Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Academic libraries' leaders' decision-making during the COVID-19 crisis

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A B S T R A C T

During the COVID-19 crisis, leaders of academic libraries had to make various decisions to retain library relevance and maintain essential services. The COVID-19 crisis raised the question of libraries' value to their universities more than ever. Libraries were facing financial difficulties but also operational challenges due to the services built around physical libraries. This paper uses a mixed methods approach to investigate academic library leaders' decision-making during the first year of the COVID-19 crisis. It combines quantitative and qualitative data from previous studies with primary data collected by the author to determine what kind of decisions university library leaders faced during the crisis and why. These studies show that leaders were concerned about the following main challenges: lack of access to physical services and collections, the safety of staff and patrons, new ways of working, and the library's role during the crisis. The results show that library leaders made decisions in smaller groups or some cases, individually due to the lack of time or information. While there have been numerous studies on libraries' response to the COVID-19 crisis in the past three years, this paper focuses mainly on academic library leaders and their decision-making to solve the crisis for their libraries.

Introduction

"What sets leaders apart are the way they handle challenging situations, especially during a pandemic."

(Dirani et al., 2020, p. 384)

Often public sector and especially memory institutions are overlooked in crisis research; however, the libraries' crisis management research is not unknown. Previous research shows that economic and financial crises are the most researched type of crises in libraries. Before 2020, the health crisis in libraries was among the least researched topics. The research shows that libraries have disaster plans for potential physical harm to collections (fire, water, or natural disasters like hurricanes) and usually focus on small-scale disasters, but often an action plan in the case of an immediate shutdown is lacking. While the prior research focuses on preparations and response to the crisis in libraries (Akhshik & Beglou, 2023), the focus is not on libraries' leadership.

Academic libraries and their leaders deserve more attention in crisis because of their position within a larger organization (university) and their research-related activities, which make them unique institutions. The COVID-19 crisis forced many libraries to abandon at least parts of their long-term strategy and traditional ways of planning because these became irrelevant (Shaghaei et al., 2022). It can also be argued that the

COVID-19 crisis was unique for academic libraries because of various reasons: first, academic libraries depend on the strategy and decisions of their universities (Louderback, 2021); second, before the crisis, academic libraries were still focused on services offered in a physical building and a readiness to switch over to digital services was not fully achievable (Ashiq et al., 2022; Kumar, 2022); third, the COVID-19 situation had too many unknown factors. Often clear instructions and recommendations from national governments or universities were delayed or inadequate for libraries, putting academic libraries on hold in their decision-making or inventing new policies (Tolppanen, 2021).

When the COVID-19 crisis hit in early 2020, libraries and other organizations faced difficulties and were required to adjust to the new normality. In a normal situation, "the library's challenges mainly fall under four major categories, such as human and infrastructural challenges, workplace anxiety and stress, infodemic and changed information seeking behavior, and leadership and planning, respectively." (Ashiq et al., 2022, p.9). They were not well prepared for a crisis in this amplitude. (Reed et al., 2022) Despite this, libraries took various actions and made different adjustments as well as complex changes.

Since COVID-19 has been a crisis in magnitude that is extremely rare, various surveys around the world were immediately performed to find out how organizations, including libraries, responded to the crisis. The current paper explores how academic library leaders reacted to the

COVID-19 crisis and compares these reactions in Europe and the United States.

All studies used in this paper investigated academic libraries' current and future priorities and strategies and how the COVID-19 crisis influenced and changed these. In this paper, "strategic" change looks at a change that "involves substantive change beyond the normal routines of the organizations." (Rao et al., 2009, p. 461). These strategic changes made during the COVID-19 crisis have had long-term consequences on the general strategic directions in many academic libraries. It is also interesting to understand if library leaders faced new challenges while deciding how to reach these strategic decisions and if the decision-making process in the crisis changed. Based on that, the article proposes the following research questions:

RQ 1: What strategic changes did academic libraries make during the COVID-19 crisis?

RQ 2: How does the leaders' decision-making in academic libraries change during the crisis?

To achieve these challenges, this paper investigates five studies in detail and compares the results to determine if the actions were similar. Four mainly quantitative survey results are compared with a part of the author's qualitative research on strategic decision-making in European academic libraries, consisting of interviews with LIBER library directors. Part of this study, which investigates decision-making during crisis situations, is included in this article. The focus of the article is on leadership decisions during a crisis. Since academic libraries and their leaders' decision-making in crisis are not yet thoroughly researched, this research significantly contributes to the academic libraries' crisis decision-making research by combining quantitative and qualitative as well as primary and secondary data.

Leaders' decision-making during a crisis

During a crisis, leadership plays a crucial role in successfully responding. A crisis tends to be most devastating to an organization's human resources, especially concerning a health crisis like COVID-19. During the pandemic, staff members' safety (both physical and mental) became one of the most burning matters. A crisis demands from a leader some risk-taking and fast decision-making. Decisions in an emergency often depend on three aspects: time constraints, limited information, and load constraint (Cosgrave, 1996). At the same time, fast decisions can affect the quality of the decision and the team's dynamics. Previous studies have shown that the success of decisions made in a hurry depends on the environmental conditions, so it may work at certain times and may not be suitable for others. In times of uncertainty and ambiguity, leaders are often forced to improvise and respond quickly (Heavey et al., 2009; Shepherd et al., 2021).

Leaders' ability to successfully manage crises and decide with certainty while being flexible and adaptable is critical. A crisis can be helpful for goal-driven and strategic leaders because it allows them to see new opportunities and find innovation opportunities. (Dirani et al., 2020) It may also require abandoning regular types of decision hierarchy and adopting shared or distributed leadership (Frederick & Wolff-Eisenberg, 2020a, 2020b; Kezar & Holcombe, 2017; Lawton-Misra & Pretorius, 2021). Distributed leadership may help leaders solve unknown problems and face challenges. While during a crisis, a leader needs to be decisive and quick, knowing the organization's priorities; however, they benefit from utilizing their team members and their skills to develop a plan for crisis management. (Dirani et al., 2020) Shared leadership and collaboration during turbulent times can also improve team morale, boost motivation, and help the organization overcome the crisis (Kezar & Holcombe, 2017; Klimczak et al., 2020).

