequency of 281, accounting for 19.3% of the total. The field of educational sciences had a frequency of 474, accounting for 32.5% of the total. The field of medical sciences had a frequency of 228, accounting for 15.6% of the total. The field of engineering sciences had a frequency of 203 or 13.9% of the total. The disciplines of economics and business administration had a frequency of 272, accounting for 18.7% of the total.

The sample distribution was categorized based on the nature of work as follows: The number of students at the bachelor's level was 1,103, accounting for 75.7% of the total. The number of students at the Master's level was 163, accounting for 11.2% of the total. The number of students at the Ph.D. level was 92, accounting for 6.3% of the total. The teaching personnel had a frequency of 100, representing 6.9% of the total.

To assess the level of knowledge within the beneficiary community regarding the academic library's contribution to improving the remote education process, the writers allocated five

paragraphs to the initial aspect. For each paragraph of the tool, frequencies, arithmetic mean, percentages, and standard deviation were computed based on the respondents' responses.

The authors categorized the score gradations in the following manner: The range of values from 0 to 20% is classified as extremely low, from 21 to 40% as low, from 41 to 60% as medium, from 61 to 80% as high, and from 81 to 100% as very high. The acquired results are as follows:

Table 3. *Frequency, arithmetic mean, percentage, and standard deviation of the paragraphs of the dimension of awareness of the beneficiary community of the academic library's role in enhancing the distance education process*

S	The awareness of the beneficiary community of the role of the library in enhancing the distance education process	Frequency	Arithmetic mean	Percentage	Standard deviation	Score
1	Having a clear idea of the role of the library in enhancing the educational process	1449	3.35	67.04%	.96	High
2	Libraries have an important role in providing information resources that meet the research needs of the beneficiary community	1458	3.98	79.6%	.63	High
3	Libraries have an important role in providing information services that meet the needs of the beneficiary community	1456	3.17	63.54%	1.05	High
4	Libraries make their digital content available to the beneficiary community	1456	3.18	63.76%	1.07	High
5	Libraries provide interactive platforms to receive inquiries and suggestions	1430	3.75	75.12%	.61	High

The previous table clearly indicates that the arithmetic averages of the paragraphs in the first dimension, which pertain to the beneficiaries' opinion of the library's role in improving distance education, were all high. The highest proportion recorded was 79.6% of the sample. This statement is connected to the paragraph that states: Academic libraries play a crucial role in supplying the essential information resources for the community they serve. The standard deviation for this was 0.63558. Out of all the respondents, a majority of 67.04% expressed confidence in their understanding of the academic library. The standard deviation for this data was calculated to be 0.96216. The data indicates that 63.54% of the sample population recognizes the essential function of academic libraries in delivering information services to the beneficiary community. Out of all the participants, 63.76% expressed the belief that the academic library plays a crucial role in providing remote access to its academic glossaries for the general public. The percentage of respondents who utilized the interactive platforms for inquiries and ideas was 75.12%, with an arithmetic mean of 3.759.

The respondents allocated eight lines to explore the aspect of ascertaining the actual impact of the academic library's part in augmenting the online education process amidst the Pandemic. For each paragraph of the tool, frequencies, arithmetic mean, percentages, and standard deviation were computed for the respondents' responses.

Table 4. *Frequency, arithmetic mean, percentage, and standard deviation for paragraphs of the dimension of the reality of the academic library's role in enhancing the distance education process during the pandemic period*

S	The reality of the library's role in enhancing the distance education process during the pandemic period	Frequency	Arithmetic mean	Percentage	Standard deviation	Score
1	The library provided platforms for the digital information materials needed by the researchers	1445	1.96	39.25%	.48	Low

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2	The library provided an eBook borrowing service during the pandemic	1445	1.88	37.73%	.76	Low
3	The library organized virtual events to encourage online reading	1458	1.94	38.8%	.51	Low
4	The library provided access to its community of patrons from outside the university network to the databases to which it subscribes to	1445	1.88	37.73%	.76	Low
5	The library disregarded the return of physical books due to the sudden pandemic	1444	3.88	77.64%	.42	High
6	The library provided a guide to the beneficiary community on how to use its electronic facilities	1442	3.8551	77.1%	.51	High
7	The library promoted its digital content through its website and social media	1447	2.77	55.5%	.91	Medium
8	The library made an evaluation model for the quality of its services provided to the beneficiary community during the pandemic	1444	3.88	77.64%	.42	High

The preceding table makes it evident that the percentages of paragraphs on the second dimension—which deals with the academic library's actual role in putting alternative plans into action to offer minimal services and to improve distance learning during the pandemic—varied between high and medium. The paragraph that claimed the academic library had employed an evaluation model for the services offered to the beneficiary community had the highest percentage, which was 77.64%. The arithmetic mean for this paragraph was 3.8823. The paragraph indicating that the academic library offered guidance to the beneficiary population on utilizing electronic resources had a proportion of 77.1%, with a standard deviation of 0.50584. The proportion of the paragraph indicating that the academic library advertised its digital resources through its website and social networking sites was merely 55.5% of the entire sample, with a standard deviation of 0.91414. The paragraph mentions the possibility of members of the beneficiary community accessing databases from outside the university network just 37.73% of the time. This figure has a standard deviation of 0.76333 and an arithmetic mean of 1.8865. The percentage for the paragraph mentioning the library's provision of virtual activities to promote online reading was relatively low, at 38.8%. The arithmetic mean for this percentage was 1.9403, with a standard deviation of 0.51.

