Staying Ahead of the Curve: Mitigating Disruptions Through Business Continuity Planning in the Academic Library Setting

Donna Lyn G. Labangon¹, Simon V. De Leon², Roana Marie L. Flores³, Mennie Ruth A. Viray⁴, May L. Cajes⁵

De La Salle University

Abstract: Organizations of all sizes and forms have been immensely challenged by the Covid-19 global crisis and libraries are not exempted. The pandemic is just one of the many faces of disruptions that could either make or break an entity. To help mitigate the potentially destructive impacts and risks associated with various disruptive incidents, a sound business continuity plan (BCP) must be prepared ahead. This research aims to come up with a proposed BCP for the a university library in response to major disruptions such as natural calamity, pandemic, man-made threats, and the like. This paper utilized a descriptive research design in the form of a quantitative method. The authors devised a modified survey questionnaire composed of open and closed-ended questions in order to explore the organization's business impact analysis. This study will be beneficial to the library department and its mother institution to continue in delivering its core services albeit with the uncertainties and threat scenarios. Additionally, this paper will also serve as a guide for library managers who are planning to devise a BCP on their respective libraries.

Keywords: Business continuity planning, crisis management, response planning, academic librarianship

1. Introduction

In 2020, the whole of mankind was met by what could be the biggest meltdown since the welcome of the information age - the Covid-19 pandemic. A global shutdown of major services and operations brought havoc in both private and

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public institutions - large and small. In such unprecedented times, institutions were forced to respond with extraordinary measures, rethinking policies and revising processes beyond the usual in order to survive through the crisis. This also led institutions to critically evaluate their organizational workflows and assess what needs to continue when disruptions occur.

Risks, losses, threats, and disruptions are inevitable in any institution but mitigating the effects and ensuring the survival of the institution is possible with strong strategic planning and contingency thinking (Horava, 2014). There is no single approach or a one-size-fits-all model that could provide an immediate solution to any crisis. Nevertheless, an institution's ability to be nimble and anticipate scenarios or aftermaths may provide a cushioning effect, sparing the institution from further or massive loss.

In this study, the challenges faced and response planning of a university library were taken into account to develop a Business Continuity Plan (BCP). Ideally, these alternative work processes must be put in place in case of disruption brought by calamity, pandemic, and the like. As such, the study touched on the university library's processes, workflow continuity impacts, and pinpoint the critical ones to be able to identify the success factors.

1.1 Educational Institutions and Libraries in the midst of the Covid-19 Pandemic

How educational institutions respond to threats and disruptions determines the effectiveness and continuity of their operations and survival. Evidence has been gathered by the authors exhibiting how these institutions press on despite the debilitating effects of the Covid-19 pandemic. For instance, in Italy, schools and libraries were totally closed, completely transitioned into online distance learning, and the organization of work had to be changed based on lockdown restrictions imposed by the government (Tammaro, 2020). In Pakistan, Higher Educational Institutions (HEI) collectively outlined a plan for online teaching and learning which later on resulted in the unexpected surge of online classes (Rafiq et al., 2021). The reactive surge brought about numerous challenges to all stakeholders, which according to Rafiq et al. (2021), include the lack of information technology resources and facilities to operate in a highly digital environment. Students, faculty members, and employees were also banned from entering the school premises. These were also tantamount to Jamaica and the rest of the Caribbean as Harris (2021) specified that educational institutions were physically closed, online teaching and learning were favored, and strict new normal procedures were implemented. The pursuit of various response strategies to Covid-19 differs from island to island and this immensely affected universities and their libraries.

In the Philippines, a large portion of the country was placed under enhanced community quarantine in response to the rising Covid-19 cases throughout the

country (Official Gazette, 2020 March 16). This compelled educational institutions to suspend all physical operations and student activities as mass gatherings were also prohibited and strict home quarantine was enforced; affecting more than 28 million Filipino learners all over the country (UNESCO, 2020). Despite recommendations on the use of various learning delivery options such as homeschooling, blended learning, or fully online learning and the adjustment of academic calendars, the sudden and prolonged suspension of faceto-face learning eventually had an impact on the ability of several educational institutions to support continuous operations. By September 2020, the Department of Education (DepEd) reported more than 700 school closures stating low enrollment turnout and transfer of teachers to public schools as primary reasons (CNN Philippines Staff, 2020). In a report published by Simbulan (2020), the use of online learning for some HEIs was deemed unsustainable due to the inability of their students and faculty to cope, citing poor socioeconomic status and severe emotional and mental stress as primary causes.

While innovations and stopgap measures were continuously being carried out by educational institutions to survive, the Covid-19 pandemic also had debilitating effects on the existence of libraries and information centers worldwide. In 2020, the International Federation of Library Associations and Institutions (IFLA) presented the challenges endured by libraries in different parts of the world, ranging from the imposition of health and public measures and restrictions to full closure since the onset of the Covid-19 pandemic.

In the same study by Harris (2021), member libraries of the Jamaican Academic Libraries (JAL) took part in an investigation of such disruptions that is crippling the way libraries deliver their services. The initial pandemic response of these libraries was captured which in turn highlighted their strengths, weaknesses, and plans for continuity. Furthermore, Harris narrated that 100% of member libraries of JAL affirmed that they do not have an existing BCP or emergency preparedness plan. Research Libraries UK (RLUK) also articulated in a report that only a few member libraries had contingency plans for a pandemic. Plans for library closures and policies for remote working were developed constantly and expeditiously by incorporating the pre-existing scenario plans and those that were developed from scratch (Greenhall, 2020). Gneist et al. (2009) pointed out that while several institutions and organizations are now using BCP, many are still taking it for granted and utterly unaware of how crucial it is for the organization's survival.