Vroom and Yetton proposed a decision model where the leader considers the importance and consequences before involving subordinates in decision-making (1973). They suggest that the model can be used in a situation where a leader needs to decide if the decision must be made alone or should a group of people be involved. In addition, it helps to determine to what extent a group should be involved in the decision-making process (Vignesh, 2020; Vroom & Jago, 1995). While the Vroom-Yetton computational model, with its decision tree, may not necessarily be the most suitable choice for crises and emergencies (Cosgrave, 1996), it gives a good background on library leaders' crisis management. This model helps to look at academic library leaders' decision types and their decisions regarding group involvement in crisis decision-making.

Some researchers have noticed that the COVID-19 crisis has given leaders a unique situation that may happen once during their lifetime; hence, they argue that previous leadership theories may only be partially applicable. In addition, since leading during a crisis cannot be planned and prior experience may not be comparable to lessons from previous challenges, leaders need to be adaptable and capable of learning new skills on the go. They need to take certain risks in times of uncertainty. (Lawton-Misra & Pretorius, 2021; Shah, 2020).

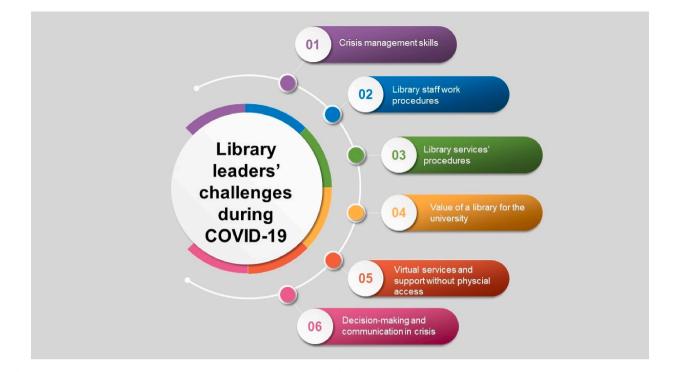### Library leadership challenges during the COVID-19 crisis

The COVID-19 situation brought out various challenges and critical aspects of libraries' leadership crisis management which can be divided into six larger categories (Graph 1).

First, inadequate **crisis management skills** of leaders and library staff. "The skillsets that make a library leader effective under normal circumstances could serve as impairments in a crisis because many lack the abilities, experience, and knowledge necessary to guide their library through crisis events." (Newman, 2021, p.1.). One skillset that became crucial for library directors during the crisis was change management skills (Frederick & Wolff-Eisenberg, 2020a, 2020b). Technological and virtual collaboration skills became essential for all library staff, not just leaders (Pryce et al., 2021; Tsekea & Chigwada, 2020).

Second, unsatisfactory distant **work procedures**. Often crisis requires new procedures which have yet to be well established (Tolppanen, 2021). One of the strategic changes that most organizations, including libraries, were forced to make during the COVID-19 crisis was distance working. According to the survey conducted by Hosoi et al. (2021), before the COVID-19 crisis, 74 % of academic library staff worked on-site. In general, libraries lacked strategies for distance work before the pandemic (Pryce et al., 2021) because libraries' work procedures are typically built around physical library buildings. One of the LIBER Leadership survey respondents (2020) illustrates it by saying: "Some aspects of what give our profession sense are truly challenged by this crisis: the library as a meeting place where we can feel like being at home. The library as a place for physical interactions. The library as a place for Cultural events." (LIBER, 2020b).

A crisis often brings out weaknesses in work procedures or systems, giving opportunities not only to change during the period of crisis but to look through existing ways of operating. (Newman, 2021). Academic libraries are generally considered organizations behind "iron cages," which are not eager to change their procedures and ways of operating. (Jantz, 2017) Their willingness to transform their operations requires a strong and innovative leader who can take advantage of an opportunity. (Lembinen, 2021). The COVID-19 crisis allowed academic libraries to develop procedures and processes for the future crisis. It prepares library staff and patrons for future uncertain situations. It offers "a sense of predictability in the face of uncertainty." (Eberth, 2021, p. 5).

Third, **services and procedures** are built mainly around physical buildings. The "digital shift" in libraries was already happening before COVID-19 (Greenhall, 2020); however, the pandemic put it on the central stage and accelerated it (Kennedy, 2020). Some libraries have already started before the crisis to move some of their procedures to cloud-based systems allowing staff to offer remote services (Connell et al., 2021). Various international library associations, like American Research Libraries (ARL), urged publishers to open up access to digital research content, which usually is behind a paywall. (Aiwuyor, 2020) Before COVID-19, for many students, the library was a physical building;

Graph 1. Library leaders' challenges during the COVID-19 crisis (compiled by the author based on Newman, 2021; Frederick & Wolff-Eisenberg, 2020a, 2020b; Pryce et al., 2021; Tsekea & Chigwada, 2020; Hosoi et al., 2021; Greenhall, 2020; Aiwuyor, 2020; Connaway, 2020; Ashiq et al., 2022; De Groote & Scoulas, 2021; Connell et al., 2021; Temiz & Salelkar, 2020).

the pandemic has shown that libraries need to quickly update and enhance their services and digital content to show that libraries are necessary for improving the study experience – "a new model library." (Connaway, 2020) For example, how to move physical services to entirely online or organize book lending when physical contact is impossible.

Fourth, the COVID-19 crisis brought out more than ever the question about the **value of academic libraries**. The library relevance discussion has been going on for years (Tenopir, 2010); however, it became even more urgent during the crisis (Deol & Brar, 2021). The Ithaka S + R US Library Survey from 2019 showed that the primary concern for academic libraries' directors was the decreasing value of the library and its functions in the eyes of the university and higher education leaders (Frederick & Wolff-Eisenberg, 2020a). Similar worries were also shown by the leaders of LIBER libraries who responded to the COVID-19 survey; 25,25 % of the respondents showed concern about redefining the library's role within the university (LIBER, 2020a, 2020b). The crisis gave an excellent chance for academic libraries to demonstrate their value to the university by adapting their services based on the needs of the university. "This pandemic provided an opportunity for libraries to invest in and improve the library's value." (Ashiq et al., 2022, p. 8).

