Decision-making Process at Nazarbayev University During the Covid-19 Pandemic

by

Dina Zhukenova, Dina Saparova, Nurgul Kussainova

Supervisor

Professor Zhanibek Arynov

Master's Project

Paper submitted in partial fulfillment of the

Degree of Master of Public Administration

Graduate School of Public Policy

Nazarbayev University

Astana, Kazakhstan

19 November 2023

ABSTRACT

The rapid and unexpected onset of the COVID-19 pandemic presented a huge challenge globally, prompting nations and institutions to swiftly implement restrictive measures in March 2020. The impact of the pandemic reached various sectors, notably affecting education. This study delves into the decision-making process at Nazarbayev University in Astana, Kazakhstan, during the pandemic of COVID-19. Addressing two key research questions, the study investigates how decisions were made at the university during the crisis of COVID-19 and how those decisions were perceived by the community members. Employing a qualitative research approach and a comprehensive framework, the study comprises 23 interviews with key decision-makers and university community members directly affected by those decisions. The findings, analyzed within the established conceptual framework, underscore that setting clear priorities, fostering collaboration among stakeholders, centralizing decision-making, and implementing effective communication strategies were the core elements in the decision-making process at Nazarbayev University during the pandemic. Recommendations derived from the findings advocate for improved communication and enhanced engagement with broader stakeholders.

TABLE OF CONTENTS

List of Appendices

Appendix 1	Sample of the interview questions for decision makers
Appendix 2	Sample of the interview questions for community members

Glossary of terms

RK	Republic of Kazakhstan
HE	Higher Education
HEI	Higher education institutions
SE	School Education
OECD	Organization for Economic Cooperation and Development
UNESCO	The United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
WHO	World Health Organization
WTO	World Trade Organization
RAAG	Risk Assessment Advisory Group
PCR	Polymerase chain reaction
IAU	International Association of Universities
NVIVO	Computer Assisted Qualitative Data Analysis Software
RDC	Republican Diagnostic Center

1. INTRODUCTION

The pandemic of Coronavirus-2019 began instantly and was unpredictable for the whole world. Starting in China in December 2019, the virus quickly spread to all countries, including Kazakhstan. Due to the fact that at that time there was no single treatment protocol, no special medicines and no vaccines against COVID-19, the disease spread at a tremendous speed, causing irreparable impact on different spheres and the lives of people around the world (Maital, 2020, Singh, 2020). In March 2020 the World Health Organization (WHO) (2020) declared the virus as a pandemic. There was not a single state that was fully prepared for such a challenge. Following the recommendations of the WHO (2020), countries began to impose restrictions on mass gatherings, closing almost all institutions and businesses and introducing lockdowns reduce the number of infected people and thereby help the healthcare system. However, the pandemic's impact extended far beyond the healthcare sector, with various other domains experiencing immediate or delayed consequences (Gan et al., 2020).

The COVID-19 pandemic had a profound impact on the global education system, resulting in widespread disruptions in traditional learning methods (Tarkar, 2020). In response to this global health crisis, organizations such as the WHO, UNICEF (2020), and local government institutions advised countries, including Kazakhstan, to adopt a series of measures aimed at containing the spread of the virus. One of the most significant measures was the rapid shift from traditional in-person education to online learning, ensuring the continuity of education while prioritizing safety. The significance of this swift transition from offline to online learning is undeniable. The COVID-19 pandemic catalyzed a transformation in the global education landscape (Abdallah et al., 2022). Many countries, including Kazakhstan, adopted this approach to enable students to continue their education while safeguarding their well-being. However, this rapid transition to online learning introduced novel challenges for both students and educators, necessitating swift adaptation to this new educational paradigm (Adedoyion et al., 2020)

Nazarbayev University, situated in Kazakhstan's capital, Astana city, is a leading research university in the region (Nazarbayev University, 2023). Established in 2010, the university is committed to fostering intellectual growth, research excellence, and innovation. Its campus-style setting attracts students from various backgrounds and cultures, creating a

vibrant and multicultural learning environment. However, the onset of the COVID-19 pandemic in 2019 presented Nazarbayev University, like institutions worldwide, with an unprecedented challenge. The university found itself at the forefront of vital decision-making processes, making critical decisions regarding campus operations and regulations, notably transitioning from traditional face-to-face learning to online education, aimed at ensuring the safety and well-being of its community while maintaining academic continuity (Nazarbayev University, 2020).

Given the extraordinary circumstances presented by the COVID-19 pandemic, this research study is dedicated to examining the decision-making process in crisis situations and the implementation of campus regulations at Nazarbayev University by seeking and highlighting the critical elements and factors influencing the decision-making processes. Our study revolves around two primary research questions: firstly, how were the decisions made at Nazarbayev University during the COVID-19 pandemic? Secondly, how were those decisions perceived by the university community?

Despite the importance of understanding and improving decision-making during crises, there is a notable gap in research that specifically addresses the decision-making processes in higher education institutions like Nazarbayev University during unprecedented events such as the COVID-19 pandemic. To fill this gap, our research employs a qualitative methodology, conducting in-depth interviews to capture perspectives from key stakeholders actively engaged in decision-making processes, as well as those directly affected by those decisions. By employing a framework that combines elements from existing models, our findings underscore the significance of setting clear priorities, fostering close collaboration, implementing centralized leadership, and maintaining effective communication as important factors in navigating crisis situations.

The structure of the paper is organized as follows. First, is introduction part, then we provide review on the existing literature on the COVID-19 impact on education sphere, including the transition to online learning, literature review on Nazarbayev University, which highlights the measures that were taken by the university during the COVID-19 pandemic and literature on the decision-making process in crisis. The conceptual framework that we follow is introduced in this section as well. The third part is a methodology, which details the qualitative research approach, including interviews with decision-makers at Nazarbayev

University during the pandemic of COVID-19, and those who were affected by those decisions. The fourth part is our findings, which presents and analyzes the insights gained from the interviews within the context of the conceptual framework. The fifth part of the paper provides feedback from the community members. Finally, we conclude the study, summarizing the key findings and providing our recommendations.

2. LITERATURE REVIEW

2.1. COVID-19 and its impact on education

The pandemic of COVID-19 affected almost all the spheres of people's lives globally, including education (Donthu et al., 2020, Daniel, 2020). Different countries implemented a range of strategies and measures to tackle the challenges and uncertainties posed by the COVID-19 pandemic, including lockdowns and social distancing, which led to the closure of schools and other education institutions globally (Pokhrel et al., 2020). While online learning has brought about several positive impacts and outcomes, such as increased digital literacy and better time management, it has also presented a multitude of challenges for educational institutions (Jena, 2020). The process of digital transformation in the education sector, as noted by Kopp et al., (2019), is not a recent phenomenon. However, the global response to the COVID-19 pandemic has accelerated the transition of higher education institutions toward online learning and distance education programs. This shift, as highlighted by Toquero (2020), not only enhances digital literacy but also offers students the flexibility to learn at their own pace.

