



Anticipation, coping and adaptation practices for teaching and learning continuity of higher education institutions

 **Filomena T. Dayagbil**

Cebu Normal University, Osmena Boulevard Cebu City, Philippines.
Email: dayagbilf@cnu.edu.ph



ABSTRACT

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The massive disruptions created by the pandemic forced higher education institutions to reconfigure their operations to ensure the continuity of teaching and learning. This study identified the anticipation, coping and adaptation practices of public higher education institutions in response to the challenges during the health crisis. It was the purpose of the study to identify the anticipation, coping and adaptation practices of public higher education institutions in response to the challenges during the health crisis. The study employed the mixed method using the survey and interview. Thirty-seven (37) informants who were involved in managing five (5) government funded public higher education institutions in the Philippines expressed willingness to participate in the study. It was revealed that higher education institutions had low organizational capacity to anticipate crisis. To cope with disruptions, institutional strategies were implemented like a shift to flexible teaching and learning modality, provision for training, psychological and technological support and enhancement of student services. Adaptation initiatives included preparation of continuity plans, development of learning management system, technology enhancement and capacity building activities. Effective planning, leadership and readiness for change were the emerging themes across the resiliency stages of anticipation, coping and adaptation. It is recommended that public higher education institutions should prioritize the crafting of data driven and context based strategic plan to include technology support and budget allocation in order to ensure teaching learning continuity during disasters of any kind. Collaborative leadership and readiness for change also need to be cultivated to foster resilient academic institutions amidst and beyond the pandemic.

Contribution/Originality: This study contributes in familiarizing universities with specific practices to achieve resiliency through anticipation, coping and adaptation to cope with the challenges of the pandemic. Findings provide relevant insights for policy makers and academic leaders in fostering resilience amidst and beyond the pandemic.

1. INTRODUCTION

The COVID 19 crisis has created a new reality that educational institutions are forced to grapple with. The pandemic affected 1.6 billion learners in more than 190 countries while the closures of schools and other learning spaces impacted 94 per cent of the world's student population, up to 99 per cent in low and lower-middle income countries (UNESCO, 2020). During school lockdowns, ensuring continuity in teaching and learning remained a challenge for educational institutions. Educational leaders all over the world responded by moving academic and

related activities online with a sense of immediacy (Aspergen, 2021). However, this new learning modality was coupled with issues and challenges. The greater majority of teachers and students were not prepared for the sudden shift to online modality. Teachers met difficulties with lesson preparation and delivery. Problems such as faculty's knowledge and skills in managing virtual learning environment emerged, since they were mostly products of the traditional learning environment (Bandalaria, 2020). Amir et al. (2020) disclosed that challenges during distance learning include external factors such as unstable internet connection, extra financial burden for the internet quota and internal factors such as time management and difficulty to focus while learning online. Sung, Chang, and Liu (2016) affirmed that insufficient preparation of the teachers is one of the largest obstacles in effectively integrating technology in teaching and learning.

Despite the quick response of academic institutions like making adjustments in lesson modality, training teachers and recalibrating the curriculum, higher education institutions continue to struggle amidst the overwhelming concerns brought about by the health crisis. The pandemic is a test of the resiliency resilience of universities and colleges as they face the emerging challenges of online teaching, learning, research and other student services. Resilience is a widespread concept that enables companies to adapt effectively to unexpected events, bounce back from crises, and foster future success (Yuan, Luo, Liu, & Yu, 2022). The concept of resilience is usually applied to disasters and crisis management (Doern, Williams, & Vorley, 2019; Orchiston, Prayag, & Brown, 2016), economics and business management (Sharma, Rangarajan, & Paesbrugghe, 2020), and individual entrepreneurship (Santoro, Bertoldi, Giachino, & Candelo, 2020). For higher education institutions, resilience is an important capability to survive and thrive amidst organizational challenges and changes. Organizational resilience is a critical success factor whenever unexpected crises happen as most institutions that performed effectively and succeeded in challenging circumstances have manifested organizational resilience (Duchek, 2019; Lengnick-Hall, Beck, & Lengnick-Hall, 2011). The concepts, processes, and frameworks on resilience are extensively discussed in literature (Barabási, 2016; Bhamra, Dani, & Burnard, 2011; Denyer, 2017; Henderson, 2012; Hollnagel, 2017; Hosseini, Ivanov, & Dolgui, 2019; Tortorella et al., 2020). However, the inability to convert the notion of organizational resilience into practical functioning frameworks for organizations, complicates the job of developing more resilient organizations (McManus, Seville, Vargo, & Brunson, 2008).

