

Resilient Leadership in Crisis: Strategies for Navigating Economic and Operational Disruptions in a Volatile World

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Abstract

This paper explores the concept of resilient leadership in the context of economic and operational disruptions, emphasizing the critical role that such leadership plays in navigating crises. Resilient leaders demonstrate adaptability, emotional intelligence, and a solutions-oriented mindset, essential for fostering a supportive organizational culture. The study highlights the increasing volatility of the global economy, characterized by rapid technological changes and geopolitical uncertainties, necessitating a shift in leadership strategies. By examining the impact of servant leadership on organizational resilience, this research proposes that developing resilient leaders can enhance the overall resilience capabilities of organizations. The findings underscore the importance of preparing for both natural and man-made disruptions, advocating for proactive measures to mitigate risks and foster adaptability within teams.

Keywords: resilient leadership, crisis management, economic disruptions, servant leadership, organizational resilience

Introduction

1. Resilient Leadership in Crisis

Simply put, resilience is the ability to handle and adapt to adversity. Barbara elaborates, “Resilience is about our recovery rate. It’s a skill we can learn to deal with stressful situations better.” Resilience is important for leaders to thrive and grow. The ability to persevere and persist with unwavering hope is perhaps the ultimate mark of an impactful leader. Leaders must manage their energy and that of the people they lead, so they must remain flexible amidst uncertainty. As Inputs it, “The more rigid you become, the easier you are to break.”

Grant adds that resilient leadership is also about self and social awareness. “Today’s resilient leadership is required to strengthen awareness of system dynamics and possible future states,” he says. A resilient leader is someone who can effectively navigate challenges and adversity, maintaining a positive outlook even in tough situations. They possess strong emotional intelligence, allowing them to manage their own emotions and understand those of their team. This ability fosters a supportive atmosphere where everyone feels valued.

Adaptability is another hallmark of a resilient leader; they remain flexible and open to change, adjusting their strategies as circumstances evolve. They approach problems with a solutions-oriented mindset, viewing challenges as opportunities for growth rather than insurmountable obstacles. Their clear vision and sense of purpose inspire their team to stay focused and motivated, even during difficult times.

Persistence and determination are also key traits; resilient leaders encourage their team to persevere and keep pushing forward despite setbacks. Open communication is essential as well, as it helps build trust and provides guidance. Ultimately, a resilient leader fosters a culture of resilience, empowering others to adapt and thrive alongside them.

Importance of Resilient Leadership for Organizational Survival and Growth

We all seem to recognize that we live in changing times with rapid advances and wider interactions with nature, ecosystems, and societal concerns. We turn to our leaders for guidance and direction in such unprecedented times. Indeed, leaders are crucial to navigating and guiding organizations, especially in times of turbulence, change, and uncertainty. We often lament the qualities and capability of our leaders, political or otherwise. Nicholson observes that there are times when, manifestly, we would be better off without leaders, especially when we watch venal, greedy, lustful, punitive, and selfish leaders at play. At other times we may want to question if we get the leaders we deserve:

‘Many of the leaders we encounter in all spheres of life place their desire to be right above the wish to achieve the right outcome. ... As a result, many followers, citizens, and workers remain concerned by the apparent lack of leadership skills. The World Economic Forum identified lack of leadership as one of the major global challenges facing the world in 201 and commissioned a survey to investigate further. A staggering 86% of respondents worldwide agreed that there is currently a global leadership crisis.’ (Dalcher, 2017: p.2)

Leaders with a high level of resilience can respond in positive ways to crises their organizations may encounter and, by exhibiting that resilience and those positive responses, can increase the level of resilience of those around them. Servant leaders focus their efforts on meeting the psychological needs and health of their followers and are therefore well placed to positively impact subordinate resilience. This article explores the ability of servant leadership to positively impact and grow the resilient capacity of those impacted by the servant leader. It proposes that HRD professionals can increase the resilience capabilities of an organization through the development of servant leaders who also exhibit resilient behaviors. (Eliot.J, 2020)

Context: Economic and Operational Challenges in a Volatile World

For the foreseeable future, the global economy will be volatile. Indeed, some would say that the only certainty in the global economy in the coming years is uncertainty. The challenge -- for governments, for businesses, for non-profits, and individuals -- will be to prepare for and adapt to enduring volatility and uncertainty. Agreed that there are many certainties: an accelerating climate crisis; demographic changes that will slow growth in the West and China; the increasing digitization of everything with pervasive platforms and the ever-greater capabilities of AI; and the growing economic and geopolitical power of China are the most important examples. But within these certainties are a vast array of uncertainties.