On the other hand, UNESCO, UNICEF, The World Bank and OECD (2021) conducted a survey of officials from the ministries of education from 143 countries in order to highlight the difficulties of the online learning process and its outcome in different countries. The results show that 87 countries out of 104 report educational losses due to the lockdown. The COVID-19 pandemic led to substantial educational transformations, emphasizing the significance of technology access, parental engagement, and government support. These changes were influenced by the income disparities across countries, with online tools more prevalent in middle-income nations and low-income countries relying on radio and television for learning (UNESCO, 2021). In their study, Tadesse et al., (2020) shed light on the challenges of online education in developing nations. The pandemic exacerbated disparities

between rural and urban students as well as between low-income and high-income students. The authors identified key issues, including inadequate technological and learning infrastructure, digital illiteracy, parents' low educational levels, and a lack of motivation for education among both children and parents.

Among the key impacts of COVID-19 on higher education institutions (HEI), as highlighted in the IAU Global Survey Report by Marinoni et al., (2020), are widespread disruptions in academic activities, research continuity challenges, financial strain in private HEI due to decreased revenues, shifts in assessment methods, impacts on enrollment, and significant disruptions to international student mobility. The report also underscores the importance of better preparing institutions for future crises and to improve their crisis management capabilities, potentially bolstering their resilience and adaptability in the face of potential unexpected challenges in the future.

In the report by Flack et al., (2020) the significant concerns regarding students, including a decline in student well-being, limited access to technology, disruptions in achieving learning objectives, inadequate support from parents/guardians, restricted access to basic needs, learning loss, and increased social isolation are underscored. Lemay et al., (2020) indicate that the challenges associated with transitioning to fully online learning encompass not only technological and instructional aspects and difficulties, but also social and emotional issues resulting from isolation and social distancing.

The new UNESCO report (2022) highlights the impact of the COVID-19 pandemic on education systems worldwide and the challenges faced in achieving education recovery. Since the pandemic affected around 1.6 billion learners, the report highlights the urgent need for a coordinated and sustained effort to ensure education recovery. The report presents evidence-based policy recommendations for countries to support education, including prioritizing safe school reopening, investing more in teacher training and support, addressing the digital divide, expanding learning opportunities, and ensuring education financing. The report also emphasizes the need for collaboration and partnerships between governments, civil society, and the private sector to achieve education recovery, particularly for the most vulnerable learners. An important point emphasized by many authors is the concern that COVID-19 may exacerbate pre-existing inequalities among students, thus the global education community must come together to address this risk (IAU, 2020, Flack et al., 2020).

2.2. Responses to COVID-19 at Nazarbayev University

The first case of COVID-19 emerged in China in December 2019, reaching Kazakhstan in mid-March. In response, from March 19 the government announced a lockdown of Astana and Almaty. However, in early January, preliminary discussions and considerations regarding COVID-19 have already started at Nazarbayev University, aiming to anticipate potential consequences and formulate a strategy. From mid-March onward, regular meetings involving deans, directors, and university administration were conducted to deliberate on the global, national, and local COVID-19 situations, aligning responses with government regulations and health recommendations. Due to frequent changes affecting the state and mood of the community, it was decided to introduce its own risk assessment advising group. This group, based on data from the chief sanitary doctor, the epidemiological service, and the Nazarbayev University School of Medicine, assessed the situation on campus according to the established risk levels. Following government orders, the university implemented measures, including sending the students home, closing campuses, and transitioning to remote learning.

"An important message from the President and Provost of Nazarbayev University" emails were sent in March, instructing students to switch to distance learning and vacate dormitories. Subsequent communications kept the community updated on global and local COVID-19 developments and testing information, not only through email but also on the Nazarbayev University web portal's "COVID-19 Updates" section. "Please read all the Attachments in the Nazarbayev University Portal. The Attachments will be updated on a weekly basis, by 3 pm each Monday" (Nazarbayev University, 2020).

On March 14, an email titled "An important message to the teaching staff from the Managing Council of Nazarbayev University - Message No. 3" outlined the institution's response to the first COVID-19 cases in Kazakhstan. It detailed plans for the transition to online learning, scheduled for April 6, 2020. The university mandated remote work for faculty and staff starting March 30th, following the government health requirements.

Deans, leadership, and management of the university conducted town hall meetings with community members to discuss online teaching and work. The Office of the Provost also hosted a podcast for university staff. As the situation became more stable, the subsequent

emails became more concise and detailed, emphasizing the need for everyone to maintain social distancing and wear masks. On May 11, 2020, plans for a phased return to offices were announced, however depending on COVID-19 developments and changes.

Further, when vaccines became available, Nazarbayev University implemented additional measures to promote vaccination among faculty, staff, and students. Protocols were established for individuals opting not to receive the vaccine, leading to restricted campus access. These protocols, intricately linked to survey results, incorporated a "traffic light" (Red, Yellow, or Green Zone) system on campus that operated based on pandemic risk levels. According to that assessment, green was controlled risk, yellow was elevated risk, and red was high risk.

By November 18, 2020, the task force made a decision that spring 2021 semester will be taught online, based on a survey made by the Institutional Research and Analytics team. It is also important to emphasize that, in accordance with the revised COVID-19 risk groups approved by the Governing Council of Nazarbayev University, community members were required to use a specially developed report form to update their vaccination status. There were 5 groups: "Nazarbayev University's Five Vaccination Groups."

Group 1 = G1 (FV) - Fully vaccinated during 6 months after the primary vaccination Within 1 year after revaccination/ (Re)Vaccinated individuals within 6 months after recovery from COVID-19.

Group 2 = G2 (NI) - Individuals with natural immunity - Unvaccinated and diagnosed with COVID-19 (medical certificate, PCR) within 3 months after recovery.

Group 3 = G3 (NFV) - Not fully vaccinated - During 3 weeks after the first dose of the primary vaccine / More than 6 months after the primary vaccination.

Group 4 = G4 (UnV-M) - Not vaccinated due to medical exemptions confirmed by a physician.

Group 5 =G5 (UnV) - Not vaccinated and without supporting documents on COVID-19 disease. No medical exemptions. Over 1 year after the last dose of the vaccination or revaccination. (Nazarbayev University, 2020).

Another important measure of the university were such critical infrastructural adjustments as directing the UMC to repurpose one of its hospitals into a COVID-19 treatment center with

200 beds. Simultaneously, a testing facility at another center was established, was transformed into an observation hospital with up to 50 beds.

In order to be able to weaken the measures of the Nazarbayev University, the community of the university was asked to comply with the guidelines developed by the Nazarbayev University Campus Safety Behaviours and Penalties for Students, Staff, Faculty, Residents, Contractors, and Visitors, as well as quarantine protocols, which were also painted in these letters and attached to some letters for ease of perception.