In the context of higher education, there is insufficient research on how institutions hurdled the challenges of the pandemic, their practices and strategies that facilitate resilience. In the Philippines for example, higher education institutions implemented strategies to address the new realities created by the global health crisis. Efforts to ensure organizational resilience and learning continuity in the midst of COVID19 and future calamities were initiated. However, there is a need for robust research-based evidences on the strategic response of higher education institutions including the practices and change initiatives that were implemented to ensure resilience and teaching learning continuity. Duchek (2019) proposed a framework on organizational resilience. She opines that while her framework illustrates the stages of resilience from anticipation to adaptation, concrete practices during crisis situations could be further explored.

The current study aimed to explore concrete practices of higher education institutions across Duchek's resilience stages of anticipation, coping and adaptation. The framework of Duchek was deemed appropriate since it served as anchor in identifying specific practices of higher education institutions during crisis situations which have not been explored pre-pandemic. Findings could provide insights for policy makers and academic leaders in fostering the resilience capabilities of higher education institutions amidst and beyond the health crisis.

2. THEORETICAL FRAMEWORK

Stephanie Duchek (2019) defines organizational resilience as the organization's ability to anticipate potential threats, to cope effectively with adverse events, and to adapt to changing conditions. The organizational resilience stages of Duchek served as foundational basis upon which this study was anchored. While there were existing

models of resilience, the researcher found Duchek's resilience stages the most appropriate to shed light on the resilience of academic institutions as seen in their strategies and practices to anticipate potential risks, cope with adverse circumstances and adapt to changing conditions.

The pre-crisis stage is what Duchek calls the anticipation stage with three specific capabilities namely: the ability to observe internal and external developments, the ability to identify critical developments and potential threats, and to prepare for unexpected events. She explained that anticipation is the first dimension of organizational resilience. It refers to the ability to detect critical developments within the firm or its environment and to adapt proactively. Madni and Jackson (2009) emphasized the importance of anticipation capabilities for organizations to prevent threatening situations.

The second stage of organization resilience is the coping stage. This refers to an effective handling of unexpected events. The overall ability to cope with the unexpected is closely related to crisis (incident) management and can be separated into two subcategories: the ability to accept a problem and the ability to develop and implement solutions (Smart and Vertinsky 1977; Reilly 1993; Jaques 2007 in Duchek (2019)). Välikangas and Romme (2013) state that resilience facilitates organizations to innovate business models and dynamically adapt to strategic changes.

The third stage is adaptation. Duchek suggests that once the major disruption has been resolved to a manageable level, organizations should be cognitively focused on reflection and learning. This ability refers to adjustments following crises and is directed toward organizational advancement (Mamouni Limnios, Mazzarol, Ghadouani, & Schilizzi, 2014). Recovery or adjustment, as a post-crisis capability, involves remaining flexible and rebuilding primary functions to adapt and recover as early as possible (Tan, Zhang, & Cai, 2019). Behaviorally, this is the time for leaders to implement change initiatives and apply lessons learned from the entire crisis management process, to further enhance the organization's resilience. It is important that academic institutions must be able to reflect on the crisis situation and incorporate the acquired insights to induce organizational change.

The drivers that influence the stages of anticipation, coping and adaptation are resource availability, social resources, and power/responsibility while knowledge base is the main antecedent (Duchek, 2019). The institutions knowledge base informs the anticipation phase (Bartusevičienė, Pazaver, & Kitada, 2021). Moreover, in the process of coping, knowledge and experience assist individuals and organizations in applying and managing responses (Williams, Gruber, Sutcliffe, Shepherd, & Zhao, 2017). Resource availability on the other hand influences the resilience of organizations. Social resources like information sharing, resource interchange, shared objectives and vision, and high levels of support and coordination among workers can serve as critical components to organizational resilience (Andersson, 2018). Power and responsibility can either hinder or promote resilience. One of the most successful practices in adapting to a crisis situation, according to the literature is establishing power based on expertise rather than hierarchies (Lengnick-Hall. et al., 2011).