In the Philippines, a study by Flores and Tansiongco (2021) revealed that many libraries have just recently thought of developing their BCP and emergency preparedness plan which should have been present pre-Covid. The study further accentuated that crafting of a BCP was not a priority of the 33 academic and special libraries included in the study which brought to light the reality of limited studies focusing on emergency preparedness and BCP for libraries.

1.2 Building Resilience with Business Continuity Planning

Organizational resilience is essential for institutions to successfully overcome adversities and adapt to the associated risks. For an organization to be considered "resilient," three key attributes should be present: (1) organization operating in a dynamic environment, (2) organization that responds to crisis by reconfiguring, optimizing, and reshaping existing processes, and (3) organization that can recover quickly and attain growth. In short, organizational resilience is not just about surviving but also the act of thriving despite adverse situations (Chen et al., 2021).

One good strategy to attain organizational resilience is to design a robust BCP. Organizations that don't have an ongoing approach to BCP are more likely to end up with plans that are either inadequate, incomplete, or impractical whenever a disruption occurs. BCP is a proactive and multistep process geared towards the formulation of an individualized plan tailored to fit a specific organization (Tracey et al., 2017).

A business continuity policy typically involves eight core steps: (1) initiate the business continuity plan (BCP) project, (2) identify business threats, (3) conduct risk analysis, (4) establish business continuity plan, (5) design business continuity plan, (6) define business continuity process, (7) test business continuity plan, and (8) review business continuity plan (Lam, 2002). The business continuity plan is a cycle that should be periodically reviewed to be relevant and to continue serving its purpose as a roadmap to guide the organization.

1.3 BCP for University A Libraries

University A as one of the premiere HEIs in the country was not spared from the effects of the Covid-19 pandemic. All university service transactions and face-to-face classes were forced to be administered online. A skeletal workforce for critical services (i.e. information technology, finance and accounting, health services, and security) was also strictly enforced, as advised in an internal announcement from the University Chancellor (B. Oca, personal communication, March 14, 2020).

In response to these scenarios, the University A Libraries started implementing interim policies and procedures to enable the continuity of programs and services. As University A Libraries did not have a formal BCP prior to the pandemic, interim policies developed were reactionary in nature and were being continually revised in the early period of the quarantine. Several consultation meetings were likewise held among the library management committee and unit coordinators in which library work plans based on KRAs were amended to serve as the standard process during the pandemic period to be implemented starting Term 1 of Academic Year 2020-2021.

Hence, this study was aimed at assessing the current interim processes, workflow continuity impact, and critical success factors; identifying provisionary workflows and alternative strategies of University A libraries in case of disruptions. This study also investigated the various action plans and measures with insights that capture pre-pandemic processes of University A Libraries.

2. Methodology

This study utilized a mixed descriptive research design to acquire both quantitative and qualitative responses. The study participants were chosen using purposive sampling taking into account the following criteria set forth by the authors: 1) librarians holding middle and top management positions; and 2) currently assigned in the Manila and Laguna campus throughout the conduct of the study.

The authors devised six sets of survey questionnaires composed of open and close-ended questions based on each library units' work plan anchored in the University A Libraries' Key Result Areas (KRAs). The approval and endorsement of the library director were initially sought prior to data collection. Upon approval, the authors sent the survey questionnaires to the identified library unit coordinators via email. Respondents were given a week to answer the survey to ensure a thorough understanding of the aim of the study, as well as to better prepare their responses. All of the six (6) unit heads responded: Archives (ARCH), Director's Office (DO), Laguna Campus (LAG), Media and Systems Services (MSS), Readers' Services (RS), and Technical Services (TS). Responses were examined and distinct elements were extracted. Follow-up questions for clarifications and validation of some of the responses were also sought out.

The questionnaires were divided into four major parts: 1) action plan and specific tasks/activities/measures, 2) assessment proper, 3) dependencies for continuous delivery, and 4) insights or lessons from the current process compared to the pre-covid process. The first part of the questionnaire reflected each unit's action plans based on the library KRAs and the specific work processes: detailing the actual work to be done, and the current modes of delivery whether primarily work from home, on-site operation, or a mix of the two. In the second part, respondents were asked to categorize whether the work was critical, essential, or complimentary. Critical work processes were highly important and regularly operating tasks that were relevant to the unit and central to their mandate. Without the critical processes, the unit cannot be relevant. Essential work processes were tasks that were also highly important, but

irregular in their scheduling operations and can be risked being disrupted for a set period of time. Complimentary work processes were tasks that added value to the existing KRAs, but were not deemed to be crucial and can be made unavailable without too much effect on existing processes at any given time. The second part of the assessment also sought to find out the ease of implementation of the pre-Covid-19 work processes into the interim modes of delivery, and the resultant efficiency of the same processes. The third part of the questionnaire identified the dependencies that enabled the specific work processes to be carried out. It included technological tools such as equipment and software, material supplies and resources, and other elements such as organization offices and community networks. Finally, the fourth part of the questionnaire sought to present the realizations and learnings of each unit in carrying out the different work processes and possible changes that they wanted to be made. To create the BCP checklist, this study made use of the structure used by Harris (2021) in her checklist as a starting point. The resulting BCP checklist was then created by analyzing the findings from the responses which were then categorized into the library administration, library collection, library space, library programs and services, and technology in an attempt to answer the research questions.

3. Results and Discussion

The combined and summarized responses for the whole library are presented in Table 1. For summarized responses per department, please refer to Annex B-I.