Email No. 80 was the last email that was sent to the university community with the latest updates and information, since after nine weeks in the Dark Yellow Zone the university campus moved to Clean Yellow Zone based on the advice from the Nazarbayev University Risk Assessment Advisory Group (RAAG). Further, MOH classified Kazakhstan as Green Zone on November 19, 2021. Following this moment, Nazarbayev University began a gradual return to regular operations. Among the 2000 students, the majority have diligently followed guidelines and adapted smoothly. This high level of compliance had allowed Nazarbayev University to confidently prepare for the return of the majority of students in the upcoming semester, although some were still participated in predominantly online classes.

2.3. Decision-making in crisis

The term "crisis" is a widely recognized concept that transcends numerous fields and disciplines. Its versatility allows for its application in a multitude of contexts, making it a fundamental concept in domains as diverse as economics (Castells 1980), business management (Lockwood, 2005), healthcare (Hill et al., 2009), politics (Nimni, 1991), social (Quarantelli et al., 1977) and beyond. Whether it pertains to financial crises, organizational crises, health crises, or even personal crises, the term "crisis" serves as a common thread in addressing and understanding challenges and unexpected events for which there are no contingency plans in place (Iftikhar et al., 2020). Hermann (1963) states that crisis is the situation that "1) threatens high-priority values of the organization, 2) presents a restricted amount of time in which a response can be made, and 3) is unexpected or unanticipated by the organization." The pandemic of COVID-19 is widely considered a health crisis (Pollard et al., 2020, WHO, 2023). UN (2021) emphasized that "the COVID-19 pandemic has caused

the most universal health and socio-economic crisis in recent history", while UNICEF (2021) stated that "COVID-19 is the biggest global crisis for children in our 75-year history".

Scholars interpret the decision-making process as "an action of rational choice" and often associate it with human behaviour. This perspective underscores the idea that decision-making is a cognitive process driven by logical reasoning and choices made based on available information and preferences (March,1994). The decision-making process during a crisis is different, generally is more complex and is influenced by the diversity of human reactions and capabilities (Cooper, 2007). In crisis situations, three key features, that are severe threat, time pressure, and high uncertainty, deviate from routine decision-making process (Boin, 2008). Since these features cannot be addressed using routine procedures, they necessitate rapid decision-making and immediate responses. Boin (2008) states that this often leads to an ad hoc adaptation of bureaucratic structures and procedures, with decision-making tending to centralize in different ways. Centralization can involve concentrating power within a limited number of executives, centralizing decision-making power at the central government level over lower-level agencies, and seeking strong leadership during critical circumstances, sometimes leading to forms of crisis government. According to the author, these adaptations reflect the need for flexibility and quick response when dealing with severe crises.

Iftikhar et al., (2023) state that such important concepts as sense-making, quick response and timely effective decision-making have critical roles in crisis management and decisions made during a crisis can have a lasting impact on an organization or institution.

2.3.1. Proposed Conceptual Framework on decision-making process.

The framework method is considered effective for the analysis of the decision-making process due to the ability to provide structure, clarity, and comprehensiveness to the analysis of decision-making process constituents, leading to more informed and well-considered decisions. Various scholars employ different approaches in attempts assess decision-making process.

Thus, Capano (2020) in his research examines the policy design measures taken by the Italian government in response to the COVID-19 pandemic, focusing on the relationship between policy design and state capacity. Capano argues that policy design is not only a technical

process, but it also depends on the state's capacity to implement policies effectively. The author identifies key policy design measures, namely:

1.   Close collaboration or interaction with people.

2.   Centralization of the authorities in decision-making.

3.   Communication.

He underlines that the lack of these constituents in the case of Italy had led the country to the systematic mistakes during the emergency COVID-19 state.

Similar elements of such framework are traced by Taylor (1983), while analyzing decision-making process in educational institutions. The author argues that policy-making in universities is a complex and dynamic process that involves multiple actors and influences everybody, including faculty, administrators, students, and external stakeholders. He highlights the importance of inclusive collaboration and participatory policy-making processes that involve all relevant stakeholders and ensure transparency and accountability, emphasizing the need for universities to develop effective bottom-up mechanisms for decision-making procedures.

Besides, Fotheringham et al., (2021) share the same ideas, underlining the challenges faced by school leaders in navigating policy development during the COVID-19 pandemic. Clear communication and effective collaboration with all stakeholders are seen as essential for responding to future challenges and managing the change, as well as evidence-informed decision making, ethical considerations, and continuous evaluation and adaptation as key components of the decision-making process.

Sibbald et al., (2009) state that another important element of the successful decision-making process is setting the clear priorities. Effective priority setting is vital for the efficient allocation of resources and the delivery of quality services during the crisis. Once individuals or groups of decision-makers have made sense of a crisis situation, they need to determine which aspects or factors are most critical or urgent.

As a result, in our research, we made a deliberate choice to bring together the key and most critical elements and components of effective decision-making within the context of crisis situations. As a consequence, our framework encompasses the following elements:

1.   Set clear priorities.

2.   Close collaboration among stakeholders.

3.   Centralization of the authorities in the decision-making.

4.   Communication.

The literature reviewed highlights the diverse range of perspectives and research on the challenges and key elements of decision-making process in crisis situations. To address these complex issues, we propose this comprehensive framework, integrating the most important components of effective decision-making. This framework has served as the foundation for our study about decision-making process during the COVID-19 pandemic at Nazarbayev University.

3. METHODOLOGY

The methodological design of the research presents qualitative analysis of the decision-making processes during COVID-19 at Nazarbayev University. We believe that it is crucial to study and examine the role and impact of decision-makers within emergent situations like the pandemic, especially in educational organizations to gain a better comprehension in terms of overcoming difficulties related to COVID-19 times, continue educational process and even create better educational policies and practices that are more effective and equitable in the future.

Indeed, the role of decision-makers is significant in the context of future success. For instance, James (1996) highlights that decision-making processes are directly related to decision success. Managers wield considerable influence over the success of strategic decisions and, consequently, the prosperity of their organizations, based on the approaches they adopt for critical decision-making. Moreover, James (1996) underlines the impact of environmental instability in terms of organization theory. In unstable environments, the influence of decision-makers on the future success of the organization is stronger compared to stable environments. Thus, COVID-19 emergent situation had double pressure on the Nazarbayev University decision-makers.

The main data for our research was collected through semi-structured interviews. Many scholars such as Tansey (2007) argue that interviewing high-level decision-makers is particularly useful for understanding decision-making processes in complex policy areas. The author underlines that this method can provide access to key decision-makers and provide the collection of in-depth, qualitative data that is necessary for understanding

complex decision-making processes. Besides, interview has allowed our research data to be more flexible. This has helped us to tailor our questions to the specific decision-making process being studied. Additionally, interviews have provided rich qualitative data that have given us understanding of the reasons and factors behind the decisions made. Therefore, this approach has helped us to see the whole picture of decision-making process in the framework of the pandemic pressure.