3. RESEARCH OBJECTIVES

This study identified the practices of public higher institutions during the health crisis from anticipation, coping and adaptation anchored on the resilience framework of Stephanie Duchek. Specifically, it aimed to: 1.) assess the institutional capacity of public colleges and universities in anticipation of possible crisis; 2.) describe the higher education institutions' coping strategies to ensure teaching learning continuity; 3.) analyze the institutions' adaptation practices and 4.) develop emerging themes from the experiences of the key informants along the resiliency stages.

4. METHODOLOGY

The study locale included five (5) public government funded higher education institutions in Central Visayas, Philippines. A mixed method research design using interview and survey methods was utilized in the study. A total

of thirty-seven (37) participants (N=7, Institution A; N=10, Institution B; N=7, Institution C; N=6, Institution D; and N =7, Institution E) gave their consent to participate in the study by answering the survey and participating in the semi-structured interview. The selection of the key informants was based on their involvement in managing and implementing the strategic response of the academic institutions to include the presidents, vice-presidents, planning officers, risk reduction officers, academic deans, and administrative officers.

4.1 Questionnaire

To gather quantitative evidence on the parameters of resilience along three resilience stages of anticipation, coping and adaptation, the informants answered the researcher made questionnaire comprising of three parts. The first part assessed the capacity of higher institutions to anticipate crisis. The indicators were culled from the organizational capabilities dimension of Duchek's anticipation stage like the ability to observe internal and external developments, identify critical developments and potential threats, and prepare for unexpected events. The second part entailed the respondents to list down institutional strategies implemented to cope with the crisis and the third part pertained to the adaptation practices of institutions after crisis situations to ensure organizational growth.

The instrument was validated by three expert practitioners in the fields of organizational resilience and disaster mitigation.

4.2. Interview

Semi-structured interviews were conducted among the 37 key informants to delve deeper into their institutional practices in anticipation, coping and adaptation stages and the possible antecedents or drivers of resilience. in higher education institutions. According to Creswell (2013), semi-structured interviews are considered an important data collection tool as these interviews provide relaxed and spontaneous opportunities for participants to share their experiences and allow for data analysis, validity checks, and triangulation. Interview recordings were transcribed, coded and analyzed. Themes were generated using the Braun and Clarke (2006) six step approach to thematic analysis namely: familiarization with data, generation of initial codes, searching for themes, reviewing themes, defining and naming the themes, and producing the report.

Before the data collection, the ethics clearance for the study was obtained and key informants' informed consent was sought.

5. RESULTS AND DISCUSSION

Being prepared for disaster means an organization is equipped in dealing with unforeseen adversity, ready to cope with unexpected situations, adapt and thrive during and after tribulations. The following are the results presented according to the specific objectives of the study namely: the academic institutions' capacity to anticipate crisis; coping strategies for teaching learning continuity and adaptation initiatives to promote resilience. Emerging themes were also culled based on the participants' experiences along the three resilience stages of anticipation, coping and adaptation.

5.1. Organizational Capacity to Anticipate Crisis

Key informants rated their respective institutions on the capacity to anticipate risks as shown in Table 1. The capacity to observe internal and external threats and prepare a plan in anticipation of crisis are part of the specific capabilities in the anticipation stage (Duchek, 2019). However, those capabilities were not manifested among higher education institutions as seen in the lack of environmental scanning, scenario planning and the absence of learning continuity plans. Planning increases resilience when crisis happens as it facilitates mutual understanding among those involved in the process of preparation (Crichton, Ramsay, & Kelly, 2009).

Table 1. Organizational capacity to anticipate crisis.

