Proceedings of the 33rd European Safety and Reliability Conference (ESREL 2023) Edited by Mário P. Brito, Terje Aven, Piero Baraldi, Marko Čepin and Enrico Zio ©2023 ESREL2023 Organizers. Published by Research Publishing, Singapore. doi: 10.3850/978-981-18-8071-1_P445-cd



The appropriation by crisis managers of the "Business Continuity Plan" during the pandemic crisis.

Jihane BOU-SLIHIM

Laboratoire des Sciences des Risques (LSR), IMT Mines Ales, Ales, France, jihane.bou-slihim@mines-ales.fr

Aurélia Bony-Dandrieux

Laboratoire des Sciences des Risques (LSR), IMT Mines Alès, Alès, France, <u>aurelia.bony-dandrieux@mines-</u> ales.fr

Pierre-Michel Riccio

Laboratoire des Sciences des Risques (LSR), IMT Mines Ales, Ales, France pierre-michel.riccio@mines-ales.fr

A crisis is a disruption in a balance leading to the risk of losing control. The challenges that await managers are relatively identical regardless of the organization. In particular, they have to deal with surprise in a complex environment (an event with little or poorly known effects, exceeding benchmarks, a break in capability) and make strategic decisions even though the information available is fragmentary, sometimes erroneous or contradictory, often evolving, and various pressures (major consequences induced by the decisions to be made, time pressure, media pressure, and hierarchical pressure) can lead to multiple cognitive biases. The SARS-Cov-2 crisis illustrates the evolution of threats and the need to prepare to serious disruptions. This crisis emphasized the importance of ensuring the continuity of a company's activities in order to guarantee its sustainability by adopting continuity strategies. The purpose of this study is to detect the role of the Business Continuity Plan (BCP) in the decisionmaking process of crisis managers. We seek to understand how they handled with covid-19 crisis, what the skills, strategies and tools were used to detect and respond to this extraordinary situation. All these reflections will allow us to project the axes of improvement that can be envisaged, a renewed strategic approach that must be imposed to crisis managers. To achieve this goal, we used a grounded theory approach as one of our qualitative research designs and analysed data collected from crisis managers (17) through directional centered interviews. We combined the results of our analysis to what the literature has to provide (e.g. Norms) in a bottom/up approach to enrich the manager's toolbox by proposing a model of anticipation and business continuity that will help him to have a more holistic understanding of crisis issues that are increasingly complex.

Keywords: Business Continuity Plan (BCP), Business continuity management, Crisis management, risk management, interviews, crisis managers, covid-19 pandemic.

1. Introduction

Crises do not happen only to others and even when it happens to others there is a shock wave that can impact all the organizations they interact with. A crisis is a disruption in a balance leading to the risk of losing control. The challenges that await managers are relatively identical regardless of the organization. In particular, they have to deal with surprise in a complex environment (an event with little or poorly known effects, exceeding benchmarks, a break in capability) and make strategic decisions even though the information available is fragmented, sometimes erroneous or contradictory, often evolving and various pressures (major consequences induced by the decisions to be made, time pressure, media pressure, hierarchical pressure) can lead to multiple cognitive biases.

The SARS-Cov-2 crisis is the illustration of changing threats and diminishing certainty. Until now, we were in a fairly stable environment with fairly well identified disruptive events and response plans. Today we are faced with threats with new characteristics and interdependencies like domino effects that create very complex scenarios projecting us into situations of rupture with real risks of loss of anchorage.

In this context and in front of these challenges, organizations in both the private and public sectors need to adopt a preventive approach to ensure the continuity of their activities in order to better cope with destabilizing events.

This prior approach must enable them to preserve their financial situation, their image and also the personal responsibility of their leaders. This approach seems simple; it is about setting up a preventive business continuity plan. The purpose of this plan is to ensure the recovery and continuity of the organization's activities following a disaster or a serious event that has disrupted its operations.(Secretariat Général de la Défense et de la sécurité Nationale 2013)

The Covid-19 crisis highlighted the domino effects and, in general, recent crises (e.g. cyber-attacks or climate change) have a systemic dimension. We are now witnessing a great complexity of crises, which may be revealing the limits of business continuity models, and which requires us to review these reference models, or at least to enrich them. Those models are normally intended to help crisis managers in knowing and developing effective strategies to deal with the continuity of their activities in the face of all the "modern crises" that our era faces.