For our interviews, we have defined two major target groups: Nazarbayev University decision-makers, consisting of top management, heads of structural divisions, which were responsible for liabilities, connected to the pandemic arrangements; and Nazarbayev University community members, namely international and local staff, students, faculty members. We prepared separate sets of questions for each target group (Appendices 1,2). In our interviews, we focused on the four constituents of the conceptual framework that we discussed above:

1.   Set clear priorities.

2.   Close collaboration among stakeholders.

3.   Centralization of the authorities in the decision-making.

4.   Communication.

Overall, we have conducted 23 interviews, including 14 interviews with Nazarbayev University decision-makers, and 9 interviews with Nazarbayev University community members, who have been influenced by the university decisions. The interviews were later transcribed and coded using the NVIVO software. The coding was done according to the conceptual framework above. Consequently, we have analyzed whether the university (1) set clear priorities, while making COVID-19 related decisions; (2) if all the stakeholders collaborated closely; (3) to extent the decision-making process was centralized; and finally (4) how the communication in the terms of decision-making process was carried out. Eventually, we were able to provide detailed answers to all the above mentioned questions, basing on the results of the NVIVO coding. The findings are discussed in the following section.

3.1. Limitations of the study

Although all the constituents of the conceptual framework have been fully revealed through the interviews and the research questions have been covered, our research project has got its own limitations. First of all, it has relatively small number of interviewees, namely only 23 people. The next possible bias concerns the fact that most of the interviewees have been decision-makers, what has narrowed the scope of assessments. Furthermore, the research analysis has been retrospective due to the official end of COVID-19, so that some details of the pandemic challenges have been missed. Finally, Nazarbayev University has a unique position in comparison to other Kazakhstani universities, thus it is hardly possible to generalize the research outcomes in compliance to other educational institutions in the country.

4. FINDINGS

After conducting an in-depth analysis of data gathered from 23 interviews, our research has identified key factors that played an important role in the decision-making process at Nazarbayev University during the COVID-19 pandemic. We interviewed individuals with diverse roles within the university community, distinguishing them into two primary groups: Decision-makers: This group included top management and heads of structural divisions responsible for making critical decisions related to pandemic management and response. Nazarbayev University community members: This category encompassed international and local staff, students, and faculty members who were the subjects of the decisions and actions taken during this challenging period.

In this section, we present the core findings and insights that emerged from our analysis, specifically focusing on key components within the conceptual framework. Through our analysis of the interviews, we have uncovered several significant findings related to each element of the framework, providing an understanding of the decision-making process at Nazarbayev University during the COVID-19 pandemic.

4.1. Set clear priorities

In crisis situations, such as pandemic, it is important to clearly define the priorities for the development of a decision-making algorithm. Our research participants from the decision-making group underscored the significance of two main priorities that guided their actions

and strategies throughout the COVID-19 pandemic at Nazarbayev University. The first aim was safeguarding the health and safety of the entire community, and second aim was academic continuity of the university.

4.1.1. Health and safety

The first and most important priority while making a decision was safeguarding the health and ensuring the safety of the entire university community. This comprehensive concern for the well-being of students, faculty, and staff, has been the basis of the university's response to the pandemic. For example, as one respondent mentioned: 'during the pandemic, there were two priorities. Priority number one is to keep health of the older population and new communities, students, faculty and staff healthy and well.' (Interviewee 8, decision-maker). This viewpoint was frequently mentioned by the management team and was also shared by some members of the Nazarbayev University community. Even after going to in person study, the central focus remained the same. There were strict measures to enter the campus without observing which entry was prohibited. These requirements included vaccination, COVID testing, and adherence to updated measures and procedures.

> As I said earlier, the priority was to maintain health and safety, and therefore, even sitting in class, we knew for sure that everyone who was nearby was fully vaccinated, and we were assured that we were safe on campus and would not infect each other at the university (Interviewee 21, community member).

In order to mitigate the risk of illness spreading across the campus, the university implemented a comprehensive strategy that encompassed various forms of assistance and support for students, faculty, and staff. That help supported the health and safety of the university community during the pandemic. The provision of special premises to accommodate community members infected with COVID-19. For example, 19, 20, 21 blocks, separate buildings within the university's campus, were reserved for the exclusive use of those who had fallen ill with the virus. This separation helped contain potential transmission within the university community and ensured that infected individuals received the appropriate care, since most of the city's hospitals were overcrowded. Beyond the provision of meals, students undergoing a 14-day quarantine received daily allowances. Establishing own laboratory for testing to diagnose COVID-19 in Republican Diagnostic

Center (RDC) was another important measure, that helped to reduce both the cost of testing and dependence on city laboratories.

Many respondents from both groups noted that the university, prioritizing health and safety, adhered to WHO and Kazakhstan's Ministry of Healthcare guidelines while also implementing its own internal rules, resulting in enhanced campus safety measures. Based on our findings, a curfew, strict access controls to the campus, delivery service limitations, the closure of all entrances to the campus except one, rigorous vaccination prerequisites, and an extended period of online learning were implemented in comparison to other universities in Kazakhstan. Community members found the initial strict measures, such as lockdowns and restrictions on movement, psychologically challenging:

> I mean, seeing like walking outside was like one of the things that might be helpful in helping people's psychology, helping people, so we could keep it within the campus. I don't know what prevented those kinds of things. Everyone was locked in their apartments, and they were not allowed to go out. They would have to take some breathing, especially for kids, for dogs, for, I mean, those kinds of things, it was really difficult, and it was not too much flexible. (Interviewee 18, community member).

Respondents from the community members group expressed that some decisions were ineffective and illogical for Nazarbayev University community (Interviewee 18, community member). However, over time, the community adapted to the new environment and began to place trust in government and Nazarbayev University regulations, ultimately leading to the emergence of more flexible options.

> At the beginning, everyone was scared, nobody knew anything, nobody knew who to trust, nobody knew who to follow. […] So, I don't think like the decision-making level, they had too much choice because they were following what the world was doing. (Interviewee 18, community member).

4.1.2 Academic continuity

All the support measures implemented for students and other Nazarbayev University community members were fundamentally directed at preserving their health and well-being. However, these efforts also played an important role in addressing the second crucial priority, which was the continuation of academic activities and ensuring educational continuity. To

ensure an uninterrupted educational process, online training was introduced immediately after the start of quarantine:

> So really to continue to do teaching, research, and administration. Of course, the easy way was to close everything down. We did it at the beginning, but you cannot obviously maintain a university completely without doing teaching and research. (Interviewee 8, decision-maker).

In addition to the comprehensive support offered to students, which included laptops, allowances, and various other measures, Nazarbayev University, being a research-oriented institution, recognized the needs of certain categories of students who relied on laboratory access for their academic studies. In response to this a primary priority was given to granting access to laboratories for this specific group of students. To ensure the continuity of academic activities, support was extended to both foreign students and professors during periods of border closures.