Organizational capacity parameters	Public higher education institutions						Interpretation
	A	B	C	D	E	Weighted average	
1. Conduct of environmental scanning	1.7	1.4	1.5	1.3	1.42	1.46	Lack of organizational capacity
2. Conduct of scenario planning	1.85	2.5	1.71	1.16	1.14	1.75	Lack of organizational capacity
3. Presence of learning continuity plan	1.28	1.2	1.14	1.0	1.28	1.18	Lack of organizational capacity
4. Availability of disaster management plans	4.42	4.3	4.14	3.66	4.14	4.15	High organizational capacity
5. Availability of personnel to respond to the crisis	3.42	3.5	3.42	2.63	3.14	3.26	Moderate organizational capacity
6. Opportunities for university personnel to attend disaster risk mitigation trainings, and workshops	3.14	3.4	3.14	3.16	3.28	3.24	Moderate organizational capacity
7. Budget allocation	2.71	2.4	2.42	2.16	2.57	2.45	Low organizational capacity
8. Availability of infrastructure/Facilities to respond to disasters	2.57	2.3	2.14	2.0	2.14	2.24	Low organizational capacity
Average:						2.46	Low organizational capacity

Note: Interpretation: 4.21 – 5.00 Very high organizational capacity; 3.41 – 4.20 High organizational capacity; 2.61 – 3.40 Moderate organizational capacity; 1.81 – 2.60 Low organizational capacity; 1.00 - 1.80 Lack of organizational capacity.

However, public colleges and universities in the Philippines revealed high organizational capacity on the availability of disaster management plans. Since the Philippines is among the countries most at risk to climatic threats and weather-related events (Pulhin, Peras, Pulhin, & Gevaña, 2016), government agencies including state funded higher education institutions have protocols and processes on disaster risk reduction and mitigation. The Philippine Disaster Risk Reduction and Management Act of 2010 (DRRM Law) is the basis for university wide policies and plans on disaster management. Interviews with key informants across five institutions revealed that although there were existing plans and programs on disaster management and mitigation, these were not reviewed and assessed in preparation for future calamities. Contingency and learning continuity plans that enabled timely, effective and appropriate responses to any disasters were not prepared.

“We focused our strategic directions on achieving excellence in instruction, research and extension. Disaster risk reduction management (DRRM) plans are left to the focal person,” said one official. (P4)

“The university reviewed and monitored targets on our deliverables like licensure passing percentage of graduates, employment, research, etc. But I couldn’t remember monitoring and updating our DRRM plans or prepare continuity plans,” corroborated by another official. (P8)

The academic institutions showed moderate organizational capacity in preparing faculty and students for possible crisis. Annual earthquake and fire drills to prepare students and academic personnel for calamities were conducted in colleges and universities as required by law. In one university (C), selected faculty and staff were sent to Japan for capacity building on risk mitigation. During the semi structured interview, it was further revealed that disaster risk plans and trainings conducted in the five academic institutions focused on managing natural and man-made calamities. Plans on how to manage other types of crisis such as the pandemic were not evident. Kendra and Wachtendorf (2003) believe that organizations achieve resilience through preparation that facilitates the development of capabilities and functions necessary to deal with any kind of unexpected event.

“Most of our disaster mitigation policies are geared towards calamities caused by weather conditions like typhoons, etc. Nothing has prepared us for the COVID 19 pandemic” says another official of the university. (P20)

Moreover, the results showed that infrastructure facilities to effectively respond to crisis situations were rated low which can be attributed to the minimal budget allocation for disaster risk management among public higher education institutions. Resource allocation as one of the drivers of resiliency remains wanting for public higher education in the Philippines.

The overall results revealed that public higher education institutions had low organizational capacity to anticipate risks. The result could become the basis for policies and initiatives that enhance the anticipation capability of institutions along the organizational capacity parameters. Yuan et al. (2022) reiterated that being ready for disruptions allows anticipation of future disruptions and provides the potential to deal with unknown or unpredictable turbulence.

5.2. Coping Strategies for Teaching Learning Continuity

Table 2 showed the coping strategies and initiatives implemented by the public higher institutions in ensuring teaching learning continuity amidst the pandemic.

Table 2. Coping strategies for teaching and learning continuity.