There are uncertainties of both time and scale: how fast will climate change disrupt societies and transform economies; how broadly will AI affect the organization of production and work; how much and how rapidly will China’s economic power expand and how will it be exercised; and how will economic and geopolitical competition between the US and China affect cross-border flows of goods, capital and people. Not only are there uncertainties within seeming certainties, but the sequence of disruptions or crises—what economists euphemistically call “exogenous” shocks -is likely to affect the outcomes. As an example, geo-political conflicts, such as the Ukraine war, which could not be predicted, will influence policy and outcomes in climate, energy security, global supply systems, national policy, and international alliances. Should we, then, anticipate a long epoch of volatility that will define options for a generation? Or will this

volatility prove an interregnum, a prelude to a new era? That era, an emergent global economy “regime”, will not be set by the neoliberal policy preferences of the US. The post-WW2 era was shaped by the US, then the single dominant economy and polity in the West. Rather the emergent order will reflect multi-polar competition, economic position, goals, and international rules. Economic interconnections will persist and expand, but both the existing geo-political and geo-economic orders will be reconfigured. This period of volatility, of uncertainty, is a time in which projections are difficult, and indeed may be fools’ gold. (Tyson. L and Zysman.J, 2023)

2. Understanding Economic and Operational Disruptions

Types of Economic Disruptions

Disruptions such as natural and man-made disasters are becoming more frequent and more costly. The cost of natural disasters has risen from an average of \$50 billion per year in the 1980s to an average of \$200 billion in the past 10 years. According to Kristalina Georgieva, European Commissioner for Humanitarian Aid and Crisis Response, every dollar spent on preparing for natural disasters prevents \$4 worth of damages. However, only 4% of the amount of money spent on natural disasters is allocated towards preparing for them, whereas 96% of it goes to the recovery process.

The United States has experienced catastrophic disruptions, such as Hurricane Katrina, with inadequate preparedness measures. A study by the United Nations Food and Agriculture Organization reiterates that natural disasters are becoming more frequent and costly. About \$1.5 trillion in economic losses from natural disasters occurred from 2003 to 2013. These disasters have taken the lives of 1.1 million people and affected another 2 million people. In general, the direct costs associated with natural and man-made disasters come in the form of lost lives, damaged infrastructure, and business closures. Indirect costs associated with disasters occur when businesses and consumers that are directly impacted reduce their purchases of goods and services from other businesses.

For example, Hurricane Katrina may have cost up to \$149 billion and the September 11 terrorist attacks may have cost the United States \$108 billion. Governments and other organizations have acknowledged the need to mitigate disasters and the risks associated with them. The United Nations International Strategy for Disaster Reduction (UNISDR) coordinates efforts in disaster reduction and humanitarian aid (UN General Assembly Resolution 56/195). The organization’s work focuses on implementing strategies to reduce the damage caused by natural disasters. In the United States, the Department of Homeland Security was established after the September 11 attack to focus on all threats to the nation and protect the United States from another terrorist attack. With disasters becoming extremely costly and occurring more frequently, preparing and planning for them is necessary. However, authorities face difficulties in assessing which regions take priority and on which disruptions to focus. Authorities need to decide where to allocate funds and how to prepare for disasters. Understanding the potential risks associated with disasters and their consequences can help authorities decide how best to plan for these disruptions. This paper can help authorities understand the consequences of these disasters by examining disruptions from other studies and summarizing their key components with a focus on the economic consequences—both direct and indirect costs—of disruptions. (Kazimi.A and Mackenzie .C, 2016)

Operational Disruptions and Challenges

Disruption to operations (including supply chains) as a result of natural and man-made disasters is an unavoidable risk that confronts firms (Ivanov and Dolgui, 2019; Chowdhury et al., 2019), with efficacy to threaten the survival of firms (Manhart et al., 2020; Haraguchi and Lall, 2015). Evidence shows that

disruption to operations has direct and immediate negative consequences on operations systems and efficiency.