> It's clear that tourism was forbidden, but there were some strategic objects, where foreign workers were involved, and they (organizations) needed them (workers)…There was a list of specialists that were allowed to enter Kazakhstan... For example, in our case for Nazarbayev University, it was students and foreign teachers, who were obliged to teach, so the working process wouldn't stop. (Interviewee 9, decision-maker).

In sum, in the unpredictable situation created by the COVID-19 pandemic, the university faced the ongoing challenge of making decisions while keeping two important priorities at the forefront: the health and safety of the community and the uninterrupted academic continuity. These two objectives served as guiding principles for all decision-making processes.

4.2. Close collaboration among stakeholders

One of the most important constituents of success during crisis situations of any organization consists in effective collaboration between all the stakeholders. Nazarbayev University developed internal as well as external collaboration during the pandemic.

5.2.1 Collaboration of Nazarbayev University with external bodies.

External collaboration consisted of cooperation of Nazarbayev University with the Ministry of Health and Ministry of Education, and some international institutions. From the very beginning, Nazarbayev University has primarily adhered with all state laws and regulations during the pandemic and all further internal regulations were superimposed on existing national and city requirements. Every decision-making process and meeting at Nazarbayev University started with a comprehensive review of global, national, and local pandemic-related statistics and analysis. This step allowed to understand the full scope of the situation, both on a global scale and within the country and city.

> However, very important that the university cannot operate outside the local context. I know we are autonomous, but we must really comply with the law. Of course, and in this case, during the COVID-19, we had to comply with the national regulation for COVID-19. And the internal operational demand, of course, they were taking into consideration, but we never went against the national regulation. Never. (Interviewee 8, decision-maker).

However, the university not only implemented pandemic-related regulations and protocols from the government side, but also shared its expertise, leveraging its status as a research institution. The goal of this collaboration was to more effectively overcome the challenges caused by the pandemic. For instance, the collaboration with the Ministry of Health and Ministry of Education was reciprocal. Decision makers from the university represented Nazarbayev University at the Ministry of Education and Ministry of Health, presenting the sets of decisions and approaches for potential adoption at the national level.

> So, it's not that we only adopted the national policies and we tried to be in alignment with them, but one of our leaderships also had a very strong voice in making decisions at the national level in the Ministry of Health (Interviewee 1, decision-maker).

As one of our interviewees (Interviewee 14, decision-maker) mentioned, one of the schools of Nazarbayev University initiated a project to track and predict the spread of COVID-19 in the country. It analyzed the data related to people's physical movements and their impact on the virus's transmission. This project led to the development of a valuable predictive algorithm and was further shared with the government.

Despite the collaboration with government, the university has engaged in knowledge exchange with other academic institutions during the pandemic as well, sharing insights and experiences on various academic and research matters.

> So, for example I always communicated with the University of Cambridge, with the University of Pennsylvania to ask, what they are doing with their students, how they are going to continue their academic activities, how they are managed with the doctoral students, because it was very important for our research, what conditions have been provided for the researchers. (Interviewee 1, decision-maker).

External collaboration with government bodies enhances the university's capacity to respond to crises by providing access to expertise and information, which help to align decisions with national policies and regulations. Knowledge exchange with international education institutions helps to gain a global perspective in some specific academic fields.

4.2.2. Internal collaboration of stakeholders within Nazarbayev University

Immediately after the beginning of the pandemic in Kazakhstan, the university created a working group, which had direct obligations within the COVID-19 agenda. "Task Force" was an internal collaboration among higher authorities of the university, it included "the leadership of the university, all the executives, the executive directors of all the administrative departments, all the key people" (Interviewee 6, decision-maker). This task force had great responsibility to meet the requirements of urgent situations within the COVID-19 pandemic. Each member of the Task Force held responsibility for a specific area of expertise or domain. "We were decision makers, but decision makers in our own area." (Interviewee 12, decision-maker). Every Friday, the Task Force members met via Zoom to discuss specific tasks and make decisions regarding COVID-19. According to insights from our interviews, the meeting structure was designed to comprehensively address all areas of the university, impacted by the pandemic. During those meetings, every task force member shared their perspectives, information, data, concerns, and more, covering global situations, as well as academic, administrative matters, and campus-based student issues. This holistic view allowed the Task Force, including the leadership of the university to gain a comprehensive understanding of the evolving situation each week. Decisions were formulated based on the outcomes and discussions during those meetings.

And definitely when you need to manage a crisis, you just need that multidisciplinary approach to work together. And this is what we did in on this meeting on Friday. On Friday, Friday mornings, we actually had all the different expertise, all people from different schools, from different department discussing the issues together and then made final recommendations. (Interviewee 8, Decision-maker).

As each team member had distinct responsibilities in specific areas, including working closely with students and faculty, this approach helped in ensuring the ongoing engagement of various stakeholders. If students or faculty faced issues, they had designated points of contact for each area, and their recommendations were channeled to the Task Force through the respective member. While community members were not involved in the decision-making process directly, it did provide stakeholders with communication channels during the pandemic. Further details regarding the methods of engagement will be explored in the forthcoming communication section.

I said that in the decision-making process, most of the people I know, most of the people at the administrative positions, were not too much involved. They were only at the position to declare about, or inform authorities about their own problems, or their own situations. Like this, I don't think this is like the real meaning of involvement in the decision-making process, but it's more about like announcing or communicating your own problems, and that's different." (Interviewee 18, Community member).

4.3 Centralization of the authorities in the decision-making

Centralized leadership is crucial during emergent situations, as they often involve high levels of uncertainty, rapid decision-making, and the need to inspire and guide others through challenging circumstances. Nazarbayev University was not an exception in terms of strong authority of leaders during the pandemic chaos. The employees of the university highlight the role of leaders in the decision-making process. It was noted that weekly Friday meetings were devoted to special cases or emergent situation on campus, therefore instant decision had to be made. Moreover, those decisions had to be «correct» from all sides, taking into consideration international and local requirements as well as the interest of all the stakeholders. Consequently, leaders had to take this responsibility and plunge into all details

of every case. Nazarbayev University authorities took that responsibility and evidently did well at the end. All the interviews among Nazarbayev University employees prove this:

> The leadership played a key role. But the leadership gave recommendations as the leadership sees it, and all the members of the Managing Council approved it. Or sometimes, looking at the case, sometimes there is some kind of non-standard question, then they asked …, the leadership was always present. (Interviewee 1, Decision-maker).

As one of our respondents mentioned, even in most democratic societies different forms of governance are applicable at different times (Interviewee 10, Decision-maker). Nazarbayev University, which predominantly follow democratic principles and fosters collaborative efforts, found itself navigating an unpredictable crisis. Acknowledging the potential consequences of decision-making errors in such circumstances, the university's leadership took full responsibility for the decisions made during this period. However, in challenging times, leaders must not only take ownership of decisions but also embody the principles and values they expect from their teams. Leaders who exhibit strong leadership skills can navigate emergent situations more effectively, inspire confidence among team members, and contribute to successful outcomes despite the challenges presented by the situation. "What I do really appreciate here is looking at the university leadership, that they were very calm, they were very friendly, there was no some chaotic or nervous decisions. All these decisions were very solid, well studied…" (Interviewee 1, Decision-maker).