Strategic areas	Public higher education institutions				
	A	B	C	D	E
Instructional modality	Full online teaching then transitioned to flexible modality	Online classes then transitioned to flexible modality	Modular instruction	Modular instruction	Online learning then transitioned to flexible modality
Stakeholders consultation	Institutional survey	Survey and stakeholders consultation	No consultation	Survey for students and faculty	Survey and interview
Capacity building	Faculty training and virtual workshops	Capacitating teachers and conduct wellness webinars	Training and wellness sessions of faculty	Faculty capacity training and mental health session	Workshops and webinars for faculty
Learning management support	Used the learning management system (LMS)	Adopted an LMS	Did not adopt online learning (Distributed physical copy modules)	No LMS as modular instruction was used	Used LMS
Provision for allowance and budget	Free packet Wi-Fi for students and faculty	Connectivity allowance for faculty	Did not provide due to limitation of budget	No provision due to budget limitation	Internet allowance for faculty
Provision for online resources	Online access to library resources	Online access to library resources	No online library services	No online library services	Online access to library resources
Psychosocial support	Webinars on wellness	24-hour tele counselling and communication center	Mental health seminar	Health and wellness webinars	Communication center
Technology enhancement	Upgraded technology infrastructure	Created center for innovative teaching and learning	Enhanced the bandwidth in preparation for flexible modality	Requested support from CHED to upgrade facilities for blended learning	Increased connectivity bandwidth

5.2.1 Instructional Modality Shift

When lockdowns were implemented, public higher education institutions shifted to online and modular instruction. Prior to the decision on what teaching and learning modality to adopt, four public institutions (A, B, D, E) conducted surveys among students and faculty as bases on how best to continue learning amidst the pandemic. Institution C did not conduct any consultation. One key informant of institution C said, “How we wish we consulted the students and parents so complaints could be avoided. But our President took so long to decide” (P14). Two academic institutions (C, D) adopted the modular instruction, as COVID cases were minimal in their respective localities. For universities that opted for modular instruction, the challenge was the crafting of modules and its reproduction.

“The teachers are not prepared from face to face instruction to modular instruction especially in the preparation of modules”. (P29)

Three public universities (A, B, E) conducted their classes online at the onset of the pandemic. However, the initial implementation of the online learning among the three universities was met with various challenges. Not all students were able to attend online classes due to intermittent connectivity in their homes. This was affirmed by other officials interviewed since many places in the Philippines and in Central Visayas particularly, have intermittent or no internet connectivity which deprived the students from attending online classes. Some students had no gadgets (computers/laptops) for online classes. For learners with gadgets, payment for Wi-Fi or purchase of internet load was also a problem. As affirmed by Amir et al. (2020), challenges during distance learning include unstable internet connection and extra financial burden for the internet expenses.

Cognizant of the challenges in online learning, the Commission on Higher Education (CHED), an agency mandated to supervise higher education in the country, issued memorandum order (CMO) 4 s 2020 on the guidelines in the implementation of flexible learning that guided higher education institutions as they migrated into flexible learning modality. Flexible learning is defined as a pedagogical approach allowing flexibility of time, place and audience but not solely focused on the use of technology (Cassidy et al., 2016). The flexible teaching and learning modality provides options for the learners. Responding to students' needs, institutions A, B and E shifted to the flexible modality in the last quarter of 2020. Students with connectivity attended the synchronous classes. Those with limited connectivity either joined the synchronous or asynchronous classes. Learners who did not have access to technology were given copies of the learning modules. These modules were distributed to the respective barangays or municipalities where students resided with the assistance of the local government officials. Specific schedule for distribution and retrieval of modules was provided.

5.2.2. Conduct of Capacity Building Activities

Trainings, upskilling and reskilling of faculty members were initiated by the five public institutions (A, B, C, D, E) to capacitate the teachers in the changing scenario in teaching and learning. The teaching staff attended trainings and workshops to acquire the needed competencies on how to teach effectively using various teaching and learning modalities.

Some of the webinars and virtual workshops attended by the faculty across the five institutions were the following; engaging strategies for virtual class (A, B, E), how to make self-instructional learning modules (B,C,D), how to use the learning management system (A,B,E), protocols for blended learning (A,B,C,D,E), formative and summative assessment (A,B,C,D,E), syllabi adjustment and flexibility anchored on outcomes based education (A,B,C,D,E), conducting synchronous and asynchronous classes (A,B,E).

One official of university B said that their faculty members were also retrained to map the outcomes of the courses so only the essential learning competencies were taught and assessed. Student virtual orientations were initiated on the first day of classes (A, B, E).