In this paper we propose to detail the issues specific to the theme of business continuity in a first part. We then present the framework of the current study, the methodology used and some preliminary results. Finally, we open the discussion on the future stages of the research.

2. Epidemics and business continuity, a turning point not to be missed...

In 1918, the world saw the appearance of the "Spanish flu", a plague that killed between 25 and 40 million people in barely a year. In order to face what was called "the unexpected killer "(Benoit 2020), a vast panel of prevention measures was deployed, such as the generalization of hygiene measures, the closing of public places (theatres, museums), the disinfection of transports or the physical distancing in hospitals. In the early 2000s, the world experienced its first coronavirus epidemic, SARS (Severe Acute Respiratory

Syndrome), which was declared by the Pasteur Institute to be the "first serious and communicable disease to emerge in the 21st century"(Institut Pasteur 2020). The SARS epidemic was contained by isolation and guarantine measures and stopped circulating with the arrival of spring. Six years later, in 2009, the epidemic of H1N1, also called swine flu, occurred. The rapid spread of this virus has raised a serious concern about the consequences on organizations (companies, institutions, ...) and their employees, especially with regard to the rate of absenteeism that can lead to a reduced productivity and / or disruption of services (International Labour Organization 2009). Following this new pandemic, restrictions and measures have been adopted to cope with it, which forced companies to rethink the work of their employees in a degraded mode and to ensure that the essential functions of the companies were ensured despite the interruptions. The concept of business continuity and business continuity planning (BCP) is of great importance in dealing with this type of crisis. In this perspective, the French State has developed in 2009 a national plan for the prevention and control of the flu pandemic, which recommends in particular the development of business continuity plans. This plan was also thoroughly revised in 2011 to incorporate feedback and lessons learned from the management of the 2009 pandemic episode (Ministère du Travail, des relations sociales, de la famille, de la solidarité et de la ville 2011). The Covid-19 crisis is a critical period which make it possible to question the resilience of companies with regard to business continuity and more precisely to better understand how companies used or reinvested their BCP when they had one, or even did differently when they did not have one. The COVID crisis is characterized by slow kinetics but above all by evolution with numerous and brutal accelerations: containment, decontainment, evolution of sanitary constraints coupled with health issues and significant psychological impacts that spread to the general population and, by the same token, to companies

with exogenous and endogenous constraints (Weber 2020a). Thus, in an article in the French newspaper "Le Monde", researchers Cuvelliez and Quisquater question the adequacy of BCPs to deal with a universal and prolonged shutdown of companies (Escande 2020). Are BCPs adapted to respond to a global crisis that lasts several months? The information that comes up most often, whether in the news or in the feedback from the use of BCPs during the pandemic, is that BCPs are not adapted to deal with a crisis that lasts over time and that the logic deployed to create, which shows that the effectiveness of any plan deployment lies in its preparation and implementation (Garcia Contreras, Ceberio, and Kreinovich 2017).

3. Between business continuity management and crisis management

(Hamon, 2022) defines a crisis as a turning point when the organizations in charge of resolving it must make crucial decisions under degraded conditions, under uncertainty. particularly "Managing" а crisis means that those organizations need to be prepared to undergo a crisis by preparing and developing plans that will help to cope with the crisis by providing decision support. Business continuity, in the other hand is defined by (AFNOR, 2019) as the ability of an organization to continue to deliver products and services within acceptable timeframes at predefined capacities during disruptions. A business continuity plan is therefore a principal result to business continuity management (Cerullo & Cerullo, 2004). A crisis is therefore a period of profound disruption, uncertainty and threat to operations at a fundamental level. This means that business continuity strategies are nested by default in the crisis management. An effective BCM plan helps an organization to better prepare and respond to crises. Effective crisis management, on the other hand, helps an organization to minimize the impact of a crisis on its operations and continue to function during and after a crisis. Combining BCM and crisis