Nonetheless, the university is ruled by the collegiate, however at the crisis situations the decisions were centralized: "That was centralized decision with consideration of many factors, related to the campus, university, national regulations, and the global situation overall." (Interviewee 7, Decision-maker). So we can say, that throughout the COVID-19 pandemic, Nazarbayev University adopted a centralized decision-making approach, yet concurrently embraced an openness to diverse viewpoints and considerations. This approach, characterized by a balance between centralized decision-making and receptiveness to various perspectives, served as an important element of the framework that guided the decision-making process at Nazarbayev University. However, it is important to mention, that the authority was not imposed by the position of the top management only but was connected to

respect in terms of experience and field of activity of the person. Therefore, the School of Medicine also played a great role during the pandemic.

4.4. Communication

Communication also played a crucial role during the COVID-19 pandemic at Nazarbayev University and outside its premises. As mentioned in our conceptual framework, clear communication fosters shared understanding facilitates information exchange and improves decision-making. Nazarbayev University totally understood the significance of effective communication, what was traced in the interviews as well: "Communication was crucial for overall success and for efficiency of all measures which we tried to implement. And I think the crucial point here is the regularity of this communication". (Interviewee 7, decision-maker).

During the COVID-19 pandemic, the university community relied predominantly on digital communication tools to maintain connectivity. Notably, email, Zoom, and WhatsApp emerged as the primary means of communication within the university. These communication tools can be categorized as one-way communication, as their primary function is to disseminate information without actively facilitating reciprocal dialogue. In this context, those tools served as informational channels, delivering content from a source to recipients without necessarily encouraging or enabling immediate feedback or interactive exchange. The executive department staff, students and faculty underscored the significance of email as a fundamental tool of communication at the university during the pandemic. Email provided a formal and structured medium for disseminating official information and documents, including emails from President office, which were crucial for COVID-19 related news and updates announcements.

> And that was a basic letter giving a summary of the meeting, giving an update. It was very good. It was an update on the evolution of the epidemic in Astana, Kazakhstan and in the world. And we put everything in in this letter about the regulation of the Minister of Health, the vaccination requirement, the testing and also any restriction that we had. And then any restriction that we had also, we had to implement on campus. So, everything was in this letter. Yeah, religiously every week we did it for two years (Interviewee 8, decision-maker).

In addition to official communication tools, community members utilized unofficial platforms, such as WhatsApp or Telegram channels. Those informal channels played a crucial role in swiftly disseminating information and delivering urgent updates within the community.

If Friday meetings, that were discussed above, were an important tool of communication and collaboration among leadership of the university, then Town Hall meetings, that were introduced by Nazarbayev University during the pandemic, served as a communication tool for a broader range of stakeholders, including students, faculty, and staff. Distinguished by their two-way communication nature, those Town Hall meetings on Zoom allowed active participation from all attendees. Participants had the opportunity to pose questions in real-time and receive immediate responses, fostering a dynamic and interactive exchange of important information regarding COVID-19 among diverse stakeholders within the university community.

> Town-hall meeting, is, for example, when all the 500 people, living on campus, if they want to hear some updates, ask some questions, they conducted a Town-hall meeting, which was a general meeting in Zoom, which they could just join and listen to some brief information, updates, what was happening, concerning COVID, what were the numbers, or they could ask a question and get answers. (Interviewee 4, decision-maker).

Overall, the communication tools and methods were deemed effective and useful by our respondents from both groups. However, some respondents found the weekly emails from the President's office to be overly lengthy, resulting in some individuals not thoroughly reading the provided information.

> To be honest, we noticed that many of these letters were not read by some of our community members, which were those actually complaining, you know. So, they came back, and everything was there, you know, everything was there. So, then we started to shorten because it was quite a long letter. (Interviewee 8, decision-maker).

5. Feedback from the community

To address our second research question, which focuses on the community members' perception of the decisions made at Nazarbayev University during the COVID-19 pandemic,

we examined the interview data gathered from the second group. Our analysis reveals a spectrum of perceptions among community members regarding the decisions made at Nazarbayev University during the COVID-19 pandemic. While some expressed positive sentiments, others held some negative opinions about the implemented decisions.

Positive perceptions from the community members were notably centered around the various university's support initiatives. This encompassed different forms of aid, including infrastructural enhancements, technical assistance, and medical support. Specific highlights included the allocation of dedicated blocks on campus for medical purposes, the establishment of COVID-testing laboratories, provision of meals, allowances, and the distribution of laptops. These tangible contributions were widely appreciated, forming a positive aspect of the community's overall perception of the university's response during the challenging times of the COVID-19 pandemic. Respondents also underscored smooth transition to online learning and work processes. The seamless and rapid adaptation to virtual platforms was a notable aspect of their positive feedback. "Administration was quite supportive, and the teaching process was moved online relatively smoothly" (Interviewee 17, community member).

However, not all community members felt actively engaged in the decision-making process during that period. A significant number of respondents expressed that they primarily received information about restrictions and rules they were required to adhere to, without a sense of direct involvement in the decision-making discussions. This sentiment highlights a perception of limited inclusion in the decision-making processes among certain members of the community. Numerous respondents emphasized that one of the predominant challenges during that period revolved around the strict rules and regulations on campus. Notably, some of those rules were perceived by community members as even more restrictive than the national guidelines. Some bureaucratic challenges, particularly related to entering the campus and obtaining and presenting COVID-testing certificates every 3 days, emerged as significant ones as well, contributing to the complexities faced by the community members during that period.

Nevertheless, despite certain negative perceptions surrounding specific decisions, it is noteworthy that the majority of community members acknowledged the necessity of those strict rules and regulations, even if they appeared at times as illogical or overly regulated.

There is a shared understanding among the community members that those measures, though challenging, played a crucial role in addressing challenging circumstances of that time and safeguarding the well-being of the community as a whole. "It was a little difficult for us, but I wouldn't say that it was just bureaucratic, it was safety" (Interviewee 19, community member).

6. Conclusion and recommendations

In conclusion, our research of the decision-making processes at Nazarbayev University during the COVID-19 pandemic addressed two important research questions. First, how were decisions at Nazarbayev University made during that time, and second, how were those decisions perceived by the university community?

Our study discovers that the decision-making at Nazarbayev University was based on two overarching priorities: safeguarding the health and safety of the university community and ensuring academic continuity. Additionally, decision-making process was centralized, but complemented by an openness to feedback, fostering a culture of collaboration both within the university and with external bodies. Diverse communication channels also played an important role in enabling a seamless and efficient exchange of information, ultimately contributing to the decision-making process.