5.2.3. Support for Students and Faculty

As lockdowns were extended and face to face classes became impossible, institutions A, B and E provided support in terms of providing connectivity allowance and or connectivity kits for faculty, students and non-teaching staff. The learning management systems (LMS), a necessary component of flexible learning modality was put to use by three academic institutions (A, B, E). Manuals on the use of LMS and guidelines on the flexible learning and teaching were provided to the students and faculty for easy reference as they navigated in the new normal of teaching and learning. Virtual orientations among students and faculty were also conducted. Since the students and faculty could not go to the library for research purposes, three public institutions (A, B, C) provided online access to library resources. One institution (B) initiated book delivery service and drop in center.

All the five institutions conducted psychosocial support for the faculty, students and non-teaching staff and other stakeholders through free webinars on mental health and wellness. Tele counselling for institution B was made available for students, staff or parents who needed guidance or somebody to talk with amidst the pandemic. Two public universities (B, E) launched the 24-hour communication hotline to take care of students' questions and queries amidst the pandemic.

5.2.4. Technology Upgrading

One of the challenges as universities shifted to flexible learning was technology availability. With the current health crisis and the shift of learning delivery, the challenge was how to provide an inclusive IT infrastructure to provide quality education for all learners (Internet access and education: Key considerations for policy makers, 2017). To respond to the flexible learning modality, the five (A,B,C,D,E) public higher education institutions conducted an inventory of in-school infrastructure facilities and equipment for online and blended learning modes. One university (B) established the Center for Innovative Flexible Learning (CIFL) as the central hub for the institutions blended learning. However, for a small college (D) with minimal budget from the government, IT infrastructure upgrading was a problem. To assist public education institutions, the government through the Commission on Higher Education (CHED) allocated financial grants to state colleges and universities to develop their technology infrastructure. CHED issued memorandum order no 9 s 2020 on the Guidelines in the Allocation of Financial Assistance for State Universities and Colleges for the Development of smart campus provided in Section 10 (i) of Republic Act (RA) 11494.

5.2.5. Reconfigured Support Services

To continue the delivery of services during the health crisis, the higher education institutions reconfigured their support to operations as shown in [Table 3](#).

Table 3. Support services amidst the pandemic.

Public higher education institutions					
	A	B	C	D	E
Student services	Online enrolment and request of records	Online enrolment and request of records	Limited face to face enrolment and processing of documents	Limited face to face enrolment	Online enrolment
Employee support	Flexible work from home schedule for non-teaching staff	Flexible physical reporting for non-teaching staff	Flexible reporting for support staff	Limited physical reporting for staff	Flexible work from home scheme

Before the pandemic, most of the services of public higher education institutions like enrolment, faculty loading, request for records, payments, and academic consultations were done face to face. During the pandemic, support services were converted to online and done remotely for institutions A, B and E. As other areas had few cases, the two institutions (C, D) implemented the limited face to face enrolment and delivery of student services. The work from home scheme was practiced and employees adopted the flexible schedule of reporting for work.

“We cannot risk the safety of our faculty, students and non-teaching personnel. So enrolment, request for records, thesis advising and other services have to be done online”, said one official. (P22)

It could be gleaned from the results that Duchek’s social resources as drivers of resilience were manifested in the implementation of solutions/strategies during the coping stage. These were evident in the sharing of library resources, psychosocial support for students, faculty and staff, capacity building activities, concern for safety and coordination among stakeholders. Further, resource allocation an enabler in organizational resilience was evident in some universities (A, B, E) as they transition from coping to adaptation stage.

5.3. The Adaptation Initiatives

Adaptation happens when the organization has moved beyond the coping strategy. This ability refers to adjustments following crises and is directed toward organizational advancement (Mamouni Limnios et al., 2014). Table 4 showed the adaptation initiatives of public higher education institutions.

Table 4. Public higher education institutions’ adaptation initiatives.

