

COVID-19 CRISIS MANAGEMENT SYSTEM'S RESPONSE IN SOUTHEAST EUROPEAN ECONOMIES: A CAS FRAMEWORK

Katerina Fotova Čiković¹ 

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Abstract: *The global COVID-19 pandemic has transformed the world in 2020 and it has been recognized as the biggest stress test in the history of the European Union. The pandemic is inflicting high and rising human costs worldwide, and the necessary protection measures are severely impacting economic activity. As a result of the pandemic, the global economy had been projected to contract sharply by –3 percent in 2020, which is much worse than during the 2008–09 Global financial crisis. In these difficult and challenging times, countries and societies need to adapt to the new situation while minimizing the negative social and economic implications.*

This paper discusses how different governments in the South East Europe region (Albania, Bosnia and Herzegovina, Croatia, Kosovo, Montenegro, North Macedonia and Serbia) have managed and dealt with the COVID-19 pandemic. A review of the current literature on COVID-19 is conducted. This paper should enable a better understanding of how different governments have faced the pandemic and how and to which extent they facilitated a proactive and timely approach towards crisis management.

The objective of this study is to theorize a CAS (Complex Adaptive System) framework to evaluate the prevention, preparedness, response and crisis management and strategies used during the pandemic and assess the steps taken so far by the selected Southeast European transitional countries for tackling the COVID-19 crisis up to September 2020.

Keywords: *COVID-19 pandemic, SEE countries, CAS (Complex Adaptive System) framework, Crisis management.*

1. INTRODUCTION

The Covid-19 pandemic has strongly affected the lives and economies of countries all over the world, generating numerous challenges for private, public and business entities. Massive quarantines have been implemented globally that stopped most of the interactions between people, which is popularly referred to as social distancing (Pejić Bach, 2021). The virus initially spread rapidly across the world, affecting the mortality rates to go up, and the world has witnessed countries desperately struggling to test their citizens for the virus once it became known that many infectious carriers of it show no noticeable symptoms (Bird et al., 2020).

The income per capita in the vast majority of emerging markets and developing economies had been expected to shrink in 2020. The global recession could be deeper if financial stress triggers increasing debt defaults. The pandemic calls attention to the urgent need for policy action to cushion its consequences, protect vulnerable populations, and improve countries' capacity to cope with similar future events (WB, 2020).

Global flows of foreign direct investment (FDI) will be under severe pressure as a result of the COVID-19 pandemic. These vital resources are expected to fall sharply from 2019 levels, dropping well below the level reached during the global financial crisis and undoing the al-

¹ University North, Trg dr. Žarka Dolinara 1, 48000 Koprivnica, Croatia

ready lacklustre growth in international investment over the past decade. Flows to developing countries will be hit especially hard, as export-oriented and commodity-linked investments are among the most seriously affected (World Investment Report, 2020).

The consequences of any new virus are always unexpected and become more and more multisectoral as time compounds them, at all levels, from an individual to the macro level. At an individual level, a person's income, access to food and health care are all impacted. At the macro level, financial structures (of both public and private institutions) and political stability (or instability and tensions) are impacted (Fakhruddin et al., 2020).

Even though the COVID-19 pandemic has had a lower degree of destructiveness than the pandemics of the twentieth century, the reaction of the globalized society to the new pandemic – though quite similar in content to medieval quarantines formed by the threat of plague or black death – by the extent of institutional closure that gripped almost the entire developed world, has been a historical precedent. Aside from the epidemiological consequences, the general social and economic consequences of the pandemic are immeasurable. In a time with rapid social changes, it is possible to guess what impact not only the pandemic but also the reaction to the pandemic will have in many areas: primarily economies, where a new financial crisis is predicted for the coming autumn (Čokolić et al., 2020).

The COVID-19 pandemic has thus far shown a strike on three fronts through shocks on the demand, supply and expectations side. Furthermore, its effects will be asymmetric concerning the structure of the economy, industry and enterprises, but also with respect to the political economy – the relationship between the state and the market and the implemented model of a mixed market economy (Mačkić, 2020).

The economic crisis of 2008 has shown a lack of solidarity and a coordinated common policy within the EU, and this has been once more confirmed by the immigrant crisis seven years later. The corona crisis is rocking the European project again and shows that in times of crisis “every bird flies with their own kind, eagles with eagles, crows with crows”. The actors in resolving the crisis are not supranational EU organizations, but national countries (Dijanović, 2020).

Its effect on the Southeast European (SEE) countries has been non-negligible. As the number of coronavirus cases continued to grow rapidly in SEE, governments have been gradually announcing states of emergency, lockdowns and partial shutdowns to contain the spread of the virus. Coronavirus measures resulted in suspended flights, partial border closures, domestic travel restrictions and school shutdowns across the region. Government authorities banned large gatherings and imposed travel restrictions. Serbia and North Macedonia have cancelled and rescheduled their respective general elections scheduled for April 2020 (OECD, 2020c).

Systematic analysis of how countries have dealt with this pandemic, individually and collectively, is of vital significance (Rodhes, 2020). Complexity theory explores the individual, organizational and systemic behaviours of a social phenomenon. Using complexity theory, complex and emerging health issues such as pandemics or epidemics can be clarified (Biswas et al., 2020). Four major dimensions were extracted from the crisis and complexity theories to encompass preparedness, response and crisis management, and strategy of the governments of the selected SEE transitional countries for COVID-19, as well as the social and economical implications and, based on these four dimensions and adapted from the study of Biswas et al. (2020), the CAS (complex adaptive system) framework for this study, has been assembled and formulated.