Table 1Summarized and Combined Results of the Responses

Current Mode of Delivery	 All of the units employ work from home arrangements for all of their processes. RS and DO have a few tasks that need to be done on-site on a limited basis.
Work Processes Categorization	 Critical tasks can be categorized into the following areas: client relations and support and public communication policy and strategy management personnel management budget preparation, procurement, evaluation of resources collection management and deployment of online resources (for TS), and quality control of records and uploading of theses and dissertation to the institutional repository continuity of established projects Essential tasks include: creation of subject guides and reading lists bibliographic work such as cataloging and indexing event management and launch of new programs and initiatives staff training activities marketing and promotion Complimentary tasks include: collection development (for RS)

	 development of in-house cataloging policies (TS) staff training (for LAG) networking and linking (for LAG) guidelines and documentation for routine services (for LAG)
Deviations	 Deviations due to the pandemic involve temporary staff augmentation from other units to RS for reference services. Regular and high-level meetings and consultations which were traditionally done face-to-face shifted online. Budget allocation for activities previously held onsite significantly decreased. Work related to accreditation was put on hold Staff recruitment was put on hold. Addition of limited on-premise library operations and population of institutional records.
Possible Impact Upon Disruption	 Reputational complaints from clients misinformation due to irrelevant and outdated resources lack of reference assistance offered lack of new services loss of trust of internal and external partners Organizational disruption and delay of work operations lack of synergy within the team low morale Financial budget problems delay in acquisition of materials and renewal of subscription suspension of business contracts Regulatory or legal suspension of work contracts accreditation issues
Difficulty of Implementation	 Tasks that are natively online, or online-based such as reference services and acquisition tasks are the easiest to transition. Tasks that involve physical aspects such as cataloging of physical resources, and staffing for on-premise circulation were among the most difficult among regular tasks. Leading and implementing the transition itself was also difficult due to various processes in managing the whole library. Staff development also had difficulty in transition due to different staff competencies and connectivity issues. The budget allocation also poses a challenge as factors to be accounted for keep changing. Several essential and complimentary tasks such as new programs and initiatives were hard to transition due to priority. Other routine tasks and regular services were transitioned without too many issues.
Efficiency	 Efficiency did not change significantly for the task which is already online pre-pandemic. However, some online tasks have increased efficiency due to a higher focus on online services. Tasks that had transitioned or shifted the focus to full online such as staff development and cataloging had an increase in efficiency. Tasks about updating records and manuals increased.

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	 Tasks that involve physical material circulation and physical processes which includeface-to-face transactions have the lowest efficiency rate. Procurement and management of projects had a decrease in efficiency due to moving timelines and difficulty in contacting partners. Communication, coordination, monitoring have increased efficiency due to convenience. The creation of library resources, continuity of plans, projects, and services also increased efficiency as there was no need to be onsite. 		
Dependencies Identified	 Technology ICT tools such as laptops and internet connection are required for all tasks as well as constant access to the integrated library system and electronic resources Online communication tools and software Licensed software for multimedia editing and other specialized use Supplies Disinfectant and sanitation supplies Safety signages and markers Other offices, functions, and external partners Regular coordination from the various university administration and offices. Support from systems and database administrators was regularly requested. Leadership and direction are needed from the library management committee (for LAG). Collaboration with faculty members and external partners. External partners, suppliers for resource acquisition, and faculty and students for collection suggestions. Courier services for delivery, security office for incoming and outgoing material inspections, and for staff entry. 		
Insights or Lessons Acquired	 Library Administration Importance of the employee's well-being particularly in the aspects of physical and mental health. Emphasis on staff upskilling and reskilling in order to adapt to the new normal protocols. The surge of free webinars made it more accessible for staff to attend relevant continuing professional endeavors. Urgent need for a disaster and risk management plan. The need to respond to budget cuts and the uncertain financial future. Team adaptability and cooperation are imperative and critical in order to operate in both the onsite and work from home set-up. More opportunities to collaborate and engage within and outside the university. Library Collection Digital resources and tools as a priority and a long-term investment. Provision of digital copies of printed records. Library Programs and Services Library Programs and Services. Extreme reliance on the virtual reference tools, i.e. chat facility and email Establish more self-service and touchless transactions/processes Shift to virtual alternatives as much as possible 		

3.1 Business Impact Analysis

With the results of the detailed survey, the authors were able to identify tasks and activities that are key to its operations. These key areas were identified to provide insights that will assess the potential effect of a disruption and determine the basic recovery requirements in order to resume operations.

3.1.1 Current Mode of Delivery - Despite the challenge of this transition, all sections managed to adapt their work processes online, in various capacities. However, there are reported tasks that need to be fulfilled on-site.

3.1.2 Work Processes Categorization - Out of the fifty-eight (58) reported tasks, nineteen (19) were identified as critical tasks that if disrupted, the section will not function. Tasks that are important to do but can be delayed for a period of time were marked as essential (31). On the other hand, nine (9) complimentary tasks were identified to mean that they are good to accomplish but can be replaced or suspended without significantly affecting other work. Recognizing the critical, essential, and complimentary tasks enables the library administration to prioritize its service efforts to ensure continued operation and service delivery.

3.1.2 Deviations - The unprecedented shift in the process entails adjustments to the workflow processes, formulation of new guidelines, and upskilling library staff. For tasks that are highly dependent on technology, in particular, 24/7 access to resources, online reference services, collection development activities—no changes in the process were reported. As such, continued provision of learning and research support services to the university community is guaranteed. However, narrowing our focus to those marked as "critical" tasks, eleven (11) were identified with deviations from the established work plan. These tasks include those that are related to the implementation of the Libraries' interim and long-term service operation.