While supply chain and operations researchers continue to debate the nature of the resilience construct (Manhart et al., 2020; Pettit et al., 2019), it is important to clarify aspects of this body of research. An assessment of the literature shows evidence of potential confusion on the conceptualization of resilience, which largely results from authors focusing on different resilience elements and different levels of analysis of resilience elements. While “resilience elements” refer to conceptual components of resilience, “level of analysis” refers to the type of system within which resilience is applied.

The technological revolution has profoundly transformed the landscape of our world, ushering in an era marked by unprecedented advancements in science and innovation. This epochal shift has been fueled by the relentless march of technology, shaping the way we live, work, and interact on a global scale. From the advent of the internet to the proliferation of artificial intelligence, this revolution has unfolded across various domains, leaving an indelible impact on every facet of human existence.

In this context, the technological revolution is not just a collection of discrete advancements but a holistic transformation that touches every aspect of our existence. From healthcare to education, from communication to entertainment, technology has become the driving force shaping our present and determining our future. The challenges and opportunities that accompany this revolution demand a nuanced understanding of the ethical, social, and economic dimensions of technological progress. In the following paragraphs, we will delve into specific aspects of this revolution, exploring key trends, challenges, and the potential trajectory of the ever-evolving technological landscape. (Popov.A, 2023)

Impact of Disruptions on Organizational Performance and Strategy

Disruptions in the business environment, whether stemming from technological advancements, market changes, or global events, have profound implications for organizational performance and strategy. When faced with disruption, companies often encounter significant challenges that can affect their operations, market positioning, and overall resilience. Operational efficiency tends to be one of the first areas impacted. Disruptions can interrupt supply chains and reduce productivity, forcing organizations to reevaluate how they manage resources. However, these challenges also present opportunities for innovation. Companies may be motivated to streamline processes, adopt new technologies, or explore automation to enhance efficiency in the face of adversity.

Market positioning can also shift dramatically during times of disruption. Competitors may exploit these situations to capture market share, compelling organizations to reassess their strategies and positioning. On the flip side, companies that remain agile can pivot to address emerging customer needs or explore new markets that arise from changing consumer behaviors.

Strategic planning is another area that feels the impact of disruption. Long-term plans may quickly become obsolete, necessitating a more flexible approach. This environment fosters a culture of adaptability, where organizations are encouraged to reevaluate their strategic goals regularly. The implications for talent management are also significant. Disruptions might lead to workforce reductions or talent shortages, putting pressure on organizations to retain and develop their workforce. Investing in upskilling and reskilling employees can help align talent with new strategic priorities, turning a potential challenge into a strength. Financial performance is typically affected, as disruptions can result in revenue losses and increased operational costs. Yet, companies that adapt swiftly may discover new revenue streams and cost-saving measures that could ultimately improve their financial health.

Furthermore, disruptions often expose vulnerabilities in risk management frameworks. Organizations mu-

st enhance their risk assessment processes and develop more robust contingency plans, ensuring they are better prepared for future challenges and difficulties.

3. Core Strategies for Resilient Leadership in Times of Crisis

Agility and Adaptability in Crisis Situations

Within the context of crisis management, the concept of adaptive leadership has emerged as a crucial determinant of organizational resilience and effective response strategies. The comprehensive analysis of existing literature emphasized the pivotal role of adaptive leadership behaviors in navigating the complexities of crises and fostering organizational agility. Notably, the findings consistently underscored the significance of adaptive leadership in enabling organizations to proactively respond to evolving challenges and uncertainties.

According to Madi Odeh, et al. (2023), fostering a culture of adaptability is paramount in facilitating effective crisis management. Their work highlights the importance of challenging traditional norms, encouraging open communication, and fostering a climate of continuous learning within organizations. This emphasis on cultivating adaptability aligns with the findings of the study, which highlighted the instrumental role of adaptive leadership in encouraging organizational flexibility and resilience during times of crisis (Kilag, et al., 2023). Moreover, the research emphasized the value of promoting collaborative problem-solving as a key adaptive leadership behavior. The collaborative approach advocated by adaptive leaders fosters a sense of collective ownership and accountability, enabling teams to leverage diverse perspectives and expertise in developing innovative solutions to complex crises (Kilag, et al., 2023).