The authors allocated six paragraphs to this aspect to elucidate the obstacles and complexities encountered by the respondents when they turned to the academic library to fulfill their research and educational requirements amidst the Pandemic. The frequencies, arithmetic mean, percentages, and standard deviation were computed for the respondents' responses in each paragraph of the instrument.

Table 5. *Frequency, arithmetic mean, percentage, and standard deviation for paragraphs in the dimension of challenges that faced the beneficiary community when benefiting from information services during the pandemic period*

S	The challenges facing the beneficiary community when resorting to the library in the distance education process during the pandemic period	Frequency	Arithmetic mean	Percentage	Standard deviation	Score
1	Limited access to scientific articles in the databases that the library subscribes to	1398	3.41	68.3%	.98	High

2	The library's lack of electronic information inventory	1383	3.37	67.5%	.96	High
3	Not providing remote information services	1404	3.41	68.%	.96	High
4	Difficulty communicating with library staff	1430	3.75	75.1%	.61	High
5	Technical and technological problems with the library website	1398	2.23	44.7%	.65	Medium
6	The inflexibility of the regulations and instructions for providing service in the library	1458	1.94	38.8%	.51	Low

As can be seen from the preceding table, there was a range of high, medium, and low percentages of paragraphs on the second dimension, which dealt with the academic library's actual role in implementing alternative plans to provide minimum services and in enhancing distance education during the pandemic. The paragraph that claimed the academic library had employed an evaluation model for the services offered to the beneficiary community had the highest percentage, which was 77.64%. The arithmetic mean for this paragraph was 3.8823. The paragraph indicating that the academic library offered guidance to the beneficiary population on utilizing electronic resources had a proportion of 77.1%, with a standard deviation of 0.50584. The proportion of the paragraph indicating that the academic library advertised its digital resources through its website and social networking sites was merely 55.5% of the entire sample, with a standard deviation of 0.91414. The paragraph mentions the possibility of members of the beneficiary community accessing databases from outside the university network just 37.73% of the time. This figure has a standard deviation of 0.76333 and an arithmetic mean of 1.8865. The percentage for the paragraph mentioning the library's provision of virtual activities to promote online reading was relatively low, at 38.8%. The arithmetic mean for this percentage was 1.9403, with a standard deviation of 0.51.

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4   Discussions

The research findings revealed a distinct discrepancy between the beneficiaries' impression of the library's involvement in improving the remote education process and the actual level of help offered by the library. The results of perception demonstrated elevated scores, suggesting that beneficiaries held a favorable perspective of the library's prospective function. Nevertheless, the actual amount of assistance provided by the library for remote education was determined to be ordinary, scoring an overall support level of 65.204%.

An important result of the study was the recognition of difficulties encountered by recipients in effectively utilizing the library to fulfill their educational requirements from a distance. This finding contradicts the findings of Al-Ghadian (2020), Karsoo (2017), and Al-Dhaimat (2011), but is consistent with the findings of Kundo (2021), who also observed comparable concerns.

The survey found that academic libraries offered only moderate and minimal degrees of assistance for distance education. These libraries failed to effectively utilize contemporary technologies to improve their digital content, especially on their websites and social media platforms, which are widely used by the community. In addition, academic libraries did not successfully adopt alternate ways to guarantee a basic level of service during the pandemic. This study supports the findings of Kundo (2021), who underlined that librarians should effectively and inclusively distribute important information through electronic channels, utilizing all available modern technology.

In addition, the research revealed that a mere 38% of recipients were able to remotely access the databases, thereby emphasizing a notable problem with accessibility. The virtual activities offered by the library to promote reading were subject to the same low proportion. Furthermore, a

significant deficiency in effective contact with beneficiaries was observed, as 67% of respondents confirmed an inadequate digital inventory to adequately fulfill their academic and research requirements. This deficiency in resources and communication highlights a crucial aspect that requires significant enhancement.

Another significant problem that was noticed was the absence of user interaction and interactivity. The academic libraries lacked sufficient mechanisms for users to engage with library services, a crucial aspect in a remote learning setting. The lack of virtual reference services, online consultations, and interactive webinars resulted in users having to depend on their own resources to find information, causing annoyance and inefficiency.

Moreover, the study emphasized that although there were adaptable instructions and rules in place throughout the epidemic, the implementation of these policies was not as efficient as it could have been. A significant number of recipients perceived that the policies were inadequately conveyed or inconsistently implemented, exacerbating the challenges in obtaining library services.

The results indicated that university libraries should reconsider their approaches to assist online education. This encompasses allocating resources towards technological advancements to enhance the distribution of digital information, improving accessibility to subscriber databases, and developing interactive virtual activities that foster reading and learning. In addition, libraries should prioritize enhancing contact with patrons by building strong online interaction platforms and ensuring that policies are clear and consistently enforced.

The authors suggest that future research should investigate certain technology solutions and user engagement tactics that can improve the function of academic libraries in distance education. Peer research could analyze the most effective strategies used by libraries that have effectively dealt with the difficulties caused by the pandemic. This research could offer a clear plan for libraries that want to enhance their assistance for students learning remotely.

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