2. LITERATURE REVIEW

Research on the implications of the COVID-19 pandemic is still very poor since the implications and consequences as well as the recovery from it are yet to come. However, there are some quite interesting aspects of the pandemic that have been researched and analysed. Namely, *Srblić et al. (2020)* have assessed the Croatian crisis management system's response to the COVID-19 pandemic through the lens of a systemic resilience model; *Puca et al. (2020)* have given a short epidemiological overview of the current situation on COVID-19 pandemic in Southeast European (SEE) countries. *Thu et al. (2020)* have investigated the effect of the social distancing measures on the spread of COVID-19 in 10 highly infected countries. The effectiveness of the social distancing measures on the spread of COVID-19 was diverse between the 10 analysed countries due to the difference in the levels of promulgated social distancing measures, as well as the difference in the COVID-19 spread situation at the time of promulgation between the countries.

Cvetković et al. (2020) have conducted a study on the preparedness and preventive behaviours for a pandemic disaster caused by COVID-19 in Serbia. Their findings show that there are major differences in the public's perception of risks posed by communicable disease threats such as presented by COVID-19, and their recommendation is to develop targeted strategies to enhance community and national preparedness by promoting behavioural change and improving risk management decision-making. *Biswas et al. (2020)* have implemented a similar CAS framework for evaluating the health system of Bangladesh. Their findings suggested that Bangladesh severely lacked the preparedness to tackle the spread of COVID-19 with both short- and long-term implications for health, the economy, and good governance. Absence of planning and coordination, disproportionate resource allocations, challenged infrastructure, adherence to bureaucratic delay, lack of synchronized risk communication, failing leadership of concerned authorities, and incoherent decision-making have led to large uncertainties in the coming days.

Tan (2004) has recognized 6 key concepts and approaches for crisis intervention: 1. dealing with feelings and drama associated with crisis; 2. assessing danger and threats within a short time; 3. need for strategic planning and reorganisation of the crisis situation; 4. mobilising of resources to meet the challenge; 5. establishing communication channels and education; and 6. restoring a new level of equilibrium. Furthermore, in the *Tan (2004)* study, it is highlighted that, like most contagious diseases, the social and community response to both treatment and prevention is critical to containing the spread.

Literature about the prevention, response and crisis management and strategy of different governments is scarce. Furthermore, there is a lack of studies that have compared the policies and strategies used by the governments of several transitional countries. This paper and this research are an attempt to fill in this gap.

3. METHODOLOGY AND DATA

Complex adaptive systems (CAS) are systems composed of many individual parts or agents in which patterns can emerge as a result of agents deploying "simple rules" from the "bottom-up" without external control – CAS are "self-organizing" systems. The behaviour of a complex adaptive system can be inherently uncertain and non-linear as elements of the system, the internal and external agents have multiple perturbations, changes, and interdependencies (*Martin, 2018*).

A Complex Adaptive System (CAS) is what the name suggests: a system consisting of large numbers of interacting adaptive compartments. These systems are dynamical (changes over time) and non-linear, in the sense that the behaviour of a complex system cannot be obtained by simply summing up its parts (individuals) (Santos et al., 2006).

The complex adaptive system is an emerging theoretical approach in crisis management, which is increasingly used by practitioners and scholars in situations involving ambiguity, uncertainty, and lack of control. The CAS provides a conceptual framework for allowing many diverse actors to interact locally in discontinuous, asymmetrical situations where unpredictable, shifting variables can quickly adapt to entire environments (Bolton & Stolcis, 2008).

According to Bircher & Hahn (2016), a complex adaptive system is an entity with a more or less permeable boundary between it and its nearby environment, which can take up material and energy from the environment (input), release end products (output, e.g. entropy) and do work. There are many different parts of the system- the so-called agents, that are illustrated as circles in the general model of a CAS (Figure 1).

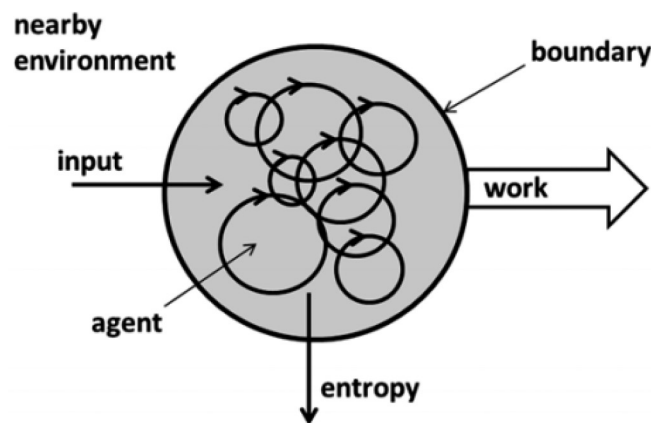


Figure 1. General model of a complex adaptive system (CAS)

Source: Bircher & Hahn, 2016

Complex Adaptive Systems (CAS) have proven to be a powerful framework for exploring thresholds and resilience and other related phenomena. As the name implies, a CAS is a system of agents that interact among themselves and/or their environment, such that even relatively simple agents with simple rules of behaviour can produce complex, emergent behaviour (Carmichael & Hadzikadic, 2019).

Four major dimensions were extracted from the crisis and complexity theories to encompass preparedness, response and crisis management, and strategy of the governments of the selected SEE transitional countries for COVID-19, and, based on these four dimensions and adapted from the study of Biswas et al. (2020), the CAS (complex adaptive system) framework for this study was assembled and formulated. These four dimensions are prevention (preventive measures), response to the crisis, emergence and crisis management and strategy. The framework and model are shown in Figure 2. Data were sourced from reports published by the authorities of the selected analysed countries, the World Health Organization (WHO), World Bank (WB), International Monetary Fund (IMF), as well as media articles up to September 30, 2020, for the situation analysis.