This collaborative ethos was found to be instrumental in promoting a culture of shared responsibility and fostering a collective sense of purpose, thereby enhancing the organization's ability to adapt and respond effectively to crisis-induced challenges. Furthermore, the literature highlighted the role of adaptive leadership in encouraging innovative responses to crises. Adaptive leaders were found to prioritize experimentation, encourage creative thinking, and embrace calculated risk-taking as essential components of effective crisis management. By fostering a culture of innovation and experimentation, adaptive leaders empower their teams to explore novel approaches and alternative solutions, thereby enhancing the organization's capacity to proactively address emerging challenges and capitalize on potential opportunities amid crises. The synthesis of literature findings underscores the critical role of adaptive leadership behaviors in promoting organizational resilience and effective crisis management. The promotion of adaptability, collaborative problem-solving, and a culture of innovation were identified as key components of effective adaptive leadership. These findings align with the notion that adaptive leaders play a crucial role in fostering organizational agility, facilitating timely decision-making, and enabling proactive responses to complex and unpredictable crises.

Building Emotional Intelligence (EI) in Crisis Leadership

Various disaster incidents have indicated for effective system to handle disaster situations. A greater task is done efficiently mostly by the leaders who are involved in the crisis intervention process. This paper emphasizes the need for emotional intelligence training for the leaders who lead crisis intervention teams. Interpersonal skills and relationship skills are listed in the top 10 training priorities. Emotional Intelligence (EI) is prioritized in the top four self-development criteria for all supervisory personnel. Interestingly, EI competency has been an important training aspect for all the human resources at the workplace.

Over the history of Psychology, there have been varying degrees of interest in human emotions. The sig-

nificance of emotions in human behavior, however, has seen a resurgence over the past few decades, including new theories about how a person's emotional abilities can affect their success in the countless aspects of social interaction, including their ability to lead and influence others. Goleman (1998) indicates that EI simply refers to "... how leaders handle themselves and their relationships". Steiner's (1997) definition points to three major areas of EI, summarized as one's ability to understand their emotions, to empathize with the emotions of others, and to express emotion productively. It is notable from the number of references available that human emotion is gaining notoriety, and that EI does not appear to be a fleeting phenomenon. Goleman et al. (2002) suggest that being intelligent about emotions will drive the development of a resonant style of leadership. This resonant style is necessary for cultivating environments of trust, thereby enhancing a leader's ability to inspire others toward a common vision. This includes the ability to consciously apply EI competencies to specific circumstances as a means of better personnel management and leadership. Bar-on and Handley reinforce this position by providing substantial supportive research regarding EI and its use as a predictor of effective leadership performance. Weisinger (1998) also finds that EI is a major determinant of workplace success. He discusses the implications of EI on job stress, creativity, adaptation, and fulfillment, and suggests that a leader's ability to reinforce such attributes in the workforce can serve to bolster company performance. This paper further suggests that EI assessment tools have potential use for the development of related performance standards if applied to a cross-section of supervisory personnel within our discipline. (Rak.K,2020)

Decision-Making Under Pressure

Leaders often find themselves in high-pressure situations where effective decision-making is crucial. The ability to stay calm under stress is essential; it not only aids in clear thinking but also instills confidence in the team. Gathering relevant information quickly is vital, as understanding the situation thoroughly allows leaders to make informed choices. Involving the team can enhance the decision-making process. By leveraging the diverse skills and insights of team members, leaders can come up with more creative and innovative solutions. However, once options are considered, it's important to be decisive. Acting swiftly can prevent the situation from deteriorating further.

Trusting one's instincts also plays a significant role. While data and analysis are critical, intuition developed from experience can guide leaders in moments when time is of the essence. After making a decision, clear communication is necessary to ensure the team understands the rationale behind it, fostering alignment and maintaining morale. Finally, reflecting on the decision-making process after the crisis is important. Reviewing what worked and what didn't can provide valuable lessons that improve future responses. By applying these principles, leaders can navigate pressure effectively and emerge stronger.