management forms an integrated approach to managing risk and building resilience in an organization. By planning for both continuity and crisis management, organizations can respond effectively to unexpected events and disruptions and ensure they are prepared to continue functioning despite adversity. One cannot exist Business without the other. Continuity Management (BCM) is a critical component of an organization's overall risk management strategy. It helps to ensure that essential functions can continue during and after a crisis, whether it be natural disasters. cvber-attacks or other disruptions. Crisis management, on the other hand, is defined as the process by which organizations respond to a crisis to minimize its impact and reduce potential damage to the business. BCM and Crisis Management have a strong relationship, as both are essential for effective risk management. While BCM focuses on maintaining essential business functions and ensuring their continuity during a crisis, Crisis Management is more concerned with the response to the sudden onset of an event that requires immediate actions. BCM and Crisis Management are complementary to each other as they require coordination, planning, and execution of strategies that can minimize the potential impact of a crisis on an organization. In addition, BCM and Crisis Management also share a common goal of reducing the negative impact of disruptions on an organization's reputation, revenue streams, and stake.

4. Methodology

The objective of this article is to look at the experience of companies faced with a global crisis and to understand whether organizations that have a business continuity plan have implemented it, and whether it has proved to be an indispensable tool for dealing with the Covid-19 crisis. We also seek to know how organizations that do not have a continuity plan reacted to this crisis situation: what resources (organization, strategies, tools) were deployed to face the difficulties encountered

in ensuring the continuity of their activity and with what results they succeeded.

The study is being carried out as part of a PhD thesis in Information and Communication Sciences. The project is attached to the laboratory of Risk Sciences of the IMT Mines Alès. The main issue of the thesis is to question the actual use made of business continuity plans and the practices/strategies established by organizations in order to ensure the continuity of their activity and to think about its evolution, especially with regard to enriching the toolbox of crisis managers. To build this reflection, the methodology used borrows from both grounded theory and participatory research. In our work, method implementation is translated through a qualitative approach. The aim is to capture the meanings that individuals associate with the studied situations. (Paillé and Mucchelli 2012). We conducted 17 qualitative interviews with actors involved in the issue of business continuity (crisis managers, crisis management experts and also of actors that are in charge of the continuity of the activities without having the crisis manager hat). To do this, we first constructed a grid of questions addressing themes that would allow us to diagnose the ability of organizations to cope, whether or not they have a BCP, and to move forward with our reflections on the resilience of organizations. The main items selected aim to highlight the following points:

- How companies perceived and dealt with the covid-19 crisis
- The organization put in place by the companies to deal with a crisis, more specifically the COVID crisis
- The perceived interest of companies in having a BCP,
- The activation of BCPs in a crisis situation,
- The appropriation of BCP's during the covid-19 crisis.

These interviews allow us to have more in-depth elements concerning the feedback of the

organizations interviewed in the face of the pandemic, with a focus on business continuity. We also want to understand how, if they had one, these organizations used their BCP and how it was useful during the crisis. Conversely, for those who do not have one, we want to understand how they organized themselves in the face of the crisis, what approaches and methods they used to ensure the continuity of their activities. It is also important to question the effectiveness of the measures put in place by these organizations, whether or not they have a BCP. Alongside, we carried out about 20 hours of participant observation within a working group, in which there were several competent authorities in the field of business continuity, as well as 6 hours of observation of business continuity exercises in two different organizations, the objective of which was to observe how the actors use/appropriate the BCP during simulation exercises.

We had a hard time getting the agreement of the organizations to conduct our interviews, many organizations refused us for fear of revealing their vulnerabilities. The conduct of our interviews began in 2020, we were in the beginning of the crisis and we were facing the unknown, hence the concern of the organizations that saw our questions as a threat and did not want to comment on how they managed the crisis related to the covid-19. Among the actors we interviewed, some of them refused the recording and did not want to talk about the way they managed the crisis (even though we undergo a crisis, we do not manage it). Others preferred to stop the recording or to cut off at specific moments, because for them, talking about the continuity of their activity and how they managed a large-scale crisis such as covid-19 remains a confidential element, if the revelation could be detrimental to the stability and the reputation of the organization.