3.1.3 Possible Impact Upon Disruption - In this particular business activity, authors were able to categorize the potential impacts on its services once it is disrupted. The reputational impact pertains to how the partners, stakeholders, and the academic community perceives the Libraries. On the other hand, organizational impact concerns changes in the routines, structure, or nature of work within the institution. The remaining impact highlights the financial and legal consequences of the disruption. From the identified work tasks, the majority of the impact is reported on the reputational aspect. However, it is also significant to note that those tagged with "critical" tasks exhibit impacts that are also organizational, financial, and legal in nature.

3.1.4 Difficulty of Implementation - Undeniably, the shift from the pre-pandemic process to the current online work-from-home setting involves some transition difficulties. It is that transitions are highly dependent on the nature of the work or activity. Online-based services such as reference and acquisition tasks are the easiest to transition. Meanwhile, new programs and initiatives are put on hold due to logistical constraints and are often identified as the hardest to transition since other services are tagged as priority. In addition, most "critical" tasks requiring onsite attention e.g. circulation services were also marked difficult. In this case, staffing is a major challengeavailability and safety must be considered a priority. In addition, switching whether to operate online or onsite depends on the existing protocols of the University and the Inter-Agency Task Force on Emerging Infectious Disease (IATF) guidelines from the government. This adds to the challenge of constantly adjusting and reviewing current guidelines and staff availability.

3.1.5 Efficiency - With the inevitable transition to online processes and changes in the delivery of services, the desired results are now achieved in different ways. From the services point of view, tasks that were already performed online pre-pandemic reported to have a significant effect on efficiency. This is mainly due to a number of staff that were now delegated to handle such service, in particular, the Ask LORA (Library Online Reference Assistant) channels that are handled on shifts during service hours, with queries received during off hours to be managed the next day. Increased efficiency was also recorded on tasks that involve using online systems and tools-updating manuals, bibliographic records, library resource guides even monitoring and evaluation of purchase and subscription requests as well as cataloging of ebooks and indexing of university publications. Staff meetings, training, and development programs are now easier to conduct in the online setting. Performing coordination activities is more convenient as plenty of channels are available to communicate. However, decreased efficiency is reported on tasks that require physical presence onsitecirculation of books and procurement of library materials. Projects that were suited face-to-face e.g. mobile libraries were also put on hold for the time being.

3.1.6 Dependencies Identified - Across all the tasks investigated, reliance to technology is consistently present. It is also worthwhile to note that this particular dependency poses these related concerns—skill set of staff, availability of technology (i.e. hardware, specialized equipment, software) and access to stable internet connection. Hence, this should be an important priority in the BCP checklist. Other key players that are needed were the support team from different offices in

the university-faculty members, systems administrators, ITS support staff and security officers.

3.1.7 Critical Success Factors - From this business impact analysis, the authors found out that libraries must plan and develop these key areas to ensure continued operations. They can be categorized into: 1) library administration, 2) library collection, 3) library programs and services. The library administration must advocate to design a staff development framework addressing the employee's well-being with a proper balance of training and seminars aimed to upskill and reskill them. Contingency measures must be put in place, hence, the need to craft a detailed disaster and risk management plan. In addition, to ensure continued provision of research support, the libraries must invest in digital resources and tools to maintain the integrity of the collection. Lastly, create adaptive library programs and improve service delivery by ensuring all personnel are properly trained and briefed with the changes. Team adaptability and cooperation are needed to survive any disruption.

3.2 Proposed Business Continuity Plan Checklist

After a thorough review of the work plans, the authors drafted a proposed BCP checklist that can serve as a roadmap for libraries to ensure workflow continuity. The principal questions that guided the team in this proposed BCP were: (1) What are the current strengths that we can retain? (2) How can we invest to improve them further? (3) What are the weaknesses that we can improve? (4) What can we remove? (5) What are other things that we can consider or implement moving forward? (6) What can we suggest to avoid disruption?

In every BCP, an institution must be able to identify what are the critical functions to keep and be able to recover with only a short period of downtime possible. Hence, this checklist is categorized according to the critical success factors identified in the course of our business analysis impact. It presents the important business continuity enablers in each critical success factor together with the proposed specific plan of action.

Table 2

Proposed Business Continuity Plan Checklist

LIBRARY SPACE			
Business Continuity	Specific Plan of Action	Person/ Unit/ Office Responsible	Status

Enablers			
Physical Spaces	Improve security measures of valuable assets.	Director's Office, Media and Systems Services, Safety Office, Security Office	
	Create cleaning and sanitation schedules and guidelines in adherence to government and university protocols.	Director's Office, Building and Grounds Maintenance Office	
	Conduct regular preventive maintenance, safety, and security inspections.	Director's Office, Safety Office, Security Office	
Virtual Spaces	Draft websites and social media management plans.	Public Programs Librarian and the Media and Systems Services	
	LIBRARY PROGRAMS AN	ND SERVICES	
			-
Business Continuity Enablers	Specific Plan of Action	Person/ Unit/ Office Responsible	Status
Continuity	Specific Plan of Action Draft specific plans for periodic and limited access of staff and personnel.		Status
Continuity Enablers	Draft specific plans for periodic and limited access	Responsible Director's Office together with the library unit/s	Status
Continuity Enablers	Draft specific plans for periodic and limited access of staff and personnel. Create and study a list of onsite services that can be	Responsible Director's Office together with the library unit/s concerned Director's Office together with the library unit/s	Status
Continuity Enablers	Draft specific plans for periodic and limited access of staff and personnel. Create and study a list of onsite services that can be fully migrated online. Arrange for vehicle services	Responsible Director's Office together with the library unit/s concerned Director's Office together with the library unit/s concerned	Status