Fifth, one of the significant changes that all academic libraries had to tackle during the COVID-19 crisis was how to **provide support virtually** to university teaching staff and students. While many libraries saw an increase in their virtual services (De Groote & Scoulas, 2021), especially in virtual communication with library staff, services that were linked to physical collections saw a decrease in usage (like library catalogs, websites) (Connell et al., 2021). Most teaching-learning activities also moved online, so libraries had to find ways to change their virtual services and provide access to physical collections by digitizing them or replacing them with digital collections (Kang et al., 2022; Pryce et al., 2021). Research in Swedish libraries showed the need for libraries to "digitalize their existing services, add new digital services," and find ways to introduce new technology like AI and the staff who can handle this new technology (Temiz & Salelkar, 2020, p. 373).

COVID-19 studies in academic libraries

Data and method

This study uses a mixed methods approach. The study consists of four surveys (Table 1) held during the first year of COVID-19 and a qualitative study among academic library directors held by the author. Three surveys were quantitative, one was mixed (Leadership), and one was entirely a qualitative study. Two studies were held in the United States and three in Europe. These studies were selected because significant library associations conducted them: American Library Association (U.S.) and LIBER (Ligue des Bibliothèques Européennes de Recherche – Association of European Research Libraries) which is the largest European researcher libraries association in Europe. They covered a more extensive selection of academic libraries, not focusing on just a few individual libraries. The results of the four surveys are compared to the author's qualitative study among LIBER library directors to investigate similarities and differences in crisis management of academic libraries. Surveys data is either public data or permission to use the data for this paper was granted from the survey administrators. Data comes in two formats: survey results in the form of raw data and secondary data, which includes reports of these studies. This study compared quantitative and qualitative research responses to find 1) similarities and differences between academic libraries' decisions in the crisis and 2) to validate and enrich previous quantitative findings with qualitative insights.

Combining qualitative and quantitative as well as primary and secondary data gives some advantages: 1) it adds a deeper understanding of how decisions were made during the crisis in academic libraries, not just by looking at the data (which shows what changes were made) but also gives an idea how libraries come to make these changes. 2) The author alone would not have been capable of researching hundreds of academic library leaders. Still, combining various research gives a broader picture of what happened in academic libraries during the greatest crisis in past decades.

When interpreting the results, the following facts need to be

Table 1
A comparative study (compiled by the author).

	Ithaka S + R US Library Survey (Ithaka)	The American Libraries Association (ALA)	LIBER COVID-19 crisis study (LIBER)	LIBER leadership study (Leadership)	A study among LIBER academic library directors (by the author) (Directors)
Time	March 2020	May 2020	16 October–23 November 2020	Nov.–Dec. 2020	2017–2022
Sample	638 US academic library directors	All U.S. library types	298 European librarians	24 LIBER library leaders	19 LIBER academic library directors
Topic	Library leaders' priorities and strategies during the COVID-19 crisis	Libraries Response to COVID-19	LIBER libraries response to COVID-19	COVID-19 impact on library leadership and strategy	Strategic decision-making, including in crisis
Type of study	Quantitative survey	Quantitative survey	A quantitative survey with open-ended questions	Mixed survey	Qualitative study
Data Type	Secondary data	Primary and secondary data	Primary and secondary data	Primary and secondary data	Primary data
RQ	RQ1	RQ1	RQ1 and 2	RQ 1 and 2	RQ2
Report/ data	https://sr.ithaka.org/publications/academic-library-strategy-and-budgeting-during-the-covid-19-pandemic/	https://www.ala.org/tools/covid/libraries-respond-covid-19-survey	https://libereurope.eu/wp-content/uploads/2020/12/Covid-19-Report-December-2020.pdf	doi: 10.53377/lq.10930	Anonymized data will be published in 2023 http://datadoi.ee

considered: 1) U.S. and European library funding systems are different (in many European countries, education is free or partially supported by the government). 2) The library status within the university is different in the U.S. and Europe, which can influence decision procedures. 3) There are more different types of universities in U.S. than in Europe.

Ithaka S + R COVID-19 (**Ithaka**) survey of library directors took place in March 2020. The survey's main goal was to investigate what strategic changes academic libraries had to implement since the beginning of the pandemic. The survey focused on library decision-making and leadership. In total, 638 library directors from the United States responded to the study. The study used multiple-choice questions. (Frederick & Wolff-Eisenberg, 2020a, 2020b).

The American Libraries Association (**ALA**) organized the survey "Libraries Respond: COVID-19 Survey " between 12 and 18 May 2020. The survey target group was all library types, with public, academic, and K-12 libraries representing most respondents. Out of 3850 respondents, 20 % were from academic libraries. For academic libraries, **only the financial aspect** was included in this study; for that, primary data publicly available on the ALA website was used (ALA, 2020). ALA survey looked at the current status and 12 months of future predictions and used multiple choice questions.

The third survey was organized by the Association of European Research Libraries (**LIBER**) in October 2020. The survey was launched in the LIBER network on 19 October. The survey had two purposes: to understand better European research libraries' situation and how LIBER can support member libraries during COVID-19. In total, 31 countries and 298 people participated in the survey. 72,87 % of the participants were from an academic library. The survey consisted of 33 questions about the library's status, quality of existing services, new services, digital services, budget cuts, and issues libraries had to deal with during COVID-19. The author also had access to primary data with the permission of LIBER.

LIBER also administrated the fourth survey among participants of two webinars held in November 2020 (**Leadership**). The survey aimed to discover how research library directors could become more resilient after the COVID-19 pandemic by exploring library leaders´ experiences and perceptions of the crisis and potential future scenarios. The survey followed two prior webinars, "How are Research Libraries leading through COVID-19?" and "New challenges and leading into the post-COVID Recovery for Research Libraries." Participants of the webinars were library top leaders who also were the main target group of the survey. The mixed-method survey contained a few multiple-choice questions followed by open-ended ones. In total, 24 respondents filled out the survey. The research team quantitatively analyzed the results (Shaghaei et al., 2022). The author had access to primary data with the permission of LIBER.