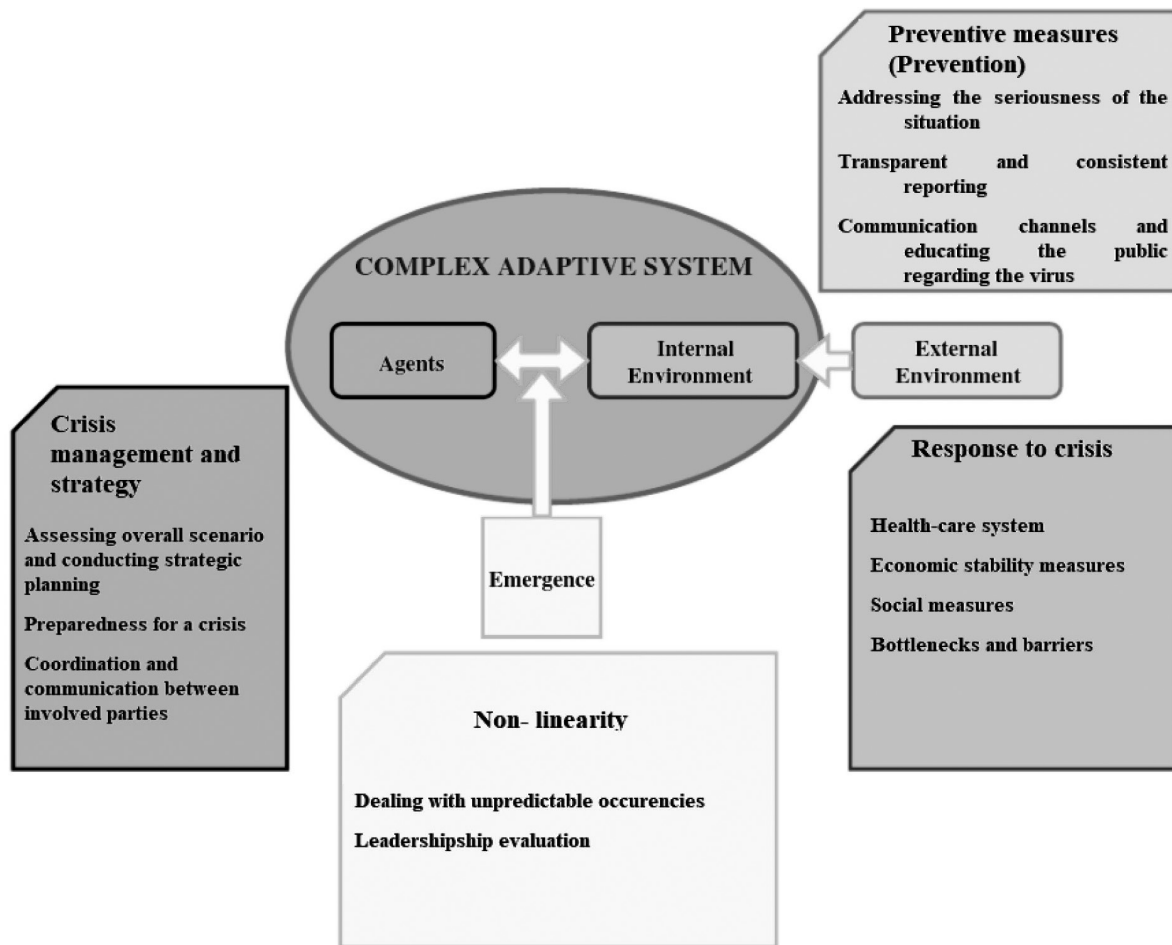


Figure 2. The complex adaptive system (CAS) framework
Source: Author, adapted from Biswas, Huq, Afiaz & Khan (2020)

4. PREVENTIVE MEASURES (PREVENTION)

4.1. Addressing the Seriousness of the Situation

When the usual ways of dealing with a situation or a problem fail, an increased tension occurs. Furthermore, to contain the problem immediate actions need to be taken to detect infection and prevent its spread. As COVID-19 (identically as SARS) primarily spread through close person-to-person contact, quarantining those infected with the virus, suspected cases, as well as those who have come into contact with SARS patients, have been enforced in many countries in order to prevent further transmission. Other safety measures included the closure of schools, closing down of a wholesale vegetable market, postponement of public events as well as issuing of travel advisory (Tan, 2004).

In this period, the response of all governments, organisations and individuals at all levels, national or international, has been put to the test.

4.2. Transparent and Consistent Reporting

Around the world, governments have been leveraging public communication to counteract disinformation and support policy. The efficacy of these actions depends on grounding them in

open government principles, chiefly transparency, to build trust in public institutions (OECD, 2020a). It is crucial to provide an accurate analysis of the COVID-19 crisis with timely, consistent and reliable information. A key priority is fostering and maintaining compliance with mitigation measures through targeted, proportionate enforcement and transparent communication (OECD, 2020b). Most governments have held daily briefings to keep citizens updated and informed.

Clarity of rules, use of discretion, and appreciation of intent: rules on “lockdown”, physical distancing etc. have not always been clear or easy to interpret. Of course, to the extent possible, unambiguous rules are preferable, to avoid abuse and maximise compliance, but there is no possibility of designing “optimal” rules, and sometimes leaving a margin of flexibility in interpretation and enforcement is necessary to avoid “regulatory unreasonableness” and excessive rigidity. Notwithstanding, the issue of information/communication and their effectiveness (or lack thereof) is essential to the overall success of COVID-19 response, and has significant regulatory aspects and implications. Indeed, the population (including the business community) trusts that the measures imposed are effective as well as authorities are competent, trustworthy and legitimate, which is essential for effectiveness – and for *continued* effectiveness (OECD, 2020b).