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	Preventive maintenance, safety, and security.	Director's Office, Safety Office, Security Office	
Virtual services	Increase support to online services to accommodate increased traffic to maintain efficiency.	Director's Office together with the library unit/s concerned	
	Provide training to increase online services delivery.	Director's Office together with the library unit/s concerned	
	Regular maintenance, monitoring, and backup of online and offline assets.	Media and Systems Services	
Programs and events	Develop innovative ways to deploy programs and events online.	Director's Office together with the library unit/s and committee/s concerned	
	Explore event collaboration options with other libraries and institutions.	Director's Office together with the library unit/s and committee/s concerned	
	TECHNOLOG	Y	
Business Continuity Enablers	Specific Plan of Action	Person/ Unit/ Office Responsible	Status
Information and Communication Technology (ICT)	Invest and assign standard computer equipment and software platforms for each library staff.	Media and Systems Services in coordination with the Information Technology Services Office	
	Deploy Virtual Private Network (VPN) software to access onsite files and servers for security.	Media and Systems Services in coordination with the Information Technology Services Office	

	Provide communication and/or connectivity equipment or plans for staff.	Director's Office, Media and Systems Services in coordination with the Information Technology Services Office	
	Invest in robust security software to project assets.	Media and Systems Services in coordination with the Information Technology Services Office	
	Create a support group to address ICT related-issues and improve digital literacy among staff.	Media and Systems Services in coordination with the Information Technology Services Office	
	Extend remote troubleshooting beyond library specific software, solutions and tools to include user hardware, software and connectivity concerns.	Media and Systems Services in coordination with the Information Technology Services Office	
	Implement best practices in maintaining, updating, and protecting all electronic resources including websites and social media accounts.	Media and Systems Services in coordination with the Information Technology Services Office	
	LIBRARY ADMINIST	RATION	
Business Continuity Enablers	Specific Plan of Action	Person/ Unit/ Office Responsible	Status
Plans, policies, and guidelines	Create guidelines on interim on-site and off-site library resources, client services, and learning support programs.	Director's Office	

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	Send internal and external announcements to update stakeholders (i.e. HDA, virtual announcement board on social media).	Director's Office together with the library unit/s concerned	
	Formalize and implement a business continuity plan, emergency preparedness plan, and disaster risk management plan.	Director's Office together with the library unit/s concerned	
	Review and improve work from home protocols.	Director's Office together with the library unit/s concerned	
Financial Resources	Realign or request budget based on the needs and prioritization.	Director's Office together with the library unit/s concerned in consultation with the University Administration and Accounting Office	
	Include contingency budget for disruption scenarios.	Director's Office together with the library unit/s concerned in consultation with the University Administration and Accounting Office	
Staffing	Expedite hiring process and fill up vacancies as soon as possible.	Director's Office together with the University Administration	
	Upskilling and reskilling of the library staff.	Director's Office, unit heads, staff	
	Provide support for continuous staff promotion.	Director's Office together with the University Administration	
	Encourage staff well-being.	Director's Office, Unit heads, staff	
	Maintain a closed database of personnel contact details and other pertinent information in case of	Director's Office, Unit heads, staff	

	emergency.		
Linkages and Partnerships	Create a directory of all internal and external partners, donors, sponsors, VIPs, and VVIPs with lists of specific involvement.	Director's Office, unit heads, staff	
	Create sponsorship and partner care guidelines (in the event of requesting sponsorship and assistance).	Director's Office together with the library unit/s concerned	

LIBRARY ADMINISTRATION			
Business Continuity Enablers	Specific Plan of Action	Person/ Unit/ Office Responsible	Status
Plans, policies, and guidelines	Create guidelines on interim on-site and off-site library resources, client services, and learning support programs.	Director's Office	
	Send internal and external announcements to update stakeholders (i.e. HDA, virtual announcement board on social media).	Director's Office together with the library unit/s concerned	
	Formalize and implement a business continuity plan, emergency preparedness plan, and disaster risk management plan.	Director's Office together with the library unit/s concerned	
	Review and improve work from home protocols.	Director's Office together with the library unit/s concerned	
Financial Resources	Realign or request budget based on the needs and	Director's Office together with the library unit/s	

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	prioritization.	concerned in consultation with the University Administration and Accounting Office	
	Include contingency budget for disruption scenarios.	Director's Office together with the library unit/s concerned in consultation with the University Administration and Accounting Office	
Staffing	Expedite hiring process and fill up vacancies as soon as possible.	Director's Office together with the University Administration	
	Upskilling and reskilling of the library staff.	Director's Office, unit heads, staff	
	Provide support for continuous staff promotion.	Director's Office together with the University Administration	
	Encourage staff well-being.	Director's Office, Unit heads, staff	
	Maintain a closed database of personnel contact details and other pertinent information in case of emergency.	Director's Office, Unit heads, staff	
Linkages and Partnerships	Create a directory of all internal and external partners, donors, sponsors, VIPs, and VVIPs with lists of specific involvement.	Director's Office, unit heads, staff	
	Create sponsorship and partner care guidelines (in the event of requesting sponsorship and assistance).	Director's Office together with the library unit/s concerned	