In the case of LIBER surveys, most libraries were academic or

research libraries, while on the ALA survey, all types of libraries were included. On the financial changes influenced by the crisis, it is possible to separate academic libraries in the ALA survey.

The author interviewed 19 LIBER academic library directors between 2017 and 2022 about their strategic decision-making (**Directors**). 11 directors out of 19 were interviewed after the beginning of COVID-19 (2020–2022). One part of the interview explored decision-making in crisis. The author asked the library directors if the crisis changed the way they decided and if they took a different approach compared to a typical stress-free situation. Participants had to answer two questions: 1) How does the importance and intensity of the situation affect their decision-making process? 2) Does deciding in a crisis differ from regular decision-making?

Data analysis

In the data analysis, quantitative and qualitative data were analyzed separately. Data from these five studies were looked at in three steps: 1) results from published reports on all four surveys; 2) quantitative data and their analysis provided by surveys' administrators, followed by question-to-question content analysis; 3) qualitative data analysis in Leadership and Directors' studies used the coding method.

In the quantitative surveys, all questions were looked through and compared to other questions, looking for similarities: budget reallocation (services, digitalization, print collections). For example, in the LIBER survey, the question "Have you had to redirect expenses towards digital services or content?" were combined with the ALA survey's question "What financial changes the library made in response to the crisis to date? Print collection budget" and from Ithaka survey "Which of the following statements best describes your role in making decisions for the library in each of the following areas during the COVID-19 pandemic?" where the option was "Allocating funds or budget cuts to collections and/or operations". Health-related questions were, for example following: Ithaka survey "How important have each of the following activities been to date in planning for library operations and services during the COVID-19 pandemic?" with the answer option: "protecting the health and well-being of library employees", LIBER survey asked: "Which of the following aspects of the crisis do you worry about the most?", answer "Health and safety of staff." Not all quantitative questions are reflected in this paper. Responses from four quantitative studies were mainly used for answering research question 1 (which strategic changes academic libraries mainly implemented during COVID-19).

In the qualitative studies, participants' responses to both studies were thematically analyzed. Answers from transcripts were combined under larger themes. The primary purpose of collecting qualitative data was to illustrate the quantitative data collected through previous studies, so the

theme and content of the qualitative data were used to illustrate the crisis decision-making. Direct quotations were mainly used from these two qualitative surveys. Two qualitative studies were mainly used to answer research question 2 (how academic library directors decided during the crisis).

Key findings

RQ1 – strategic changes in libraries during the COVID-19 crisis

The study shows that academic libraries in U.S. and Europe did following strategic changes due to the COVID-19 crisis (Table 2):

First, budget allocations – more funding is now given to digital resources. In the U.S., new online streaming media entered library budgets (5 %), and budget allocations to physical books decreased - 52 % of ALA libraries either eliminated or reduced their print collection budget. (Frederick & Wolff-Eisenberg, 2020a, 2020b; ALA, 2020). In Europe, 55,61 % of libraries have allocated their budget to digital collections and licenses, and 45.81 % have redirected their budget to accommodate more digital services. (LIBER, 2020a, 2020b).

Second, the budget cuts during the COVID-19 crisis showed that 75 % of U.S. libraries faced general budget cuts, while only 15,12 % of European libraries had to deal with budget cuts during the first COVID-19 year (Frederick & Wolff-Eisenberg, 2020a, 2020b; LIBER, 2020a, 2020b). The European libraries expect the budget cuts to continue in the upcoming year. In the United States, doctoral universities received the deepest staff budget cuts compared to smaller universities, according to the Ithaka S + R survey. There are also differences between public and private institutions (Frederick & Wolff-Eisenberg, 2020a, 2020b); based on European research, this cannot be said because of no differentiation in research libraries.

The budget cuts also influenced staff reduction (in the form of a hire or salary freeze, or staff downsizing). Most staff cuts affected physical library staff because almost all libraries were closed at least some point during the crisis (for example, access and technical services, cataloging, and facility operation). In the U.S., staff budget cuts were between 36 and 59 %, while the salary cut happened in 11 % of libraries (Frederick & Wolff-Eisenberg, 2020a, 2020b; ALA, 2020). In addition, 56 % of respondents eliminated or reduced new hires. (ALA, 2020) The Ithaka survey focused on staff budget cuts and their limitations – unionization and faculty status – limiting the possibility of cutting staff. In Europe, one of the respondents admitted that in their country, libraries are: "facing budget cuts, recruitment freezes (having already lost staff to voluntary severance or redundancy schemes) and challenges related to training redeployed staff while working remotely." (LIBER, 2020a, 2020b).

Third, the value of the library increased through digital services: in the U.S., 86 % of the directors said that they stress establishing library service as a valuable and vital service for the university (Frederick & Wolff-Eisenberg, 2020a, 2020b). In Europe, 37,32 % of libraries increased their digital services because of COVID-19, and over 17 % of respondents confirmed that they now have new digital services which they could not offer before (LIBER, 2020a, 2020b). 30 % of respondents admitted that digitalization is the new normal for academic libraries (LIBER, 2020b). Library directors feel that libraries have shown their value during the crisis through their readiness to offer virtual support services for the university staff and students. One of the Leadership survey respondents brought an example: "The coronavirus crisis added hybrid learning which was not part of the plan before. We are trying to see how we can offer places within the library for hybrid lecture participation." (LIBER, 2020b). Expected increases in the offer of these types of digital services have been expected before the crisis because investments in technology have been a large part of libraries' budgets for years (Shaghaei et al., 2022).

Fourth, the library staff's well-being during the crisis became one of the priorities for library leaders. 97 % of U.S. and 70.79 % of European respondents confirm this (Frederick & Wolff-Eisenberg, 2020a, 2020b;

Table 2

COVID-19-related changes in academic libraries (compiled by the author).