4.3. Establishing Communication Channels and Educating the Public Regarding the Virus

Since the vaccination against COVID-19 has been unavailable until early spring 2021, establishing communication channels and education of the public regarding the virus and public health guidance and instructions (including lockdown and social distancing) have been considered vital. This policy is often targeted at the most vulnerable community members or is aimed at informing the wider public audience about the risks to the most vulnerable. Indeed, much of the efforts in the prevention and response of a biological disaster such as the COVID-19 pandemic focus on the spreading of information at national or regional levels (Fakhrudin et al., 2020).

WHO (2020) suggests that in the time of the pandemic, countries should put in place appropriate “listening devices” (e.g. surveys, online polls) that allow health authorities to gauge population response and behaviour in an ongoing and real-time manner. These can be used to explore perceptions, acceptance of restrictions, mental and physical health, behaviours, information needs and misperceptions. This intelligence would enable authorities to anticipate how the public might react, to pilot test measures with certain segments of the population, and to adjust and mitigate early and fast.

5. RESPONSE TO PANDEMIC

5.1. Healthcare system

The interlinking of agents and their dynamic interactions across the healthcare system mirrors the characteristics of complex adaptive systems (CAS). Even though they have consisted of separate parts, they can only be fully recognized by appreciating the relationship and interconnectedness between the different parts (Paina & Peters, 2011; Agyepong et al., 2012).

Responding to a pandemic, caused by a novel virus whose behaviour and effects are initially poorly known, is an extremely challenging task. It involves taking disease-control decisions,

adopting guidelines for testing and treatment, and managing resources – all with insufficient information and extreme pressure given the potential and actual impact on human lives (OECD, 2020b). In this sense, the healthcare system is of vital importance. According to Biswas et al. (2020), a resilient healthcare system is expected to absorb the shock and adapt to dynamic needs while maintaining the existing level of healthcare accessibility. However, the health system has faced difficulties, both in terms of the psychological consequences that the pandemic will undoubtedly cause and in terms of the unavailability of basic health services (Čokolić et al., 2020).

5.2. Economic Stability Measures

Regarding the economic implications of the COVID-19 pandemic, it will take time for them to come into full view. But some of the costs are already becoming apparent, beginning with the devastation the crisis will wreak on the global workforce. With climate change also threatening to hurt the world's most vulnerable workers, the need for a holistic crisis response that emphasises both justice and sustainability could not be greater (Abou-Jaoudé & Robbins, 2020).

The COVID-19 pandemic has caused a huge economic and human cost since its outbreak in early 2020. But the economic consequences of the pandemic are still not well understood. The social distancing measures and especially the lockdowns that were introduced to contain the pandemic have had a systemic impact on the global economy. With the closure of stores, restaurants, and nonessential businesses came unprecedentedly high unemployment rates and sharp declines in personal incomes. In many countries, there were questions about whether the “cure was worse than the disease,” claiming that the economic downturn was more severe than the human cost these interventions were trying to prevent (WB, 2020).

Table 1. Economic support packages

	Expenditure measures				Revenue measures			Other	
	Increased health spending	Support to firms/ SMEs/ sectors	Support to vulnerable population (low-income households; children/families; informal workers)	Employment/ job support	Tax cuts to households	Tax cuts to firms/ SMEs	Tax payment deferrals, credits, or refunds	Liquidity/ credit measures	Oil wealth fund
Albania	x	x	x	x			x	x	
Bosnia and Herzegovina	x	x	x		x	x	x	x	
Croatia	x	x		x		x	x	x	
Kosovo	x	x	x	x			x	x	
Montenegro		x	x	x			x	x	
North Macedonia	x	x	x	x				x	
Serbia	x	x	x	x			x	x	

Source: World Bank ECA economic update (2020)

Most of the region's central banks in this period have responded to deteriorating growth prospects through expansionary monetary policy, including unconventional policies such as asset purchases. Central banks in Croatia and Serbia have intervened in foreign exchange markets to stabilize their currencies and mitigate volatility. Despite measures to protect jobs, unemployment claims and the number of registered unemployed workers have increased sharply in Serbia and Croatia. Economic packages have included support to vulnerable households, as well as to firms, particularly those in critical sectors or industries. Many countries have boosted health care spending (Croatia); provided tax payment deferrals, credits, or refunds (Albania, Croatia); subsidized utility costs (Montenegro) or postponed utility tariff increase; offered vouchers or

support for the tourism sector (Croatia, and North Macedonia); and expanded social protection coverage. Employment protection measures, including short-term work schemes or wage subsidies, have also been an important component of support packages (Albania, Central Europe, North Macedonia), with experience suggesting that such measures were effective at providing income support and limiting job losses, as well as avoiding costly search and matching processes as the economy recovered – Table 1 (WB, 2020; OECD, 2020c).

Central banks in the Western Balkans have also cut policy interest rates this year to record lows to deal with the economic fallout of the COVID-19 pandemic (Albania, North Macedonia, and Serbia) (WB, 2020).

5.3. Social Measures

The Covid-19 pandemic has had a profound impact on lives and livelihoods around the world. Many countries have taken unprecedented measures to extend social safety nets, especially for vulnerable groups such as low-income households, children and young people, women, low-skilled workers, part-time or temporary workers, and the self-employed (OECD, 2020c).