	LIBRARY COLLECTION		
Business Continuity Enablers	Specific Plan of Action	Person/ Unit/ Office Responsible	Status
Physical Resources	Create preservation and conservation plans for all resources that are inaccessible.	Archives, Special Collections	
	Specific policy and/or guidelines for the preventive safety and security measures of managing the collections i.e. sanitizing of returned materials, collection maintenance.	Readers' Services and Archives	
Digital Resources	Make digital resources as a top priority in acquisition.	Technical Services and Stakeholders	
	Provision of digital copies and/or bibliographic records of theses and dissertations, faculty publications, etc.	Archives	
	Preventive maintenance, safety, and security.	Media and Systems Services	

	LIBRARY SPACE		
Business Continuity Enablers	Specific Plan of Action	Person/ Unit/ Office Responsible	Status
Physical Spaces	Improve security measures of valuable assets.	Director's Office, Media and Systems Services, Safety Office, Security Office	
	Create cleaning and sanitation schedules and guidelines in adherence to government and university protocols.	Director's Office, Building and Grounds Maintenance Office	

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	Conduct regular preventive maintenance, safety, and security inspections.	Director's Office, Safety Office, Security Office
Virtual Spaces	Draft websites and social media management plans.	Public Programs Librarian and the Media and Systems Services

	LIBRARY PROGRAMS AND SERVICES		
Business Continuity Enablers	Specific Plan of Action	Person/ Unit/ Office Responsible	Status
Onsite services	Draft specific plans for periodic and limited access of staff and personnel.	Director's Office together with the library unit/s concerned	
	Create and study a list of onsite services that can be fully migrated online.	Director's Office together with the library unit/s concerned	
	Arrange for vehicle services for transportation of staff.	Director's Office	
	Coordinate with security offices for handling of inbound and outbound circulation materials.	Director's Office, Readers' Services	
	Maintain and improve existing partial on-premises circulation and services operations.	Director's Office, Readers' Services	
	Preventive maintenance, safety, and security.	Director's Office, Safety Office, Security Office	
Virtual services	Increase support to online services to accommodate increased traffic to maintain efficiency.	Director's Office together with the library unit/s concerned	

	Provide training to increase online services delivery.	Director's Office together with the library unit/s concerned	
	Regular maintenance, monitoring, and backup of online and offline assets.	Media and Systems Services	
Programs and events	Develop innovative ways to deploy programs and events online.	Director's Office together with the library unit/s and committee/s concerned	
	Explore event collaboration options with other libraries and institutions.	Director's Office together with the library unit/s and committee/s concerned	

	TECHNOLOGY		
Business Continuity Enablers	Specific Plan of Action	Person/ Unit/ Office Responsible	Status
Information and Communication Technology (ICT)	Invest and assign standard computer equipment and software platforms for each library staff.	Media and Systems Services in coordination with the Information Technology Services Office	
	Deploy Virtual Private Network (VPN) software to access onsite files and servers for security.	Media and Systems Services in coordination with the Information Technology Services Office	
	Provide communication and/or connectivity equipment or plans for staff.	Director's Office, Media and Systems Services in coordination with the Information Technology Services	

	Office
Invest in robust security software to project assets.	Media and Systems Services in coordination with the Information Technology Services Office
Create a support group to address ICT related-issues and improve digital literacy among staff.	Media and Systems Services in coordination with the Information Technology Services Office
Extend remote troubleshooting beyond library specific software, solutions and tools to include user hardware, software and connectivity concerns.	Media and Systems Services in coordination with the Information Technology Services Office
Implement best practices in maintaining, updating, and protecting all electronic resources including websites and social media accounts.	Media and Systems Services in coordination with the Information Technology Services Office

University A Libraries' strength lies in how the team was able to capitalize on the existing online resources, tools, technologies, and external database support teams to continue with the most of its operations. However, looking beyond the tangible aspect of what allowed University A Libraries to weather through the crisis that the Covid-19 pandemic brought, a huge factor that made it possible was employee resilience and strong leadership. All things considered, University A Libraries is able to push for innovations and defy challenges.

4. Conclusions

Emergencies, disasters, war and terrorism, economic recession, pandemics have long been part of human history. Disruptions come in varying degrees and they could either make or break any institution. Nevertheless, mitigating their impact and averting further damage is possible with thorough preparations, openness to innovation, and its ability to foster a culture of resilience amongst its stakeholders.

Having a strong foresight is essential for an institution to stay ahead of the curve. Foresight in its most concrete sense can be in the form of a BCP. In the case of University A Libraries, interim policies and work plans were put in place in response to the effects brought by the Covid-19 pandemic. More than a year after, the authors of this study moved to revisit the interim policies and work plans in order to formulate a checklist for a possible BCP for University A Libraries.

To conclude, each process must be designed in such a way that it would have the flexibility to adapt in ever changing conditions. They must be anchored to the organization's goals and objectives and not be tied down to technical methodologies and static structures.