Changes in academic libraries during COVID-19	Resource	Quantitative data	Qualitative data
Budget redirection due to COVID-19	Ithaka	33–57 %	
	ALA	48 %	
	LIBER 2020	45,81 %	
	Leadership		"The efforts made to invest in digital resources have been successful during the lockdown."
Increase of digital services, priority on online and hybrid teaching	Ithaka	Over 80 %	
	LIBER 2020	37,20 %	
	Leadership	30 %	1) "We've been able to provide our services in different ways according to different restrictions." 2) "Thrust of digitization and thus of networked working". 3) "We are trying to see how we can offer places within the library for hybrid lecture participation." 4) "Provided more eBooks"
	Directors		"We've been innovative in the library with in adapting the services and the collections and the spaces to the new normal of the COVID-19"
Adding new digital services	Leadership		1) "We started to support e-learning". 2) "New digital services (scan and deliver, library learning and teaching online)"
	LIBER 2020	54,5 %	
General budget cuts or reduction	Ithaka	75 % (63 % collection budget)	
	LIBER 2020	15.12 %	
	ALA	52 % print collection budget	
Staff-related budget cuts (salaries/ training/new hires)	Ithaka	59 % (higher for some academic library types); 63 % new hires/43 % salaries	
	ALA	11 %/salaries; 52 % training; 56 % new hires/36 % staffing	
Staff well-being/ health/safety	Ithaka	97 %	
	LIBER 2020	70,79 %	
	Leadership	Priority	"Had to de-prioritize our front-facing physical services due to staff welfare and public guidelines."
	Directors		"For example, pandemic (2020) when we were to first quarantined, we had to make decisions very quickly (close library partly or fully) - I made the decision to close

Table 2 (*continued*)

Changes in academic libraries during COVID-19	Resource	Quantitative data	Qualitative data
			library based on the restrictions of the country and security of people."
Remain true to the existing strategy	Leadership	91 %	1) "I do not think that crisis changed our values." 2) "One value is openness, and it was challenged in many ways".
	Directors		"When under a very critical situation like this one of the COVID, probably 80 to 90 % of what your strategic planning was would not change. Because the mission, the vision of your institution, and …of your service, … will not change because of the COVID"

LIBER, 2020a, 2020b). Similarly, the LIBER leadership survey verified that staff health and safety became library leaders' main concerns during COVID-19 (Shaghaei et al., 2022). Leadership survey respondents admitted that they had to de-prioritize their physical services because of the welfare of the library staff (LIBER, 2020b). One respondent claimed that in their country, "academic libraries, the real concern is being forced to keep physical buildings open during the pandemic even when there is a national lockdown enforcing the closure of most other physical buildings. While it is nice to know that libraries are deemed 'essential,' staying open physically creates a two-tier workforce with those who must work on-site at greater risk than those who are able to work remotely." (LIBER, 2020a, 2020b) This is also validated by qualitative interviews with library directors "Where people's health is at stake, the decision sometimes had to be made faster and with fewer people." (Lembinen, 2022).

Decision-making during the COVID-19 crisis showed that library directors consulted other academic leaders before making decisions. Library directors decided mainly on budget cuts and allocations; however, they consulted the library's senior leadership in advance. One of the significant changes compared to previous studies was that library directors had to decide on the closing and re-opening of a library (Frederick & Wolff-Eisenberg, 2020a, 2020b). Some directors consulted the university's crisis management teams, and some formed crisis management groups (Lembinen, 2022).

Regarding consulting resources during the crisis, library directors used the following resources: other academic libraries, state/government guidelines, and online instructions (Frederick & Wolff-Eisenberg, 2020a, 2020b; Lembinen, 2022). European libraries said that there were no specific measures or support from the government for libraries (52,36 %). User feedback was least consulted during the COVID crisis both in the U.S. as well as Europe (78,05 %) (Frederick & Wolff-Eisenberg, 2020a, 2020b; LIBER, 2020a, 2020b).

Post-COVID-19 academic libraries

Surveys also looked at how library leaders predicted future developments within twelve months. Library directors believe that in the future (after the pandemic), the importance of a physical library building will remain - at 59 % (Frederick & Wolff-Eisenberg, 2020a, 2020b).

Library directors expected budget cuts in the next 12 months to continue (in addition to budget cuts since the pandemic's beginning). U.

S. library directors believed that budget cuts would happen without their consent and would be forced by the university. They expect the budget cuts to be between 14 and 24 % in the upcoming year (Frederick & Wolff-Eisenberg, 2020a, 2020b; ALA, 2020). For the staff, 69 % of U.S. library directors believe that in the upcoming 12 months, there will be no or very limited new hires at their libraries. (ALA, 2020). European library leaders did not expect massive budget cuts in the upcoming year (52,2 %) (LIBER, 2020a, 2020b).

Leadership survey respondents believed that one of the changes that will also remain in the future is the distance collaboration for their staff, including digital meetings and more home working hours (LIBER, 2020b). 50 % of U.S. library directors believe that they will allow library staff to be more flexible in their working locations in the future (Frederick & Wolff-Eisenberg, 2020b). European library leaders are convinced that within the upcoming months, they must focus on staff digital skills training (48,77 %) even though over 50 % of them felt their staff is either highly or knowledgeable in delivering virtual services (LIBER, 2020a, 2020b).

At the same time, library leaders admit that even with the crisis, they remain faithful to the library's strategy and vision. The Leadership survey showed that 91 % of library leaders believe their strategy remains relevant during the pandemic and does not need to be changed (Shaghaei et al., 2022). Results show that the crisis did not change the main goals and strategies of the academic library. Furthermore, the value of academic libraries for their universities increased during the COVID-19 crisis. 86 % of Ithaka respondents also confirmed this (Frederick & Wolff-Eisenberg, 2020a, 2020b).

RQ2 - academic library leaders' decision-making during the crisis

Academic library leaders' decision-making in crisis differs slightly from routine decision-making. While library directors in crisis situations are forced to make decisions independently, they often consult with the either senior academic leadership of the university or their leadership team in the library (Frederick & Wolff-Eisenberg, 2020a, 2020b; Leadership; Directors).