According to CDC, Social Distancing is important to slow the spread. It recommends considering social distancing options to travel safely when running errands or commuting to and from work; limiting contact when running errands (if possible, using drive-through); choosing safe social activities (using video chats and social media) and keeping the distance at events and gatherings. Leveraging the social and economic implications of the COVID-19 pandemic is an essential pillar of the transition strategy. The transition phase can only be properly managed if the public is effectively engaged and ready to support the measures being implemented. Social and economic support measures are critical to ensure societal resilience during this difficult phase so that no one is left behind (WHO, 2020).

The social distancing measures, which are called “lockdown” have been considered and promulgated in order to limit human interaction at close distances in certain regions as well as in a national scale (Thu et al., 2020). Adverse social, psychological and economic consequences of a complete or near-complete lockdown demand the development of more moderate contact-reduction policies (Block et al., 2020). Furthermore, social distancing has been presented as the safest and most important measure in stopping the spread of the COVID-19. However, establishing and keeping contact with people, developing trust and relationship building are important in crisis management, whether it is with the individual or the community. The role of social workers nowadays is not only to help COVID-19 patients but also to help their families and the communities to cope with the emotional distress and to ease the regaining of a normal life thereafter. As the stakes for the crisis are high, high profile management and response are needed as shown by political and religious leaders coming out to allay fears, identifying with the afflicted and comforting those who are grieving (Tan, 2004).

5.4. Bottlenecks and Barriers

While the response to the pandemic is primarily an epidemiological and healthcare concern, it involves regulatory issues at nearly every stage, and specifically many regulatory delivery instruments – permits and approvals, inspections and enforcement, etc. (OECD, 2020b). Consistent and reliable communication and reporting to the public is a vital bottleneck for response

and preparedness in a pandemic. This kind of communication includes understanding public perceptions and promptly addressing misinformation (Biswas et al., 2020). Other than that, OECD (2020b) recognizes two main issues: *costs*: in countries with a single-payer health care system or other publicly funded health-care coverage, governments may have been or still be reluctant or unable to cover the increased costs of tests provided by laboratories outside of the public provider network, and/or to approve testing for patients that do not fit strict guidelines for selection; and *supply*: testing, as long as a broader variety of testing methods is not available and/or validated, can be hampered by an insufficient supply of key reagents.

6. EMERGENCE (NON- LINEARITY)

6.1. Dealing with Unpredictable Occurrences

„Pandemics force humans to think outside of the box, or in the case of COVID-19, outside the typical emergency management cycle. In other words, while four phases to reduce the impact of a natural hazard (preparedness, response, recovery, and mitigation) are principally linear, the response and recovery phases for a pandemic are essentially non-linear. Unlike earthquakes, cyclones or other natural hazards, which are usually one-off events occurring within a limited period, COVID-19 or any other pandemic, tend to return in several waves over a prolonged period – until the effective vaccine or herd immunity is in place“ (Fakhruddin et al., 2020).

Advanced economies with strong governance capacity, well-equipped health care systems, and the privilege of issuing reserve currencies are relatively better placed to weather this crisis. But several emerging market and developing economies without similar assets and confronting simultaneous health, economic, and financial crises will need help from advanced economy bilateral creditors and international financial institutions (IMF, 2020).

6.2. Leadership Evaluation

Evaluating leadership as a skill of leaders of different governments has been highlighted in this pandemic. A proactive and innovative approach is expected of today's leaders. Strategic leaders play a vital role in organizing to the “edge of chaos” and aid in learning and adaptation by affecting the tags that produce the structure of interactions among various agents. Through dialogue and storytelling, strategic leaders shape the evolution of agent interactions and construct the shared meanings that provide the rationale for included agents (Boal & Schultz, 2007). This view is consistent with the novel approach in complexity science from Lichtenstein et al. (2006), the notion that leadership is an emergent event, an outcome of relational interactions among agents. Leadership (as opposed to leaders) can be recognized as a complex dynamic process that emerges in the interactive “spaces between” people and ideas. In this sense, leadership is a dynamic that triumphs the capabilities of individuals alone and is the result of interaction, tension, and exchange rules governing changes in perceptions and understanding.

According to Srblijinović et al. (2020), leadership should first and foremost be credible, in terms of leading by example, which provides more credibility than solely pointing out other people's faults and mistakes. When the same leaders, who were justifying strict lockdown, a month or so later become reluctant to introduce any measures, it represents an inconsistent and confusing message for the public. Such policy changes need to be clearly and patiently explained to citizens.

7. CRISIS MANAGEMENT AND STRATEGY

7.1. Assessing Overall Scenario and Conducting Strategic Planning

A quick and comprehensive assessment of the crisis, person (or system) and the situation, is necessary in order for the constructive intervention to begin. Crisis intervention and management is essentially a problem-solving process with the change agent assuming greater control of the process. The strategy of crisis management is to simplify or redefine the problem or situation, therefore making it more manageable and approachable. The next step is to prioritise the problems and explore all the possible alternatives. A workable action plan is then formulated and implemented. For the effective management of the COVID-19 crisis, strategic high-level planning, decision making and implementation are vital (Tan, 2004).

7.2. Preparedness for a Crisis

Horizon scanning and preparedness to adapt to the new situation that has hit the world in early 2020 has been of crucial importance. The health system must remain prepared for a potential upsurge of cases during the transition which requires creating “elasticity” in the use of acute and intensive care facilities. Other than that, it is important to retain preparedness and readiness for the COVID-19 response via addressing bottlenecks to further scale up the capacity to identify, isolate, test, treat all patients and trace and quarantine contacts; creating public health and laboratory surge capacity by joining forces with primary health care, invest in mobile services and digital technologies to aid the process; involving communities to enable people to be the frontline workers to protect their health and wellbeing; creating a step-wise elastic and flexible plan for acute and intensive care use, as well as establishing and maintaining a mobile pool of resources at national level (e.g. ventilators, PPE, staff, etc.) and a protocol for its (re)deployment on to area(s) of a new potential outbreak (WHO, 2020).