4. Examples of Resilient Leaders in Crisis

Crises and tragedies befall individuals, teams, organizations, or communities call for leadership that builds resilience in the face of danger. The COVID-19 pandemic, full of both known and unknown unknowns, is no exception, and variable national responses to it epitomize the importance of resilient leadership. In such situations, there is always the expectation that 'something has to be said' in response to commentators and authorities calling for a clear unambiguous direction (in politics, in business, and communities) and that it is best said by 'the leader'. Saying something and dealing with reality unraveling amid uncertainty and ambiguity can lead to paradoxical situations. In the words of Deloitte Global CEO Punit Renjen, COVID-19 has challenged leaders with 'fixing the plane while it flies'. For passengers to remain calm

while doing so requires the tension-laden goal of ‘building recovery on a foundation of trust’. The balance between saying something reassuring and responding to something threatening in the process is difficult to weigh. While to lead means to guide, to resile means to respond or be guided by circumstances through a process of adaptation and growth within a risky environment. In this commentary, we discuss resilient leadership as a paradox work, i.e., guiding while being guided by contingencies. (Giustiniano, Clegg, Cunha, & Rego, 2018)

During the COVID-19 pandemic, several leaders and countries demonstrated remarkable resilience through their responses to the crisis. One prominent example is New Zealand under Prime Minister Jacinda Ardern. As the pandemic emerged, Ardern took decisive action by implementing a strict nationwide lockdown in March 2020, prioritizing the elimination of the virus rather than merely managing it. Her communication style was characterized by empathy and transparency, with regular updates that kept the public informed and engaged. This proactive approach, combined with robust testing and contact tracing, resulted in low infection rates and minimal fatalities, showcasing the effectiveness of clear leadership in a crisis.

Similarly, Taiwan's President Tsai Ing-wen faced the pandemic with a strong early response. Positioned close to the initial outbreak in China, Taiwan's government acted swiftly by instituting health screenings at airports and enforcing border controls as early as January 2020. Tsai's administration utilized technology for effective contact tracing and launched a comprehensive public health campaign that emphasized mask-wearing. The collaborative spirit fostered within the community and clear messaging contributed to Taiwan's success in keeping case numbers low, illustrating how timely action and public engagement can lead to positive outcomes.

In Germany, Chancellor Angela Merkel's leadership proved crucial during the pandemic. Drawing on her scientific background, Merkel emphasized a data-driven approach to public health. Her government implemented widespread testing and contact tracing, complemented by clear communication that reassured the public. The federal structure of Germany allowed for localized adaptations while maintaining a cohesive national strategy. As a result, Germany experienced lower mortality rates compared to many other European nations, demonstrating the power of a scientific and transparent approach to crisis management.

5. Leveraging Technology and Data for Crisis Management

The Role of Artificial Intelligence (AI) in Crisis Management

The research paper explores the ability of artificial intelligence (AI) to develop a response to crises. The research study focuses on the applications and solutions of artificial intelligence provided in response to crises. The use of AI satellites, AI-powered drones, and AI-rescue robots is highlighted. AI satellites that can be useful to identify severe zones and AI-powered drones that can help cover a large area, provide food and medicines, detect aromas, and allocate people are discussed in the proposed solution. Another efficient solution is AI rescue robots equipped with cameras, sensors, and sonar to help rescue people, avoid obstacles, and coordinate with rescue teams to perform their tasks efficiently. Overall, the research paper also acknowledges the hurdles and effectively solves the problem. The solutions provided are promising opportunities that can help implement quick and effective decision-making, responses, and the ability to handle complex situations.

Data-Driven Decision-Making Tools for Real-Time Insights

The digital world has a wealth of data, such as Internet of Things (IoT) data, business data, health data,

mobile data, urban data, security data, and many more, in the current age of the Fourth Industrial Revolution (Industry 4.0 or 4IR). Extracting knowledge or useful insights from these data can be used for smart decision-making in various application domains. In the area of data science, advanced analytics methods including machine learning modeling can provide actionable insights or deeper knowledge about data, which makes the computing process automatic and smart. In this paper, we present a comprehensive view of “Data Science” including various types of advanced analytics methods that can be applied to enhance the intelligence and capabilities of an application through smart decision-making in different scenarios. We also discuss and summarize ten potential real-world application domains including business, healthcare, cybersecurity, urban and rural data science, and so on by taking into account data-driven smart computing and decision-making. Based on this, we finally highlight the challenges and potential research directions within the scope of our study. Overall, this paper aims to serve as a reference point on data science and advanced analytics for researchers and decision-makers as well as application developers, particularly from the data-driven solution point of view for real-world problems. (Sarker.H, 2021)

Data-driven decision-making tools are pivotal for organizations looking to gain real-time insights and navigate complex challenges effectively. These tools harness various technologies, including data analytics, machine learning, and visualization techniques, to support informed decision-making.