Public higher education institutions					
	A	B	C	D	E
Adaptation initiatives	Prepared business continuity plans	Enhanced strategic plans	Conducted intensive mentoring and coaching for faculty	Prepared learning continuity plan	Prepared learning continuity plan
	Upgraded technology infrastructure	Developed own learning management system	Procured learning management system	Procured learning management system	Pursued trainings for faculty
	Upgraded the learning management system	Enhanced campus connectivity	Improved internet connectivity	Intensified training of faculty	Hired personnel who are information technology experts
	Enhanced campus connectivity	Pursued smart campus project	Prepared continuity plan	Upgraded technology	Improved connectivity
		Applied for distance learning program	Pursued professional development activities of faculty		Upgraded learning management system

As part of the adaptation process, one university (B) prepared the strategic plan that incorporated long term changes in the conduct of teaching and learning in the new normal. As way forward even without the threat of pandemic, institution B decided to reconfigure the schedule of students so they report to the campus for three (3) days face to face classes and the rest are conducted asynchronously. This strategy is cost effective for both students and teachers. Vălikangas and Romme (2013), state that resilience facilitates organizations to innovate business models and dynamically adapt to strategic changes. The same institution applied for accreditation of programs via distance learning as modality in teaching and learning even beyond the pandemic.

During the interview, majority of the informants affirmed that they are in the process of preparing learning continuity plans (A, B, C, D, E) to anticipate, cope and adapt whenever disruptions happen.

“This pandemic taught me that we need to plan and prepare for the unexpected to thrive post pandemic”. (P19)

“Having a leader who is pro-active and collaborative allow institutions to thrive. We are just glad we have a very good university President who takes the lead during challenging times.” (P14)

Learning from the crisis, institutions A, B, C, D and E started enhancing and developing their own learning management system (LMS) incorporating the feedback of the faculty and students to effectively respond to the new normal in teaching and learning. Since the Philippines is prone to calamities, developing an effective LMS could facilitate learning continuity whenever disasters strike again. They also intensified the trainings and capacity building activities for personnel to be ready for future calamities. Upgrading of internet connectivity in the campus (A, B, E) is ongoing to support teaching and learning in the new normal. Academic leaders of two institutions (C, D) admitted that they needed to sit down and plan their ways forward for the institution.

“It has been two years since the pandemic started. Honestly, we are still caught in the cycle of responding to emerging challenges amidst the pandemic. And here comes typhoon Odette, which caused destruction to our buildings and classrooms. (P26)

From the narratives of the informants, most public higher institutions need to plan conscientiously and implement long term innovations directed toward organizational advancement. Although some universities have started implementing changes that enable the institution to thrive post pandemic, leaders need to reframe organizations to thrive in the new normal. To reframe is to look at the same thing from multiple lenses or points of view. Reframing is a powerful tool for gaining clarity, regaining balance, generating new questions, and finding options that make a difference (Bolman & Deal, 2017). Caldicot (2014) considers reframing as vital for leadership and must involve skill sets like grasping difficult concepts quickly, synthesizing data that creates new insights and building teams that can generate future scenarios different from the world as it is today.

5.4. Learning from the Crisis: The Emerging Themes

The study aimed to generate emerging themes based on the narratives of key informants as their respective institutions hurdled the challenges of the health crisis. The narratives of the informants revealed the following emerging themes.

Theme 1 The role of effective planning

The COVID 19 pandemic is something that is never anticipated making it very challenging to navigate through crisis situations. Dominant in the narratives of the informants was the recognition of effective planning at the organizational level to mitigate risks. Academic leaders believed that public higher institutions need to plan conscientiously and implement long term innovations directed toward organizational advancement to enhance the institutions' resiliency. Across the three stages of the resilience framework of Duchek, effective planning is seen as important component that enhances the anticipation, coping and adaptation capability of academic institutions.

“This pandemic taught me that if we had a plan on what to do and how to continue students' learning during health crisis and beyond, our institution would not be groping in the dark.” (P34)

“We need to include in the institutional plan risk preparedness, mitigation and learning continuity to prepare for any disaster or crisis.” (P22) “We have to revisit and update our policies and plans to prepare the institution whenever disasters strike again.” P 27

“When the pandemic started in China in the later part of 2019, we never reviewed our protocols and plans in case the pandemic might reach the Philippines and Cebu specifically. When the pandemic hit us in March of 2020, all of us in the university were caught off guard because of the absence of planning and preparation.”(P31)

Theme 2 Collaborative and proactive leadership

The prevailing sentiment among the key informants was the importance of proactive and collaborative leadership in times of crisis. To ensure teaching learning continuity and achieve organizational resilience, leaders have to be collaborative, decisive and proactive.