7.3. Coordination and Communication Between Involved Parties

Coordination and accountability are vital elements in forming an effective response to events such as COVID-19. Therefore, such mechanisms need to channel the implementation of evidence-based decision-making at the central level for its contextualization to the needs at the local level. Coordination also requires the incorporation of feedback from communities addressing their concerns that may be causing emotional distress and the development of effective relationships at the local level (Biswas et al., 2020).

8. RESULTS AND DISCUSSION

What is crucial for this study is that it evaluates the prevention, preparedness, response and crisis management and strategies used by the selected South-eastern European transitional countries (Albania, Bosnia and Herzegovina, Croatia, Kosovo, Montenegro, North Macedonia and Serbia).

The results of the CAS framework show that the analysed countries have performed quite solidly during the COVID-19 pandemic. Namely, most of them have properly addressed the seriousness of the situation (there are some concerns regarding the Republic of North Macedonia and Serbia about timely and effective decisions and lack of clear procedures and frequent change

of instructions, respectively). There are some opinions that Kosovo was the only country in the region that failed to apply swift, extraordinary measures to limit the spread of the pandemic (Kuzmanovic & Savic, 2020). Opposed to Kosovo, due to its proximity and close links to Italy, Albania adopted some of the toughest lockdown measures in Europe. They have adopted restrictive measures regarding public health as well as social measures on March 09, 2020. All of these transitional SEE countries have implemented timely healthcare, economic and social measures. Economic measures have been introduced as fiscal and monetary measures, whereas most often social measures were the prohibition of movement and curfew, closure of borders, suspension of flights, closure of education institutions, closure of coffee-bars and restaurants as well as the recommendation of working from home for the public and private sector.

Regarding the bottlenecks and barriers these countries have faced, the organizational issues in Bosnia and Herzegovina should be mentioned (cantonal and entity level) and the discoordination at these levels as a bottleneck and barrier to better respond to the pandemic; Albania, on the other hand, has faced two back-to-back shocks after the devastating earthquake in November 2019; the early easing of restrictive measures has been seen as counter-productive in Croatia; the weak delivery system of the healthcare system and the weakness of the total health system in Kosovo has been recognized as a bottleneck together with the restructuring of the Ministry of Health and its key management in the heat of the pandemic; there were problems with certain municipalities in North Macedonia, who appeared to be constant COVID-19 hot-spots; and the brain drain and insufficient resources, respirators and capacity in the Republic of Serbia. Montenegro has shown exquisite performance and no bottlenecks have been recognized thus far. The reason behind this performance can be explained with the Montenegrin Action Plan for improvement of the monitoring & response system for infectious diseases (2017-2022) together with the National Plan for Preparedness and Response to COVID-19. Montenegro has published a Strategy for Disaster Risk Reduction (2018-2023) before the COVID-19 pandemic and they have shown a thorough situational analysis and risk assessment of infectious diseases, epidemics and pandemics.

Table 2. Effective vs. Ineffective government responses

Effective responses	Ineffective responses
Transparent governance, collaborative structures	Top-down governance, bureaucratic structures
Efficient and effective information dissemination	Lack of knowledge on how to disseminate information correctly
Modern information technologies and well-developed communication channels	Poor technology and fragmented communication channels
Dissemination of information to targeted population in a transparent manner, resulting in trust and engagement by the public	Inadequate/inconsistent information or misinformation, resulting in mistrust by the public
Strong community vigilance through public education and incentives	Weak community vigilance and lack of public education measures
Strong collaboration of major parties including city councils, citizens, and community volunteers	Lack of collaboration between major parties with the lack of risk management integration into major sectors (e.g., health, infrastructure, tourism, environment)
Evidence-based decision making, with the effective use of big data	Lack of data interoperability and meta data standardisation
Stringent hospital infection control measures, hygiene practices and use of personal protective equipment designating separate zones within the hospital or certain hospitals for infected patients only	Inadequate personal protective equipment and hygiene practices, no separation between the infected and non-infected patients
Continuing support during the lockdown	Lack of support to community in lockdown

Source: Fakhruddin et al. (2020)

Table 3. CAS Framework: Results

CAS Framework- RESULTS		Albania	Bosnia and Herzegovina	Croatia	Kosovo
1. Preventive measures	1. Addressing the seriousness of the situation	Extensive rigorous public health restrictive measures to control its spread (March 09, 2020)	Exceed institutional autonomy and make coherent state documents to equalize all measures.	Timely & in accordance with other EU countries.	Kosovo does not currently have any Law on Emergencies. A modus-operandi within the National Strategy for COVID-19
	2. Transparent and consistent reporting	Yes	Yes	Yes	Yes
	3. Communication channels and educating the public regarding the virus	Information on response measures and outbreak severity on a daily basis	Special communication channel of the health sector and specialized web pages	TV commercials, mobile app, and daily Civil Protection Authority conferences	A specialized COVID web page with very little information
2. Response to pandemic	1. Health-care system	Monthly remuneration for medical personnel, public health specialists dealing with COVID-19	Federal Civil Protection Authority	Civil Protection Authority + Interventional procurement of essential health supplies	EUR 6 million additional budget allocation for the Health Ministry; vital personnel receive extra 300 EUR monthly
	2. Economic stability measures	Two support packages for affected by the COVID-19 pandemic (2.8 percent of GDP)	Programme of Economic Stabilisation 2020-2021	Measures of a combined worth of over EUR 3.9 billion	Economic Recovery Programme, EUR 365 million, total of EUR 570 million for economic recovery
	3. Social measures	Prohibition of movement and curfew, closure of borders, suspension of flights, closure of education institutions	Prohibition of movement and curfew	The government subsidizes the salaries of workers who cannot come to work due to the epidemic with a sum of (EUR 524 per worker.	Social assistance allowance will be doubled for the period March– May 2020, amounting to EUR 7.65 million
	4. Bottlenecks and barriers	Albania is faced with two back-to-back shocks, after a devastating earthquake in 2019	Organizational issues (cantonal and entity level)	Relatively early easing of measures- due to tourism	At the height of the pandemic, Kosovo fired the health minister and key management people of that sector (Kuzmanovic & Savic, 2020).
3. Emergence (Non-linearity)	1. Dealing with unpredictable occurrences	Satisfactory	Satisfactory	Satisfactory	Satisfactory
	2. Leadership evaluation	Satisfactory	Satisfactory	Satisfactory	Satisfactory