Various directors confirm in their interviews that the crisis has changed the pace of decision-making and procedures from decision to implementation (fewer committees, fewer discussions, etc.). "I like crisis management. You have to act quickly, and there is no space for long everlasting debates of 'what if,' which makes it so difficult for our library system to develop." (Lembinen, 2022). One of the main findings (Table 3) showed that directors tend to make decisions quickly in a crisis (11 out of 19 interview respondents), allowing them to push through decisions within the library or university much faster. "Pandemic has helped me a lot to get things through that I wanted to get through." (Lembinen, 2022) or "the speed of implementation has changed… decision making has become slightly more streamlined." (Lembinen, 2022).

At the same time, library leaders do not turn into autocratic leaders who do not consult their staff (at least the leadership team is usually involved) while deciding in a crisis. "It changes, I won't have a group of 4 but 2. It is very fast, discuss in minutes and draw decision." (Lembinen, 2022). Library directors consulted smaller teams when deciding on the opening-closing of the library or budgeting issues (almost half of these decisions were made independently or after consulting with the university leadership). One of the directors in the interview confessed that the library was "the most prepared service within the university. We were ready… the university said no. We are ready, we can do everything. And we are not allowed" (Lembinen, 2022; Frederick & Wolff-Eisenberg, 2020a, 2020b). When it came to budget cuts, often library directors' independence was decreased, and these decisions were often made outside the library (Frederick & Wolff-Eisenberg, 2020a, 2020b).

When making these fast decisions, library directors are aware that the quality of the decision may suffer, so they try to keep the university's and patrons' best interests in mind. "Time pressure… need to change, change your decision by the interest of the institution." (Lembinen,

Table 3
LIBER academic library directors' decision-making in crisis (compiled by the author).

Participant	I decide faster	Smaller team	Follow decision structure	Do not prefer fast decisions	Keep strategy in mind	Communicate more	Deciding more alone	Align with the university	Collect information faster	Collect more information
P1	x									
P2	x									
P3	x		x						x	
P4	x									
P5						x				x
P6	x	x			x					
P7		x		x	x		x			
P8			x			x				
P9	x									
P10	x			x						
P11			x		x			x		
P12	x		x	x						
P13		x					x			
P14		x	x							
P15	x									
P16	x									
P17	x									
P18	x	x	x							
P19	x									
Total	13	5	5	4	3	2	2	1	1	1

2022). Table 3 shows the main changes in decision-making during the crisis based on interviews with LIBER academic library directors.

Based on the surveys, the challenges and ways of handling academic libraries in the United States and Europe are pretty similar. Slight differences can be observed in budget changes as well as freedom of decision-making of the directors, which is related to the structure and funding policies of different academic systems.

Discussion

This paper investigated what type of changes academic library leaders had to decide upon during the COVID-19 crisis and how these strategic decisions were made. Leaders of academic libraries had to make unprepared decisions in a crisis with various unknown factors. Library leaders were facing similar unknown circumstances to other organizations. Often these decisions also depend on the university's leadership requirements or policy (Louderback, 2021; Tolppanen, 2021), and the library leader him/herself is not entirely free in their decisions. The findings indicate that while during the COVID-19 crisis, many academic institutions were closed, some libraries were required to remain at least partially open by the decision of the university management. In other cases, when libraries were ready to be re-opened, but university leadership did not approve it. The study results showed that when it came to the closing or reopening of the library, the leaders of academic libraries consulted either senior leadership of the university or library and guided their decisions based on official governmental recommendations.

The study also found that academic libraries faced a significant challenge with their physical collections and buildings during the COVID-19 crisis, as they had to quickly adapt to offering their physical services digitally. Since university staff and students continuously needed library services, academic libraries had to make physical collections digital (digitalization increased in most libraries where this service was offered) how quickly, as well as customize services based on the users' needs. While some libraries partially reopened during the summer of 2020, many experienced a significant decrease in physical library usage (up to 99 %) within a year. (De Groote & Scoulas, 2021) However, partial reopening allowed for limited access and different opening hours. Libraries also had to address the treatment of physical collections returned by patrons, with many opting to quarantine or clean them due to uncertainty about the spread of the disease through books. (Frederick & Wolff-Eisenberg, 2020a, 2020b; LIBER, 2020a, 2020b).

Another critical change that library leaders faced was related to different staff aspects. All surveys showed that more than ever, library directors had to focus on their staff's physical health and safety. This study confirms that staff safety was one of the main challenges library leaders took very seriously. Yet, a situation that poses a genuine risk to the lives of every member of the library staff is typically not covered by the ordinary risk management strategy for the institution. (Akhshik & Beglou, 2023) and this study showed that it is time for libraries to change that. While at the beginning of the crisis, the focus was on physical health, then after a while, the mental health of the staff because also a topic to be considered (LIBER, 2020a, 2020b; Frederick & Wolff-Eisenberg, 2020a, 2020b; LIBER, 2020b; Lembinen, 2022).

In addition, the libraries had to face new working conditions – working remotely or having hybrid staff; this became a new normality for libraries during the COVID-19 crisis. Most libraries were not prepared for this (Bynoe, 2022). For libraries, this new normality during the COVID-19 crisis brought a new issue: what tasks can staff members do whose work is not related to non-physical services? Libraries' directors faced staff reductions and budget allocations, and staff hiring was stopped or limited. Often the decisions of staff budget allocation and decrease were out of the hands of the library directors. It became "harder to justify keeping staff whose work depends on the physical library on the job rather than furloughing them" (Frederick & Wolff-Eisenberg, 2020a, 2020b, p.10). This may result in a new type of library staff. Recent research strengthens the expectation from academic library staff with the assumption that new hiring will already allow flexible working in the future; it could also mean that library spaces to be transferred from staff offices into more user spaces (Green, 2022); Connell et al., 2021, Hosoi et al., 2021). This study demonstrated that distance work was the one area that libraries were least prepared for, yet, library leaders believe that this will continue to be part of the future of the libraries.

The new type of librarian may also emerge from the lessons learned about the lack of skills of library staff and leadership. Library directors valued the following skills as the most important ones during the COVID-19 crisis: change management, communication, and financial management skills, which were different from previous surveys where in addition to change management and communication, knowledge of higher education and librarianship trends were also prominent (Frederick & Wolff-Eisenberg, 2020a, 2020b). These findings confirm what also other researchers have suggested (Newman, 2021; Pryce et al., 2021; Tsekea & Chigwada, 2020).