“Leaders in times of crisis have to act fast to mitigate risks” (P2)

“Consultation among stakeholders especially on how to cope with the crisis should be done by the academic leaders.” (P12)

It was revealed that leadership is an important element that drives success across the resiliency stages of anticipation, coping and adaptation.

Theme 3 Readiness for Change

The pandemic has created a new reality in teaching and learning that provides options for flexibility. In the overall narratives informants repetitively mentioned the new normal in teaching learning which is a combination of face to face and online engagement. As way forward even without the threat of pandemic, the informants believed that to be relevant and resilient post pandemic, higher education institutions and their stakeholders must be ready to accept the emerging reality in learning modality. Capacity trainings of faculty can be rationalized to focus on engaging students in the new normal of teaching and learning.

“The new normal of blended online and off-line instruction is here to stay so we have to embrace it,” one official emphasized. (P36)

“The flexible learning modality is effective as it is inclusive and provides options for the students.” (P23)

“Using a combination of online and modular instruction even when this health crisis is over, makes the university thrive” (P29).

6. CONCLUSION AND RECOMMENDATIONS

Fostering public higher education institutions’ resilience is attributed to their capacity to anticipate risks, implement coping strategies and adapt initiatives for the academic sector to survive and thrive amidst the pandemic. There is evidence of low capability among public higher education institutions to anticipate crisis. The role of effective planning and preparation of continuity plans in response to the changing environmental developments and threats is seen as important element in the anticipation stage of resilience. This study has shown that the pandemic becomes the breeding ground for innovations and strategic actions as universities cope with the health crisis by implementing immediate solutions and strategies to ensure continuity in teaching and learning. Long term adaptation initiatives that promote organizational growth have been evident. These strategies and initiatives are contextualized in response to the unique conditions of the respective higher education institutions.

Moreover, this research revealed emerging factors that enhance the resilience capacity of public colleges and universities across Duchek’s stages of anticipation, coping and adaptation. First is effective planning. In anticipation of future calamities, higher education institutions must prioritize the crafting and institutionalization of the data driven and context based strategic plan to guide the academic sector and ensure teaching learning continuity during disasters of any kind. The institution’s strategic plan needs to be continually assessed and updated anchored on environmental scanning, analysis and scenario building. Corresponding budget and appropriate infrastructure to support the plan should be provided. The second factor is leadership. Organizations should invest on the capacity building of academic leaders to navigate successfully through crisis situations. Third is readiness for change. These emerging factors that foster resilience are important considerations for policy makers and academic leaders as they hurdle the challenges amidst and post pandemic.

This study has shown that the pandemic becomes the breeding ground for innovations and strategic actions as universities cope with the health crisis. Higher education institutions implemented immediate solutions and

strategies like the shift to flexible teaching and learning modality, provision for training, psychological and technological support and enhancement of student services to ensure continuity in teaching and learning. Long term adaptation initiatives to include the preparation of continuity plans, development of learning management system, technology enhancement and capacity building activities that promote organizational growth have been evident. These strategies and initiatives are contextualized in response to the unique conditions of the respective higher education institutions.

Moreover, this research revealed emerging factors that enhance the resilience capacity of public colleges and universities across Duchek's stages of anticipation, coping and adaptation. First is effective planning. It was found out in the study that academic institutions lacked strategic plans whenever crisis such as the pandemic happens. In anticipation of future calamities, higher education institutions must prioritize the crafting and institutionalization of the data driven and context based strategic plan to guide the academic sector and ensure teaching learning continuity during disasters of any kind. The institution's strategic plan needs to be continually assessed and updated anchored on environmental scanning, analysis and scenario building. Corresponding budget and appropriate infrastructure to support the plan should be provided. The second factor in enhancing organizational resilience is leadership. During the pandemic, pro-active and collaborative leadership was identified as important factor for the academic sector to survive and thrive. Organizations should invest on the capacity building of academic leaders to navigate successfully through crisis situations. The third factor for organizational resilience is readiness for change. The study revealed the importance of embracing change and adapting to the changing scenarios of teaching and learning. These emerging factors that foster resilience are important considerations for policy makers and academic leaders as they hurdle the challenges amidst and post pandemic.

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