4. Crisis management and strategy	1. Assessing overall scenario and conducting strategic planning	Albania adopted some of the toughest lockdown measures in Europe.	Risk has been recognized and timely measures had been taken	Existence of Crisis Headquarters of the Ministry of Health was essential.	The public health response to the pandemic is led by the health system in Kosovo, with limited capacity to the rising demands due to COVID-19
	2. Preparedness for a crisis	Satisfactory	Satisfactory	Satisfactory	Satisfactory
	3. Coordination and communication between involved parties	Satisfactory. Central Government focused on the overall management of the crisis, municipalities were at the frontline.	Certain peculiarities in organization of the security system-cantonal and entity level (Smajić, 2020).	Satisfactory	Satisfactory, considering the weak delivery systems and the weakness of the health system.

CAS Framework- RESULTS		Montenegro	North Macedonia	Serbia
1. Preventive measures	1. Addressing the seriousness of the situation	Situational analysis and risk assessment of infectious diseases, epidemics and pandemics	Contagion from first hotspots increased concern about timely & effective decisions (Georgieva & Mitrevska, 2020).	Lack of clear procedures and frequent change of instructions.
	2. Transparent and consistent reporting	Yes	Yes	Yes
	3. Communication channels and educating the public regarding the virus	National Coordination Body for Infectious Diseases (NCB) acted proactively, with regular daily press-conferences (Injac, 2020).	National Health 2020 Strategy Platform	A lot of mistakes in crisis communication (Kešetović, 2020). Specialized web page and a telephone
2. Response to pandemic	1. Health-care system	National Plan for Preparedness and Response to COVID-19	Main Coordination Crisis Headquarters (MCCH)	Two ad hoc crisis teams
	2. Economic stability measures	Various fiscal and monetary measures	EUR 1 billion: 31 measures, "solid COVID-19 fund" to collect donations from the civil society. The government implemented a fiscal package (0.2% of GDP)	Various measures + Innovation Fund
	3. Social measures	Curfew, distance learning and online courses	Prohibition of movement and curfew	Prohibition of movement and curfew
	4. Bottlenecks and barriers	None. Exquisite performance.	Certain municipalities-crisis situation & constant hotspots	Brain drain, insufficient resources, respirators & capacity

3. Emergence (Non- linearity)	1. Dealing with unpredictable occurrences	Satisfactory. Action Plan for improvement of the monitoring & response system for inf. diseases (2017-2022)	Satisfactory. Early easing of restrictive measures was counterproductive (Georgieva & Mitrevska, 2020).	Satisfactory
	2. Leadership evaluation	Satisfactory	Satisfactory	Satisfactory
4. Crisis management and strategy	1. Assessing overall scenario and conducting strategic planning	Strategy for Disaster Risk Reduction (2018-2023); Law on Protection of Population of Inf. Diseases	Operational plan and Manual for Risk Management in Pandemic Influenza	The risks and dangers were recognized in Disaster Risk Assessment (2019)
	2. Preparedness for a crisis	Satisfactory	Satisfactory	Satisfactory. Cvetković et al. (2020) study results in rather negative perception of the public.
	3. Coordination and communication between involved parties	Satisfactory	Satisfactory	Satisfactory

Source: Author, based on official data (OECD, WB and national institutions)

On the positive side, all of the analysed transitional SEE countries have shown a preparedness to deal with a pandemic and have implemented timely economic and social measures in order to fight COVID-19. Serbia seems to be the only exception in this matter. Namely, Cvetković et al. (2020) have conducted a study on the preparedness and preventive behaviours for a pandemic disaster caused by COVID-19 in Serbia, with ratings of $X = 2.76$ for local government preparedness and state preparedness ($X = 3.12$), which is relatively low. They have all implemented transparent and consistent reporting and have properly reacted and dealt with unpredictable occurrences. The governments of the analysed countries have set up communication channels in form of specialized web pages and even mobile applications in order to stay connected and to inform the public regarding the situation with COVID-19. The leadership shown in a crisis like this has been satisfactory in all of the selected countries. The detailed results of the CAS framework are shown on the next two pages. According to Fakhrudin et al. (2020), different governments will be broadly categorised as *effective* or *ineffective*. By *effective* measures, they include collaborative structures, transparent communication, well-developed information technologies and communication systems combined with rigorous public health measures; in contrast, *ineffective* responses were considered those that rely on bureaucratic structures, weak information and communication technologies and inadequate public health measures (Table 2).