One of the core components of data-driven decision-making is business intelligence (BI) platforms. Tools like Tableau, Power BI, and Looker allow organizations to visualize and analyze data from diverse sources. By providing interactive dashboards, these platforms enable decision-makers to track key performance indicators (KPIs) and identify trends quickly. The ability to aggregate data helps organizations make informed choices based on comprehensive insights.

Predictive analytics tools also play a significant role in this landscape. By utilizing historical data and machine learning algorithms, tools such as SAS and IBM Watson can forecast future trends and behaviors. These insights allow organizations to proactively adjust their strategies, whether that involves anticipating customer needs or identifying potential risks. Real-time data streaming solutions, like Apache Kafka and AWS Kinesis, facilitate the processing of live data streams. This capability is invaluable in sectors such as finance and logistics, where immediate decision-making is essential. By ingesting and analyzing data as it flows in, organizations can gain instantaneous insights that guide operational responses.

Geospatial analytics tools, such as ArcGIS, further enhance decision-making by enabling the analysis of location-based data. By integrating geographical information with other datasets, organizations can uncover patterns and trends specific to certain regions. This approach is particularly useful in urban planning, disaster response, and retail, where location can significantly influence strategic choices. Collaboration also plays a crucial role in effective decision-making. Platforms like Slack and Microsoft Teams not only facilitate communication among teams but can also integrate data analytics capabilities. This integration allows team members to share relevant insights in real time, enhancing the collaborative decision-making process.

Artificial intelligence and machine learning are transformative in automating data analysis. Tools like TensorFlow and Azure Machine Learning enable organizations to build models that can detect trends and anomalies in real-time data. This automation speeds up decision-making and increases accuracy, allowing organizations to respond swiftly to emerging situations.

Building Digital Resilience for Future Crises

Digital resilience (DR)—the capacity of individuals and organizations to anticipate, absorb, and adapt to

exogenous shocks through the design, deployment, and use of information systems (IS) (adapted from Boh et al., 2023)—is an imperative for the global community today. Numerous recent events, from floods and droughts to geopolitical unrest a pandemics, have emphasized our increasing dependence on IS for response, recovery, and reconstruction in the face of exogenous shocks. DR encapsulates our collective capacity to navigate increasing uncertainty and escalating environmental, technological, economic, and geopolitical challenges.

This article elucidates the process of building DR, drawing on our first-hand experience of designing an IS solution during the COVID-19 pandemic. Since early 2020, the pandemic has delivered a shock to the healthcare system. Con-fronted with managing a novel, highly contagious, and life-threatening disease, healthcare professionals quickly became overwhelmed as the whole world transitioned into an unprecedented crisis state.¹ Two authors of this article, who are frontline clinicians battling the pandemic, have personally experienced these challenges. There was intense pressure on healthcare professionals to treat a vast number of hospitalized COVID-19 patients while simultaneously monitoring symptoms for an even larger group of individuals under home isolation with suspected infections.

A pressing need emerged for an IS solution that could streamline the time-consuming manual tasks involved in symptom monitoring, enhancing the reliability of the monitoring process to better contain the spread of the novel coronavirus. However, designing a new IS solution in a resource-constrained, time-sensitive crisis context, while ensuring its feasibility and practicality, is a formidable task. For this project, we needed active involvement from diverse stakeholders, including healthcare professionals (i.e., the problem owners), healthcare and system design experts (i.e., subject matter experts and solution designers), as well as end users (i.e., those evaluating the solution's fitness for purpose) to design an effective solution. Furthermore, we had to quickly foster productive collaboration among these stakeholders amidst significant uncertainties, without the guidance of the stage-gate processes typically employed in more stable circumstances.