While the prevailing sentiment among community members leaned towards a positive perception of the decisions made, constructive feedback highlighted areas for improvement. Specifically, community members expressed a desire for better communication with broader stakeholders, along with increased engagement in the decision-making processes.

Considering these insights, our recommendations for refining the decision-making process during times of crisis are based on them. First, we advocate better inclusive engagement strategy with a diverse array of stakeholders, encompassing students, faculty, and staff. Secondly, we underscore the importance of enhancing communication strategies, not only in terms of efficient information dissemination but also by establishing more interactive channels that permit community members to pose questions and receive timely, informative answers, thereby enhancing transparency and a deeper understanding of the underlying reasons behind the decisions. Additionally, our third recommendation emphasizes the need for improved communication in terms of conciseness and shorter methods for delivering

crucial information. This ensures that important updates are delivered in a format that is easily digestible and accessible, contributing to a more streamlined and effective communication process.

References

Abdallah, A., Alriyami R. (2022). Changes in the Education Landscape Caused by COVID-19: Opportunities and Challenges. https://eric.ed.gov/?id=EJ1355680.

Adedoyin, O., Soykan E. (2023) COVID-19 pandemic and online learning: the challenges and opportunities, Interactive Learning Environments, 31(2), 863-875. DOI: 10.1080/10494820.2020.1813180

Boin, A. (2008). Crisis Management. Volume II. https://wiac.info/docviewer.

Capano, G. (2020). Policy design and state capacity in the COVID-19 emergency in Italy: If you are not prepared for the (un)expected, you can be only what you already are. Policy and Society, 39(3), 326–344. https://doi.org/10.1080/14494035.2020.1783790

Catells, M. (1980). The economic crisis and American society. Princeton University Press. https://books.google.kz/books?hl=en&lr=&id=26n_AwAAQBAJ&oi=fnd&pg=PP1&dq=economic+crisis&ots=SUskHieiMp&sig=G0-1RtlrGbdUvciZd3moY7oouuI&redir_esc=y#v=onepage&q=economic%20crisis&f=false.

Cooper, H. H. A. (2007). Decision Making in a Crisis. Journal of Police Crisis Negotiations, 7(2), 5-28. https://doi.org/10.1300/J173v07n02_02.

Daniel, S. J. (2020). Education and the COVID-19 pandemic. Prospects, 49, 91–96. https://doi.org/10.1007/s11125-020-09464-3.

Donthu, N., Gustafsson, A. (2020). Effects of COVID-19 on business and research. Journal of Business Research, 117, 284-289. https://doi.org/10.1016/j.jbusres.2020.06.008.

Essa M., Subramanian K., Jayasuriya H., (2020). COVID-19 Impact on Undergraduate Education: Academicians' Perspective. Journal of Health and Allied Sciences Nazarbayev University 2020. https://www.thieme-connect.de/products/ejournals/pdf/10.1055/s-0040-1718609.pdf

Flack, C. B., Walker, L., Bickerstaff, A., Margetts, C. (2020). Socioeconomic disparities in Australian schooling during the COVID-19 pandemic. Melbourne, Australia: Pivot Professional Learning. https://docs.pivotpl.com/research/COVID-19/Pivot_Socioeconomic+disparities+in+Australian+schooling+during+COVID-19+July+2020.pdf.

Fotheringham, P., Harriott, T., Healy, G., Arenge, G., Wilson, E. (2021). Pressures and influences on school leaders navigating policy development during the COVID-19 pandemic. https://doi.org/10.1002/berj.3760

Gan, Y., Ma, J., Wu, J., Chen, Y., Zhu, H., & Hall, B. (2022). Immediate and delayed psychological effects of province-wide lockdown and personal quarantine during the COVID-19 outbreak in China. Psychological Medicine, 52(7), 1321-1332. https://www.cambridge.org/core/journals/psychological-medicine/article/immediate-and-

delayed-psychological-effects-of-provincewide-lockdown-and-personal-quarantine-during-the-covid19-outbreak-in-china/69A7E798EA2214ACB04BEB526A9B4740.

Hermann, C. F. (1963). Some Consequences of Crisis Which Limit the Viability of Organizations. Administrative Science Quarterly, 8(1), 61–82. https://doi.org/10.2307/2390887.

Hill, J., Powell, P. (2009). The national healthcare crisis: Is eHealth a key solution? https://doi.org/10.1016/j.bushor.2009.01.006.

Iftikhar, R., Majeed, M., Drouin, N. (2023). Crisis management process for project-based organizations. International Journal of Managing Projects in Business, 16(8), 100-125. https://doi.org/10.1108/IJMPB-10-2020-0306.

James W. Dean, Jr. and Mark P. Sharfman (1996). Does Decision Process Matter? A Study of Strategic Decision-Making Effectiveness. The Academy of Management Journal , Vol. 39, No. 2, pp. 368-396. Published by: Academy of Management. https://www.jstor.org/stable/256784?searchText=decision-making+process&searchUri=%2Faction%2FdoBasicSearch%3FQuery%3Ddecision-making%2Bprocess&ab_segments=0%2Fbasic_search_gsv2%2Fcontrol&refreqid=fastly-default%3A30028eff101d6a8fd52afafaeaebecb3

Kopp, M., Gröblinger, O., Adams, S. (2019). Five Common Assumptions That Prevent Digital Transformation at Higher Education Institutions. Presented at INTED 2019, Valencia, Spain. https://www.researchgate.net/publication/331682561_FIVE_COMMON_ASSUMPTIONS_THAT_PREVENT_DIGITAL_TRANSFORMATION_AT_HIGHER_EDUCATION_INSTITUTIONS.

Lemay, D. J., Bazelais, P., Doleck, T. (2021). Transition to online learning during the COVID-19 pandemic. Computers in Human Behavior Reports, 4, 100130. https://doi.org/10.1016/j.chbr.2021.100130.

Lockwood, N. (2005). Crisis Management in Today's Business Environment: HR's strategy role. https://www.shrm.org/hr-today/news/hr-magazine/documents/1205rquartpdf.pdf.

Maital, S. (2020). The Global Economic Impact of COVID-19: A Summary of Research. https://www.neaman.org.il/EN/Files/Global%20Economic%20Impact%20of%20COVID-19_20200322163553.399.pdf.

March, J. (1994). A Primer on Decision. How decisions happen. https://books.google.kz/books?hl=en&lr=&id=cFagB2qj2jwC&oi=fnd&pg=PT9&dq=decision+making&ots=jdMEoyydAF&sig=gaFKfAXo1gWaStJKQZwXqetQBgw&redir_esc=y#v=onepage&q=decision%20making&f=false.

Marinoni, G., van't Land, H., & Jensen, T. (2020). The Impact of COVID-19 on Higher Education Around the World: IAU Global Survey Report. https://www.uniss.it/sites/default/files/news/iau_covid19_and_he_survey_report_final_may_2020.pdf.