9. CONCLUSION

The COVID-19 pandemic has sunk the world economy into the deepest recession in the last 80 years. In the emerging and developing countries of Europe and Central Asia, GDP has been expected to contract 4.4 percent in 2020. Growth is projected to recover in 2021, but the pace of recovery is highly uncertain and depends on the duration of the pandemic, the availability and distribution of a vaccine, and the degree of improvement in trade and investment. The recovery

could be weaker than expected if the pandemic worsens, necessitating prolonged restrictive measures and/or escalating geopolitical tensions (WB, 2020). The two great crises of the XXI. century – the Great recession 2008/09 and the corona crisis of 2020 have introduced us to a new century in which markets and technological advances will continue to drive growth, but fluctuations around the long-term trend will increase (Agyepong et al., 2012).

In the SEE economies, the coronavirus pandemic has led to a remarkable slowdown, which heavily relies on trade with and investments from the EU, particularly Germany and Italy. Unemployment in the SEE economies is expected to rise again and labour market conditions may deteriorate further, as a significant share of the workforce lives abroad (between 20-25% of the population). Poverty rates may increase if remittances are suspended, as remittances constitute 10% of GDP in the Western Balkans. Within the domestic markets, the sectors of SMEs, manufacturing and tourism will be most affected by the pandemic (OECD, 2020c).

This paper is among the first to elaborate on how the COVID-19 pandemic has influenced CEE countries and which measures had been taken from the side of SEE governments in order to tackle the COVID-19 pandemic. It thereby provides a unique and timely commentary about how coronavirus has altered different societies and economies.

The topic in this article is rather important and contemporary. However, there are some limitations of this study. First and foremost, the topic itself is crucial to the economies and countries analysed and due to the unavailability of scientific research and methodologies utilized to assess the impact of the pandemic on these countries, it may seem that the author has made some arbitrary assumptions regarding the responses of governments. The author however has used the available data, press releases and scientific reports in order to give the public a broader perspective and a comparison of what each analysed government had undertaken in 2020. Still, if governments have conducted all that could have been done in the available time with the available resources, it is quite difficult to make comparison to other countries that started from a different position and did not have the same amount of information and the same resources. Different countries have adopted different containment and testing strategies for SARS-CoV-2 and those differences in testing make it difficult to compare the effect of different containment strategies as well (Middelburg & Rosendaal, 2020). Regarding Covid-19, the world has witnessed that much mutually contradictory information has been input and a basis for official decision making and that only posteriori one can definitely decide what were the optimal (and correspondingly, what were bad) decisions. Furthermore, it still cannot be scientifically proven which ones of the decisions have been optimal and which have not. What we know is, if the Covid-19 pandemic has learned humanity a lesson up until now, that we were not prepared for it (Bird et al., 2020).

Second, another limitation of this study is to elaborate on the social and economical effects and implications of the COVID-19 pandemic. Bearing in mind that the COVID-19 pandemic is still ongoing, further statistical analysis should continue. However, the effects and implications could be quantified as soon as the pandemic ends. The CAS framework model used in this paper conveys the underlying complexity of crisis management systems. Future work should extend this study in terms of modelling approaches, the sample of analysed countries, and the time covered. It can also be extended to lower, sub-national, as well as higher, supra-national levels, such as the EU.

This framework has helped run and conduct a comparative analysis of the prevention, preparedness and response to the pandemic in selected South-eastern European countries and assess the

steps taken so far for tackling the COVID-19 crisis up to September 2020. The results have shown that all the analysed countries have introduced fiscal (economic), social and healthcare measures. There is a need for greater communication and coordination between different agents (institutions), as well as cooperation between entities in Bosnia and Herzegovina, but other than that, it can be concluded that these transitional countries have recognized the high risk and introduced timely measures in accordance with the actual situation. In times of crisis like this pandemic, it is crucial to act upon the information at hand, show leadership, give a solid response to it, embrace its non-linearity and plan strategically and build a coherent system of crisis management.

Systems thinking concepts and frameworks, such as the complex adaptive systems framework used in this analysis, are very valuable methods for analysing policies and are quite relevant to researchers, scholars, policy analysts and policy makers (Agyepong et al., 2012). Additionally, there are some key recommendations for improving the crisis management techniques that could be drawn from this study. According to OECD (2020b), what would be useful is to do an in-depth analysis and see what has been done well and what less well at all levels – from the political to professional to individuals. An in-depth analysis of previous crisis is crucial, in order to turn identified lessons into practice, changing the way governments and institutions organize and act, all in order to be more successful next time in less time, by investing less financially and with less stress. More importantly, it is vital to adopt improvements at all levels and make them a procedure, faster, more efficiently and more transparently. Smajić (2020) recommends establishing a security risk registry in line with international standards and regulations that would perform a gradation of the security situation (security risk measurement matrix) in each country based on the performed security risk measurement, analysis and classification. Furthermore, he recommends formation of specialized sub-staffs/teams in health, economic and legal sectors in order to overcome the COVID-19 crisis as well as a state-level procedure and minimum national standards and procedures at all levels in case of emergence of the new crisis.

In the future, pandemics like COVID-19 should be addressed differently and an integrated approach is required. Notwithstanding, the concept of a pandemic should move into an interdisciplinary science, with an integrated approach of medical science and public health with medical research and development, social sciences, diplomacy, biomedical science, big data, information technology, artificial intelligence, statistics, meteorology, biotechnology, ecology and so on – combined to provide an integrated cycle of prevention, preparation, response and recovery (Thu et al., 2020). Finally, a protocol should be put in place for a smoother and sustainable transition between the lockdown period and normality. A predefined procedure on steps from lockdown to cautioned opening should be documented and followed. For a long-term transition process to achieve normalcy, awareness of health literacy, close monitoring, data-driven decision making, and coordinated efforts from all relevant stakeholders are of greatest importance (WIR, 2020).

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