For the interviews that we were able to record, each was transcribed, and analyzed through our analytical strategy which followed the methodological logic employed throughout the work. The approach chosen led to touch on two aspects of the study and perform to comprehension work relevant to our form of research. Uunderstanding actors needs and constraints to support operational recommendations, enriching models and adopting a more structured analytical view of business continuity planning. The first stage of analysis (figure 1) involved hermeneutic work aimed at elucidating the underlying themes and norms of discourse. This allowed us to better understand the needs crisis manager actors. The second analysis refers to systematic approaches aimed at identifying phenomena such as paradoxes (between practice and theory). This second approach will be a complementary to the first and allowed us to develop a more structured view for building models. The results of the latter will not be presented in this paper because it is still in progress.

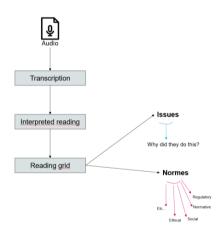


Figure 1:Data processing methodology

5. Results and Discussion

At this stage of the research, we have been able to identify in our sample three types of organizations:

- Organizations that have a BCP because they are governed by a law (e.g. the

Solvency II law for insurance companies and Bâle II for banks).

- Organizations, which are part of a process of excellence and who are willing to adopt all the tools to gain in resilience and maintain their reputation. For most of them there are public service organizations or suppliers of essential raw materials (in this case the majority of the time it is the customer who requires that they are equipped with BCP).
- Organizations that were encouraged by the health crisis linked to covid-19 to adopt a business continuity approach and thus put in place a BCP.

1/ Memory of past sanitary crises. (In)-Adequacy of the existing plans to poorly known events or forgotten situations

The experience of the health crisis by these three types of organizations differed on several points but all agreed that the health crisis was an extraordinary crisis and that the business continuity plans, for those who had it at the time, stated that they were not modeled for a crisis that lasted over time.

"The BCP covers a period of emergency on a period of 10 days but. it is not made to hold two months!" crisis manager.

Others stated that the BCP they've got in their structure was useless, by emphasizing on no use: "the BCP was of **NO USE** to us!!. The BCP it was mostly made by current crisis manager's predecessors that created it following the first episode of SARS-CoV-1 in 2009 but it has not been revised since its inception so it was simply obsolete to respond to the covid-19 crisis.

"My predecessor had done something... but since then, we have not used it, nor revised it. It is only in 2020 that we decided to update it and to go towards a global BCP" Crisis manager of a public service organization By a global BCP, they mean one that is not only available for the pandemic but for any other crisis that may impact the organization.

The H1N1 flu revealed that we were not immune to a health crisis. Awareness was raised at the time and companies took preventive measures to deal with it. However, it has been observed that once the emergency was over, organizations did not continue the efforts undertaken following the awareness of a possible major epidemic, and in some cases the measures taken were even forgotten.

"In the time of H1N1 I took part of the reflection. We had only made specific sheets on critical functions and in particular payroll, because we had to continue to pay people, we had identified some critical activities, that's all... H1N1 was limited to that because it was not at all comparable to what we are experiencing nowadays, so we stopped at the cards.... When the pandemic started in March, we did not have a BCP." Quality manager in charge of business continuity

"... we did an emergency PCA in 2009-2010. So we had a PCA which data is also on the pandemic valet. It was a very synthetic PCA..." Local institutional crisis manager

"...This BCP was annexed to the Communal safeguard plan (CSP) in 2009, it was a component of our CSP. In 2019 we revised our CSP and at the time of the revision, we could not get down to the revision of the BCP because it was too heavy because there were many things and it was very very very complicated so what we had done is that we revised our CSP first then we decided to revise the BCM within the next whole year but we were surprised by the covid "Local institutional crisis manager

2/ What strategies were or have to be implemented?

After this statements, the question that arose was if the BCP they've got were obsolete how did they manage to get through this pandemic?