Nimni, E. (1991). Marxism and Nationalism. Theoretical origins of the political crisis. https://books.google.kz/books?hl=en&lr=&id=1TgV-Bay35YC&oi=fnd&pg=PR4&dq=political+crisis&ots=swivFngO6e&sig=9Y30mNZnrFtShT7-GuvnQPcLXQQ&redir_esc=y#v=onepage&q=political%20crisis&f=false.

Nazarbayev University (2020). Nazarbayev University actions to address the COVID-19. https://nu.edu.kz/news/latest-nazarbayev-university-updates-on-actions-to-address-the-COVID-19-situation.

Nazarbayev University (2023). Nazarbayev University Enters THE World University Rankings: Scores Top 30% of International Research Universities. https://nu.edu.kz/news/nu-enters-the-world-university-rankings-scores-top-30-of-international-research-universities.

Nazarbayev University (2023). Nazarbayev University: Health Center department, Department of security and Managing Council https://nu.edu.kz

Nazarbayev University (2023). Nazarbayev University official portal. https://my.nu.edu.kz/wps/myportal/home/COVID-19/

Pollard, C., Morran, M., Nestor-Kalinoski, A. (2020). The COVID-19 pandemic: a global health crisis. https://doi.org/10.1152/physiolgenomics.00089.2020

Pokhrel, S., Chhetri, R. (2021). A Literature Review on Impact of COVID-19 Pandemic on Teaching and Learning. Higher Education for the Future, 8(1), 133-141. https://doi.org/10.1177/2347631120983481.

Quarantelli, E. L., Dynes, R. R. (1977). Response to Social Crisis and Disaster. https://www.annualreviews.org/doi/abs/10.1146/annurev.so.03.080177.000323?journalCode=soc

Sibbald, S.L., Singer, P.A., Upshur, R. et al. (2009). Priority setting: what constitutes success? A conceptual framework for successful priority setting. BMC Health Serv Res, 9, 43. https://doi.org/10.1186/1472-6963-9-43.

Singh, J. (2020). COVID-19 and Its Impact on Society. Electronic Research Journal of Social Sciences and Humanities, Vol 2: Issue I, 2020. https://ssrn.com/abstract=3567837.

Tadesse, S., Muluye, W. (2020). The Impact of COVID-19 Pandemic on Education System in Developing Countries: A Review. Open Journal of Social Sciences, 8, 159-170. 10.4236/jss.2020.810011

Tansey O. (2007). Process Tracing and Elite Interviewing: A Case for Non-probability Sampling. PS: Political Science and Politics, Volume 40, No.4, October 2007. http://observatory-elites.org/wp-content/uploads/2012/06/tansey.pdf

Tarkar, P. (2020) Impact of COVID-19 Pandemic on Education System. International Journal of Advanced Science and Technology Vol. 29, No. 9s, (2020), pp. 3812-3814. https://www.researchgate.net/profile/Preeti-Tarkar/publication/352647439_Impact_Of_COVID-19_Pandemic_On_Education_System/links/60d1e909299bf19b8d99d279/Impact-Of-COVID-19-Pandemic-On-Education-System.pdf.

Toquero, C. M. (2020). Challenges and Opportunities for Higher Education amid the COVID-19 Pandemic: The Philippine Context. Pedagogical Research, 5(4), em0063. https://doi.org/10.29333/pr/7947

UNESCO, UNICEF, The World bank, OECD (2021). WHAT'S NEXT? Lessons on Education Recovery:Findings from a Survey of Ministries of Education amid the COVID-19 Pandemic. https://unesdoc.unesco.org/ark:/48223/pf0000379117

UNESCO, UNICEF, World Bank report (2022). Where are we on education recovery? https://unesdoc.unesco.org/ark:/48223/pf0000381091

UNICEF (2021). Press release. COVID-19 'biggest global crisis for children in our 75-year history'. https://www.unicef.org/press-releases/COVID-19-biggest-global-crisis-children-our-75-year-history-unicef.

United Nations (2021). Department of Economic and Social Affairs. The COVID-19 crisis: what explains cross-country differences in the pandemic's short-term economic impact?

https://www.un.org/en/desa/COVID-19-crisis-what-explains-cross-country-differences-pandemic's-short-term-economic-impact#:~:text=The%20COVID%2D19%20pandemic%20has,economic%20crisis%20in%20recent%20history.

WHO (2020). WHO Director-General's opening remarks at the media briefing on COVID-19 - 25 March 2020. https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-COVID-19---25-march-2020.

WHO (2020). Considerations for school-related public health measures in the context of COVID-19. Annex to Considerations in adjusting public health and social measures in the context of COVID-19. 14 September 2020. https://www.who.int/publications/i/item/considerations-for-school-related-public-health-measures-in-the-context-of-COVID-19

WHO (2023). Current context: the COVID-19 pandemic and continuing challenges to global health. https://www.who.int/about/funding/invest-in-who/investment-case-2.0/challenges

Appendix 1

Sample of the interview questions for decision makers

1.   To what extent did Nazarbayev University prioritize adhering to the national COVID-19 regulations versus its internal operational demands during the pandemic?

2.   Did Nazarbayev University actively engage in continuous research or of its campus-specific needs and development of COVID-19 regulations? How?

3.   Can you describe the process of establishing the centralized decision-making body or task force for coordinating the COVID-19 response at Nazarbayev University?

4.   Whose authority held conclusive weight in terms of decision-making concerning campus regulations? To what extent was the President of NU involved into the process of regulating the decision-making and implementation of COVID regulations?

5.   In case of violations of COVID restrictions among NU community what measures were taken by the authorities of the university?

6.   In case of diverse viewpoints among stakeholder groups how had NU balanced the interests of each group when making decisions related to the pandemic?

7.   What specific communication strategies and instruments were put in place to ensure effective information exchange among different stakeholders during the pandemic? Did NU manage to communicate effectively with other stakeholders?

8.   What were the instruments of monitoring and evaluating the effectiveness of decisions and interventions implemented during the pandemic at Nazarbayev University?

Appendix 2

Sample of the interview questions for community members

1.   How did Nazarbayev University involve students/teachers in the decision-making process regarding COVID-19 response measures?

2.   What were the channels or instruments of communication on COVID regulations which administrative bodies of NU used during the pandemic?

3.   Did NU monitor and evaluate the effectiveness of decision on COVID regulations among NU community implemented during the pandemic?

4.   Did you feel involved in the process of decision-making on COVID regulations during the pandemic? Why yes/no?

5.   Would you evaluate NU decision on COVID restrictions effective? Why?

6.   Did you meet any bureaucratic challenges from the NU administrative bodies during COVID what had made transition to online education difficult for you?

7.   What was the most successful instrument of communication during COVID at Nazarbayev University?

8.   What was the hardest restriction from the NU side that you had to cope with during the pandemic? Why?