Deciding in a crisis can change how the decisions are made. Often, a crisis is also a suitable time for innovating or changing existing practices or procedures (Newman, 2021) and making decisions (Table 3). It may require a faster pace of decision-making or a change of decision structure. The findings confirm that according to the Vroom-Yetton model (Vignesh, 2020; Vroom & Yetton, 1973), library directors implement the second consultive style the most during crisis management: they consult their teams, but, in the end, the final decision is their own. They do not necessarily search for consensus and implement long discussions to find a perfect solution that satisfies everybody (Lembinen, 2022).

This COVID-19 crisis showed that libraries must remain relevant and increase the value of the services developed during the crisis. No challenge has been more extensive than the COVID-19 crisis, which has influenced all libraries and universities worldwide.

Limitations

This paper has limitations due to the diverse nature of the studies it combines. Additionally, the author cannot guarantee the quality of all the research used, and readers must keep in mind that there are differences in library funding and structure between continents. The author's own research focused on strategic decision-making among European academic library directors, with COVID-19 becoming a part of the research in 2020. Lastly, since the studies were conducted among academic libraries, there is a possibility of overlapping respondents.

Conclusion

This paper compares four surveys conducted in 2020 on academic libraries during the COVID-19 crisis. The study used both qualitative and quantitative research to analyze the library's response to the pandemic, including an increase in digital services, safety measures, and virtual work. Other challenges included uncertainty and government or university decisions that slowed the library decision process. Libraries were also forced to reorganize staff work from physical to hybrid situations and decrease training and staff hiring.

Despite the crisis, library directors aimed to reflect the university's needs and follow the library's strategy. Deciding in crisis in academic libraries takes a faster pace; directors are willing to decide alone or involve only a minor team, if necessary, even though library leaders prefer more calculated, researched, and shared decision-making. Some directors even appreciated the opportunity to make decisions quickly due to time constraints.

The COVID-19 crisis allowed academic libraries to have a different perspective. In the future, academic libraries will be more flexible in their work arrangements and have better and more adaptable procedures for handling new crises. The digital collections and services will be developed to a new level while the physical building will remain an essential space for academic users. The COVID-19 crisis has given academic library leaders a new skillset for crisis management by giving them an opportunity to practically go through changes at a pace they would have never expected. Hopefully, academic library leaders have learned from this crisis how to change the value and operation of the academic library in a way that best meets the needs of their universities and is not fixed in the traditional ways of operating.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

References

Aiwuyor, J. (2020). ARL Urges Publishers to Maximize Access to Digital Content during COVID-19 Pandemic. Association of Research Libraries, 22 April https://www.arl.org/news/arl-urges-publishers-to-maximize-access-to-digital-content-during-covid-19-pandemic/.

Akhshik, S. S., & Beglou, R. R. (2023). A systematic review of crisis management in libraries with emphasis on crisis preparedness. *IFLA Journal, 49*(1), 201–215. https://doi.org/10.1177/03400352221089675

American Library Association (ALA). (2020). Libraries Respond: COVID-19 Survey, 11 May https://www.ala.org/tools/covid/libraries-respond-covid-19-survey.

Ashiq, M., Jabeen, F., & Mahmood, K. (2022). Transformation of libraries during Covid-19 pandemic: A systematic review. *The Journal of Academic Librarianship, 48*(4), Article 102534. https://doi.org/10.1016/j.acalib.2022.102534

Bynoe, V. (2022). A perspective on academic library middle management in the COVID era. *Journal of Academic Librarianship, 48*(4), Article 102559. https://doi.org/10.1016/j.acalib.2022.102559

Connaway, L. S. (2020). The New Model Library. Welcome home. OCLC, 30 July https://blog.oclc.org/next/the-new-model-library-welcome-home/.

Connell, R. S., Wallis, L., & Comeaux, D. (2021). The impact of COVID-19 on the use of academic library resources. *Information Technology and Libraries, 40*(2). https://doi.org/10.6017/ital.v40i2.12629

Cosgrave, J. (1996). Decision making in emergencies. *Disaster Prevention and Management, 5*(4), 28–35.

De Groote, S. L., & Scoulas, J. M. (2021). Impact of COVID-19 on the use of the academic library. *Reference Services Review, 49*(3/4), 281–301. https://doi.org/10.1108/RSR-07-2021-0043

Deol, N. K., & Brar, K. S. (2021). The pandemic of COVID 19 and role of academic libraries. *Library Philosophy and Practice (e-journal)*, 5099. https://digitalcommons.unl.edu/libphilprac/5099.

Dirani, K. M., Abadi, M., Alizadeh, A., Barhate, B., Garza, R. C., Gunasekara, N., Ghassan Ibrahim, G., & Majzun, Z. (2020). Leadership competencies and the essential role of human resource development in times of crisis: A response to Covid-19 pandemic. *Human Resource Development International, 23*(4), 380–394. https://doi.org/10.1080/13678868.2020.1780078

Eberth, A. M. (2021). The Cynefin framework: A retrospective application to university library leadership COVID-19 responses. *Kansas Library Association College and University Libraries Section Proceedings, 11*(1). https://doi.org/10.4148/2160-942X.1081

Frederick, J. K., & Wolff-Eisenberg, C. (2020, April 2). *Ithaka S+R US Library Survey 2019*. https://doi.org/10.18665/sr.312977

Frederick, J. K., & Wolff-Eisenberg, C. (2020, December 9). *Academic library strategy and budgeting during the COVID-19 pandemic: Results from the Ithaka S+R US Library Survey 2020*. https://doi.org/10.18665/sr.314507

Green, A. (2022). Post covid-19: Expectations for academic library collections, remote work, and resource description and discovery staffing. *The Journal of Academic Librarianship, 48*(4), 102564. https://doi.org/10.1016/j.acalib.2022.102564.

Greenhall, M. (2020). Covid-19 and the digital shift in action report. RLUK Report. https://www.rluk.ac.uk/covid-19-and-the-digital-shift-in-action/.