This first analysis allowed us to identify characteristic elements like the importance of monitoring, preparation, knowing its structure (functioning and vulnerabilities), making information easily accessible and have a good conductor who in the literature is called a business continuity plan manager (Weber 2020)

 Monitoring: a major asset for anticipating risks and adopting more efficient business continuity strategies

Monitoring was a key element to face the pandemic, it allows better knowledge of the risk environment and the ability to take appropriate anticipatory measures when the need arises. The crisis managers observed the evolution of the situation the other countries.

"I identified that it was going to happen anyway, so we activated BCP based on the Italian containment model, you remember Italy, in fact, they have contained... I had made different scenarios and for me it was the most probable one, ... so we said to ourselves and the national confinement for me was the most pessimistic scenario and which was the most likely to happen. pessimistic scenario and that was the least likely what happened."

Based on their monitoring decision of creating extension of BCP and setting up anticipation measures were initialized

"...but since we had a crisis that was potentially going to last, we were almost certain of it and we created extensions to the BCP, i.e. when we triggered the BCP as it existed in parallel, we created an extension of the BCP to cover more activities that were not intended to be in the BCP but we deployed for these people to last a little while and we made a second extension afterwards to cover all the activities that could be done at the remote organization"

B. BCP as a preparation tool,

Organizations that had a BCP in place and had begun to review or revise it often enough (3 out of 17) realized that when the health crisis occurred, they could adapt and respond effectively even though the BCP they had was not modeled for such situation. The BCP was seen as a crisis preparedness tool. It allowed them to get to know their organizations, identify critical processes and make all stakeholders aware of the importance of business continuity. The reactivity of the actors was that by doing so, it allowed them to have a step back on their practices and to prepare them to adapt to any crisis.

"when we wrote it, it was more of a working method...The BCP, for us, was more a tool that allowed us to prepare ourselves, to think about the continuity strategy" Local institutional crisis manager

Situations can degenerate into a crisis and damage their reputation and/or turnover. Organizations needs to be aware that they have to prepare all their employees in advance because when the crisis breaks out, it is not possible to discover (and know how to use) a document of several dozen pages.

BCP is seen as a thinking tool that allies all collaborators to think about potential solutions during the crisis. A BCP is co-constructed with all the process pilots and the business continuity manager who orchestrates and guides them in their reflections. Revisions allows them to appropriate the information contained in the BCP, which has helped them to have the bases to face the pandemic.

"In fact the document, we left it aside but in fact the way of thinking it was there." Crisis manager of a public service organization C. Business continuity support tools

Five of the interviews we conducted, the managers spoke to us about a tool that they use and call reflex cards. These are sheets that fit on one page and describe the procedure to be followed to respond to an impact. Each sheet answers who what or when. The reflexions cards have they have replaced BPC in the practical aspect

"It's a reflex card...It's pretty quick...I go to my reflex cards: How does it work? What to do? How to do it? Where to go? Who to contact. These are my tools"

D. The indisposability of a conductor to ensure continuity of activity

Crisis managers play an important role in an organization by ensuring that effective plans that are meant to help deciders to respond quickly and appropriately to crises.

Crisis managers take proactive approach by conducting a business impact analysis to understand the potential impact of various risks and disruptions on organizational operations. Based on the analysis, the crisis manager develop actions for prevention, response and recovery.

"I always follow what's going on in the world, I document myself, I join working groups. At the same time, I inform and train my colleagues. I solicit them to become aware of the risks that can impact them and prepare for them... Yes, as you say, I am a conductor... " Crisis manager of a public service organization

Additionally, Ensure that the BC strategies are well communicated and understood by all relevant stakeholders. This requires ongoing education and training to keep abreast of new threats, trends, and strategies.

As well, crisis managers need to work closely with organizations that works in the field of risk management. Not only does this improve planning effectiveness, it also helps foster a culture of resilience.