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	Survey Questionnaire	emplate
Part 1: Library KRAs and Interim Work Processes	Library Unit	
	Work Plan based on KRAs	 Action Plan A Action Plan B Action Plan C Additional processes that arose during the interim that was initially not in the work plans
	Specific Tasks/ Activities/ Measures Description	 Action Plan A Description Action Plan B Description Action Plan C Description Additional Process Description
	Current Mode of Delivery	Online/ Work From HomeOnsite
Part 2: Assessment Proper	Work Processes Categorization	 <i>Critical</i> Refers to work processes that were highly important and regularly operating tasks that were relevant to the unit and central to their mandate. <i>Essential</i> Tasks that were also highly important, but irregular in their scheduling operations and can be risked being disrupted for a set period of time. <i>Complimentary</i> Tasks that added value to the existing KRAs, but were not deemed to be crucial and can be made unavailable without too much effect on existing processes at any given time
	Deviation/s (changes and adjustments, if there is)	
	Possible Impact	
	Difficulty of Implementation and Transition	5 - Very Difficult 4 - Difficult 3 - Neutral 2 - Easy 1 - Very Easy
	Possible reason/s for the difficulty experienced	
	Efficiency compared to pre- covid processes	5 - Excellent 4 - Very Good 3 - Neutral 2 - Fair 1 - Poor

Annex A: Survey Questionnaire Template

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	Possible reason/s for the efficiency	
Part 3: Dependencies for Continuous Delivery	Resources needed to accomplish the processes.	 Technology (hardware, software, specialized equipment) Supplies Other offices/ external partners/ functions
Part 4: Insight and lessons	Insights or lessons from the current processes compared to the pre-covid processes.	

Annex B:

	Current Mode of Delivery
RS	• All of the work processes are currently fully operating under online or work-from-home arrangements except for limited on-premise operations and service (circulation) which is done onsite twice a week with social distancing and safety protocols in place on a shifting basis.
TS	• All of the work processes are currently fully operating under online or work-from-home arrangements
LAG	• All of the work processes are currently fully operating under online or work-from-home arrangements
ARCH	• All of the work processes are currently fully operating under online or work-from-home arrangements
MSS	• All of the work processes are currently fully operating under online or work-from-home arrangements
DO	• All of the work processes are currently fully operating under online or work-from-home arrangements except for limited on-premise operations such as maintenance of special collections and general building matters

Summarized Responses per Unit for Current Mode of Delivery

Annex C:

Summarized Responses per Department for Work Task Category

	Work Task Category
RS	• Tasks that involve resource management, user communications, training, circulation, and policy drafting are considered critical.

	 Work tasks about creating new guides and resources are considered essential. Tasks about collection development and assessment were complimentary
TS	 Critical services are tasks for procurement, evaluation of purchases and subscriptions, and providing access to databases Cataloging, collection assessment, and staff development are essential tasks RDA in-house policy drafting is considered complimentary
LAG	 The most critical tasks involve budget preparation for the Laguna campus. Essential tasks include reference service, guides and reading lists, developing modules, attending meetings, event management, procurement, and accountability management Staff training, networking and linking with other libraries, drafting guidelines and documentation for services and programs were considered complimentary
ARCH	 Quality control of theses and dissertations and uploading to the repository was considered to be the critical task. Routine indexing, updating of bibliographic records, uploading other digital contents to the online repository are considered essential
MSS	 The most critical and important tasks is the maintenance, monitoring, updating, and testing of library systems and online resources Giving support to library personnel and clients who encounters difficulties is considered an essential Complimentary tasks include advocacies and promotion of optimum electronic resource usage
DO	 Critical tasks include strategic tasks pertinent to library operations, workflow plans, and client support; Staff management such as recruitment and renewal, budget monitoring, procurement, documentation; and continuation of projects such as migration to new ILS and launching of digital repository Training activities, monitoring of various committee deliverables, marketing and promotion, and launching of new initiatives virtually were considered essential tasks

Annex D:

Summarized Responses per Department for Deviations

Deviations	
RS	 Staff from other departments were given online reference and chat-with-a-librarian duties to account for increased online activities Staff development focused training on learning online tools while recruitment and augmentations for staff were indefinitely put on hold Policy drafting and consultations were shifted online Addition of limited and partial on-premise operations for circulation and other services
TS	• No deviations from the current work processes were identified

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LAG	 Project plan for inclusion of RFID in college libraries were expanded to the integrated school as well Work related to accreditation and certification were put on hold due to the pandemic
ARCH	• There were no deviations from the current work plans. However, the task of populating the institutional repository was added to the interim
MSS	• There are no deviations from the current work processes. However, activities greatly increased due to the shift in digital services
DO	 Meetings shifted primarily to online communications Transition to work from home were initiated and staff with unavailable equipment were provided the necessary tools and devices Projects such as the institutional repository were delayed, while other digitization projects were suspended Recruitment was temporarily suspended

Annex E:

Summarized Responses per Department for Possible Impact Upon Disruption

	Possible Impact Upon Disruption	
RS	 Scenarios of reputational damage in the form of complaints from clients who won't be able to access resources Organizational disruption in terms of work continuity were identified Possible disruption to processes due to outdated posted information Financial loss due to the suspension of fines due to the pandemic 	
TS	 Disruption to other units and services due to the delay of delivery of resources Possible reputational damage due to irrelevant and outdated materials 	
LAG	 Disruption to the institution processes and timeline is likely to happen as the majority of tasks include providing services to the teaching faculty members Reputation loss is possible as a result the lack of reference service Financial problems due to delay of budget proposals Resource problems due to non-renewal of subscription and book requests Possible regulatory problems due to non-adherence accreditation requirements 	
ARCH	 Inconsistencies of the entries in the records and database will cause reputational disruption Possible complaints from the users will cause reputational damage Lack of staff development and synergy within the team 	
MSS	• Disruption to the critical tasks will very likely disrupt the whole library and by proxy the university which will result in possible loss of data, reputation, and system structures, as well as financial loss	

• Disruption of overall operations of the library	DO	 New services will not materialize and future plans and growth will be disrupted Low guidance and support to staff, can result in low morale Work contracts will be affected and possible legal and financial issues Financial impact due to budget constraints Disruption of overall operations of the library
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Annex F:

Summarized Responses per Department for Difficulty of Implementation

	Difficulty of Implementation
RS	 5 tasks had a seamless transition, while tasks for providing research trainings for users and staff, and updating manuals and policies, and onsite circulation were deemed to be the hardest to transition For onsite circulation, staffing was the hardest aspect to implement, as this was severely restricted by the University protocols and government guidelines
TS	 Cataloging and processing of physical resources was the hardest to transition as procedures for cataloging was revised Staff development experienced moderate difficulty due to different staff competencies and connectivity issues Other services were transitioned quite easily as there was not much transition to be made
LAG	 Clerical tasks for staff such as attendance, documentation, and staff development were identified to be the easiest to transition due to the availability of online tools and resources Several complimentary and essential projects were the hardest to transition due to deprioritization
ARCH	• The majority of the tasks were either quite easy to implement or no significant changes at all from Pre-Covid
MSS	 Implementation for system-related tasks are relatively easy as the equipment and platform are still in good condition Tasks that provides support to clients were a challenge due to the lack of manpower and staff
DO	 Tasks that were hardest to implement consist of leading the transition of existing services to online as there were various work processes in the library and various protocols to follow, staff management, collection management especially special collections and on-site resources. Budget allocation also poses a challenge as factors to be accounted for keeps changing Coordination for tasks that are already online just needed adjustment but had no problems transitioning

Annex G:
Summarized Responses per Department for Efficiency

Efficiency

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RS	 Majority of the tasks did not have significant change in efficiency as they were done online even pre-Covid 19. But some online services had an increase in efficiency due to heightened online activities Tasks which involves physical material circulation and physical processes had the lowest efficiency rate as the logistics of returning and lending physical materials had become complicated
TS	 Staff development and cataloging tasks saw big increase in efficiency after transition Other critical and essential task experienced little to no change in efficiency due to minimal adjustment made Complimentary tasks were saw a slight drop efficiency due to being deprioritized
LAG	 Tasks which involves face to face client services experienced low efficiency initially due to being constantly put on hold but have now been adjusted and has improved Procurement and management of projects has decreased efficiency due to the difficulty in contacting partners and changing timelines
ARCH	• There were almost no changes for the efficiency of most of the tasks but tasks saw a slight increase such as updating manuals, attending meetings and correcting bibliographic records
MSS	• Efficiency of tasks remained relatively the same
DO	 Coordination tasks, meetings, staff monitoring and general communication saw a large increase in efficiency and convenience with increased online activity Creation of library resources, continuity of plans, projects and services also increased efficiency as there were no need to be on site Work distribution saw no change in efficiency as various staff has different environmental factors Management of Special Collections and Archives has a severe drop of efficiency due to their location being onsite

Annex H: Summarized Responses per Department for Dependencies Identified

	Dependencies Identified
RS	 ICT tools such as laptops and internet connection are required for all tasks as well as constant access to the integrated library system and electronic resources Online communication tools and software are also required Support from systems and database administrators were regularly requested Onsite circulation is also dependent on disinfectant and sanitation supplies, courier services for delivery, security office for incoming and outgoing material inspections, and the administration for general policies for staff entry
TS	• ICT tools such as laptops and internet connection are required for all tasks as well as constant access to the integrated library system and electronic resources

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	 Online communication tools and software are also required Tasks are dependent to external partners, suppliers for resource acquisition, and faculty and students for collection suggestions
LAG	 ICT tools such as laptops and internet connection are required for all tasks as well as constant access to the integrated library system and electronic resources Online communication tools and software are also required Leadership and direction are needed from different offices such as the main library and university administration Major services are dependent to collaboration with faculty members and external partners
ARCH	 ICT tools such as laptops and internet connection are required for all tasks as well as constant access to the integrated library system and electronic resources Online communication tools and software are also required Physical records or physical access to the copies is also required due to the nature of work tasks
MSS	 ICT tools such as laptops and internet connection are required for all tasks as well as constant access to the integrated library system and electronic resources Online communication tools and software are also required Administrative access to library accounts and software Collaboration and support from the Information and Technology Services unit
DO	 ICT tools such as laptops and internet connection are required for all tasks as well as constant access to the integrated library system and electronic resources Online communication tools and software are also required Licensed software for multimedia editing Coordination with university administration, faculty, students, and other offices are required Some services are also dependent on external partners and suppliers

Annex I:

Summarized Responses per Department for Insights or Lessons Acquired _

	Insights or Lessons Acquired
RS	 Patron relied more to the online references which increased engagement and connection with the community Trainings become more accessible, albeit limited to online format The pandemic made the department adapt to the onsite and work-from-home situation, and exercised constant adjustment. Changes to processes and policies should be communicated effectively to all stakeholders
TS	 Difficulty of acquiring resources increased as patrons preferred electronic copies due to the shift to online learnings Adjustment and familiarity in using the new ILS was severely affected as the library is in the middle of implementation when the pandemic struck
LAG	• Developing programs and events that can be done online is a must. However, coordination with other faculty members was difficulty due to increased scheduled online activities and teaching

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	 sessions Communication with stakeholders is very important as well as being open to abrupt changes
ARCH	• There should be a mechanism to provide electronic copies of records and access to archival resources to requestors
MSS	 Adjustment to the new processes for the staff are needed The availability of options of services are important to provide the needs of the users
DO	 Highlighted the importance of and investment towards online/digital resource More self-service and touchless interactions and will shift to virtual alternatives More emphasis on technology training for staff to gain essential technology skills to adapt to the new normal Need to prioritize staff well-being and mental health Adapt to budget cuts and may require long-term financial recovery Need to have disaster and risk plan in place