Heavey, C., Simsek, Z., Roche, F., & Kelly, A. (2009). Decision comprehensiveness and corporate entrepreneurship: The moderating role of managerial uncertainty preferences and environmental dynamism. *Journal of Management Studies, 46*(8), 1289–1314.

Hosoi, M., Reiter, L., & Zabel, D. (2021). Reshaping perspectives on flexible work: The impact of COVID-19 on academic library management. *Libraries and the Academy, 21*(4), 695–713. https://muse.jhu.edu/article/818424.

Jantz, R. C. (2017b). Vision, innovation, and leadership in research libraries. *Library & Information Science Research, 39*(3), 234–241. https://doi.org/10.1016/j.lisr.2017.07.006

Kang, Q., Song, Z., Lu, J., Shi, T., & Yang, J. (2022). COVID-19 impact on the Chinese top academic libraries: Libraries' response to space, collection and services. *The Journal of Academic Librarianship, 48*(4), Article 102525. https://doi.org/10.1016/j.acalib.2022.102525

Kennedy, M. L. (2020). IMLS Director Crosby Kemper Discusses Role of Libraries and Museums during COVID-19 Pandemic. Association of Research Libraries, 22 June https://www.arl.org/blog/imls-director-crosby-kemper-discusses-role-of-libraries-and-museums-during-covid-19-pandemic/.

Kezar, A. J., & Holcombe, E. M. (2017). *Shared leadership in higher education: Important lessons from research and practice*. Washington, DC: American Council on Education. https://www.acenet.edu/Documents/Shared-Leadership-in-Higher-Education.pdf.

Klimczak, K. M., Machowiak, W., Shachmurove, Y., & Staniec, I. (2020). Perceived collaborative risk in small and medium technology enterprises. *Journal of Small Business Management, 1–20*. https://doi.org/10.1080/00472778.2020.1799305

Kumar, R. (2022). The COVID-19 pandemic led to the redesign of library resources and services: Turning crisis into an opportunity. *Library Philosophy and Practice (e-journal)*, 7145. https://digitalcommons.unl.edu/libphilprac/7145.

Lawton-Misra, N., & Pretorius, T. (2021). Leading with heart: Academic leadership during the COVID-19 crisis. *South African Journal of Psychology, 51*(2), 205–214. https://doi.org/10.1177/0081246321992

Lembinen, L. (2021). Innovation in European academic libraries – Leadership perspective. *Journal of Library Administration.* https://doi.org/10.1080/01930826.2021.1984136

Lembinen, L. (2022). *LIBER academic library directors' strategic decision making. Raw data (not publicly available)*.

LIBER. (2020a). COVID-19. How Have Academic Libraries Responded to the Covid-19 Crisis? [Survey report]. https://libereurope.eu/wp-content/uploads/2020/12/Covid-19-Report-December-2020.pdf.

LIBER. (2020b). *Library leadership survey. Raw data (not publicly available)*.

Louderback, P. (2021). During and post COVID-19 practices of a regional academic library. *Journal of Library Administration, 61*(6), 726–734. https://doi.org/10.1080/01930826.2021.1947062

Newman, N. (2021). Academic library leadership lessons from COVID-19. *Library Leadership & Management, 35*(2).

Pryce, T., Russell, J., Crawford, M., McDermott, J., & Perkins, A. (2021). Experiences, perspectives, and emerging frameworks: COLINET libraries response to the COVID-19 pandemic. *Global Knowledge, Memory And Communication.*. https://doi.org/10.1108/gkmc-03-2021-0055

Rao, B. P., Rao, P. B., & Sivaramakrishna, K. (2009). *Strategic management and business policy*. Adfo Books.

Reed, K. N., Kester, B., Kauffmann, K. F., Homol, L., & Crampsie, C. (2022). Crisis librarianship: An examination of online librarianship roles in the wake of the COVID-19 pandemic. *The Journal of Academic Librarianship, 48*(4). https://doi.org/10.1016/j.acalib.2022.102530

Shaghaei, N., Knowles, C., Morley, F., Eveleigh, A., Casaldàliga, N., Nolin, E., Tatai, A., Cohen, M., Pronk, M., & Ghesquière, E. (2022). Library resilience and leadership in a global crisis. *LIBER Quarterly: The Journal of the Association of European Research Libraries, 32*(1), 1–21. https://doi.org/10.53377/lq.10930

Shah, J. (2020). Three psychological traits effective leaders know how to manage. CEO of Do. https://www.fastcompany.com/3052136/3-psychological-traits-effective-leaders-know-how-to-manage.

Shepherd, N. G., Mooi, E. A., Elbanna, S., & Rudd, J. M. (2021). Deciding fast: Examining the relationship between strategic decision speed and decision quality across multiple environmental contexts. *European Management Review, 18*(2), 119–140.

Temiz, S., & Salelkar, L. P. (2020, November 25). *Innovation during crisis: Exploring reaction of Swedish University Libraries to covid-19. Digital Library Perspectives.* https://doi.org/10.1108/DLP-05-2020-0029/full/html

Tenopir, C. (2010). Measuring the value of the academic library: Return on investment and other value measures. *The Serials Librarian, 58*(1–4), 39–48. https://doi.org/10.1080/03615261003623005

Tsekea, S., & Chigwada, J. (2020). COVID-19: Strategies for positioning the university library in support of e-learning. *Digital Library Perspectives, 37*(1), 54–64. https://doi.org/10.1108/dlp-06-2020-0058

Tolppanen, B. P. (2021). A survey of response of access services in academic libraries to COVID-19. *Journal of Access Services, 18*(2), 65–76. https://doi.org/10.1080/15367967.2021.1871619

Vignesh, M. (2020). Decision making using Vroom-Yetton-Jago model with a practical application. *International Journal for Research in Applied Science & Engineering Technology, 8*.

Vroom, V. H., & Jago, A. G. (1995). Situation effects and levels of analysis in the study of leader participation. *The Leadership Quarterly, 6*(2), 169–181. https://doi.org/10.1016/1048-9843(95)90033-0

Vroom, V., & Yetton, P. (1973). *Leadership and decision-making. Administrative science quarterly*. December. *18*. Accessed through Bibliovault OAI Repository, the University of Chicago Press. https://doi.org/10.2307/2392210.