"it is necessary at this time that's why you have to get in touch with professional associations to exchange with people on the subjects to challenge each other ... so to go and see your fathers, to discuss with them how they do things, to be nourished by the concerns of other economic sectors that will help you ..the day of the crisis we were regularly exchanging with each other to who has important information, who has thoughts on what to do, and yes, obviously we can't do anything about these issues on our own. alone we can do nothing on these subjects alone, so alone without expertise we can do nothing"

6. Conclusion and Perspectives

The COVID-19 pandemic have caused unprecedented disruption to businesses around the world. Our investigation shows that the interviewed organizations with a BCP stated that the plan was of no use, it was an obsolete plan that had not been revised since 2011, mainly because they felt that it was not an urgent matter and that what they had prepared for the potential health crisis, which never happened back in 2009, was sufficient to deal with a potential other health crisis. For most of them, the BCP they had was not modeled to face this kind of crisis and they were obliged to outcome it by proceeding otherwise. For enterprises that had already a BCP and for the one which did not, the pandemic was the turning point for them to adopt a rethought approach of business continuity. The pandemic has highlighted the importance of having a robust BC strategy.

In order to avoid finding ourselves in a situation identical to what we experienced in 2020, it is crucial that we develop a comprehensive future prevention approach that takes into account potential risks and provides a clear road map for mitigating them. We include contingency measures and effective continuity strategies that can be implemented during uncertain times (This is the second part of our research work that we tend to present in further communication)

In summary, the adoption of BCP by crisis managers during the pandemic crisis highlights the importance of having the BCP on check. To assure a rigorous approach by integrating business continuity into the organization's operations. Business continuity requires continually review and improve to address new threats and challenges. The organization must have a conductor who will be responsible for the BCP. In most cases, this hat can be given to the crisis manager or the organization's quality manager.

Acknowledgement

The authors would like to thank the companies, institutions and experts in crisis management who agreed to share their experience.

References

- Benoit, Marine. 2020. "Comment Le Monde a Fini Par Vaincre La Grippe Espagnole." Sciences et Avenir. 2020.
- https://www.sciencesetavenir.fr/sante/en-1919comment-le-monde-s-est-il-sorti-de-lapandemie-de-grippe-espagnole 143396.
- Escande, Philippe. 2020. "Entreprises et Coronavirus : « Comment Redémarrer Son Activité ? »." Le Monde. 2020. https://www.lemonde.fr/idees/article/2020/04/2

1/entreprises-et-coronavirus-commentredemarrer-sonactivite 6037327 3232.html?utm medium=So

- cial&utm_source=Facebook#Echobox=158747 9054 (accessed Oct. 06, 2021).
- Garcia Contreras, Angel F., Martine Ceberio, and Vladik Kreinovich. 2017. "Plans Are Worthless but Planning Is Everything: A Theoretical Explanation of Eisenhower's Observation." *Studies in Systems, Decision and Control* 276: 93–98. https://doi.org/10.1007/978-3-030-40814-5 11.
- Institut Pasteur. 2020. "SRAS : Informations et Traitements - Institut Pasteur." 2020. https://www.pasteur.fr/fr/centre-medical/fichesmaladies/sras.

- International Labour Organization. 2009. "Business Continuity Planning: How the ILO Prepares Enterprises for a Major Influenza A Pandemic." http://www.ilo.org/global/about-theilo/mission-andobjectives/features/WCMS_116341/lang-fr/index.htm.
- Ministère du travail, des relations sociales, de la famille, de la solidarité ey de la ville. 2009. "« Plan de Continuité d ' Activité » Dans Les Entreprises En Situation de Pandémie Grippale S Ommaire."
- Paillé, Pierre, and Alex Mucchelli. 2012. "Analyse Qualitative En Sciences Humaines et Sociales." https://doi.org/10.3917/arco.paill.2012.01.
- Secrétariat Général de la Défense et de la sécurité Nationale. 2013. "GUIDE POUR REALISER UN PLAN DE CONTINUITÉ D ' ACTIVITÉ."
- Weber, Cécile. 2020a. *Plan de Continuité Des Activités et Gestion de Crise: Résilience, Le Défi Des Nouvelles Menaces.* AFNOR.
- ——. 2020b. Plan de Continuité Des Activités et Gestion de Crise. AFNOR.