6. Developing Resilient Leaders: Skills and Training

Essential Skills for Resilient Leadership

To inform the development of the scale, it is essential to delve into the key elements of crisis management skills identified in the literature. Communication strategies, decision-making processes, collaboration with stakeholders, and the execution of crisis response plans emerge as critical components (Marzano et al., 2005; Mitchell, 2018). Effective communication, both internal and external, is highlighted as a cornerstone of successful crisis management in educational institutions. Decision-making under pressure requires administrators to demonstrate sound judgment and the ability to prioritize actions that align with the overarching goals of school improvement. While generic crisis management scales exist, they often lack the specificity needed for educational contexts. A review of existing scales reveals that they may not adequately capture the unique challenges faced by school administrators and nuances associated with school improvement (Lisao, et al., 2023). Therefore, there is a pressing need to develop a scale that aligns with the intricacies of crisis management education and directly contributes to the enhancement of school improvement efforts. Developing a scale tailored to crisis management skills in school administrators can have far-reaching implications.

Firstly, it provides a standardized tool for assessing and benchmarking the crisis management capabilities of educational leaders. This n informs hiring practices, professional development initiatives, and the valuation of leadership effectiveness (Malbas, et al., 2023). Additionally, the scale can serve as a

foundation for targeted training programs, enabling administrators to proactively develop and refine their crisis management skills in alignment with the goals of school improvement (McLeod & Dulsky, 2021). The literature review highlights the critical intersection of crisis management skills and school improvement, emphasizing the central role of administrators in navigating challenges. While existing research underscores the importance of effective crisis management, the absence of a tailored scale for assessing administrators' skills within the context of school improvement represents a notable gap. The development of such a scale promises to contribute significantly to both research and practice, offering a valuable instrument for enhancing the resilience and adaptability of educational institutions in the face of crises.

Training Programs and Resources for Leadership Resilience

Leadership development constitutes a scholarly paradox. Although it is a very widespread practice, in which many academics also participate (Sinclair, 2011), there is a need for a better understanding of the effects and functions of leadership development (Collins and Holton, 2004). The number of published evaluation studies is limited, especially studies concerning programs focusing on generic leadership skills as opposed to programs focusing on specific skills (Blass and Ferris, 2007).

Furthermore, while it is relatively clear that leadership development programs have effects (Avolio et al., 2009), the relevance of these effects for everyday organizational practice is less clear. This is not least true in the face of current transformations of the workplace, including more flexible roles, increasing rates of change and innovation, and generally increasing complexity. New organizational forms, increased turbulence, and new demands tend to leave leaders exposed and vulnerable (Holden and Roberts, 2004; McCann et al., 2010; Worrall and Cooper, 2004). Leaders at all levels of organizations are facing an increasing variety of demands emanating from exposure to fluid organizational environments and the associated complex and changeable role expectations (Bernin, 2002).

These new organizational contexts place new burdens on leaders and subordinates. Leaders need to constantly orient themselves in the organizational landscape and cope with the various emotional and stress-related pressures of diminishing stability and control. In such situations, generic capacities and skills are reasonably more relevant than more specific skills because tasks and contexts quickly vary, making learning and adaptation more important than having a range of specific skills. The evaluation of leadership development programs should therefore benefit from the inclusion of outcome criteria that are related to self-efficacy and generic leadership skills, including general capacity to perform in a leadership role as well as interpersonal and social aspects.

Furthermore, increased exposure to organizational turbulence places greater demands on leaders' health and well-being. Due to greater demands on individuals, individual resources become more important for coping with challenges, including health and well-being as sources of resilience. It is this situation that this study aims to address. We contribute to the literature on leadership development by presenting a quasi-experimental evaluation study focusing on both general leadership skills and health effects. Our study demonstrates that leadership self-efficacy improved, while the effects on health and well-being were less clear.

These results are discussed in the existing literature on the evaluation of leadership programs and in terms of the potential for improving leaders' leadership skills and health. The paper is structured as follows. First, we identify a relevant theory regarding the effects and evaluation of leadership development. Following this, we identify several indicators of general leadership skills and managers' health and well-being to use in our empirical study. We then describe the methods used for collecting and analyzing the

data. The next section presents the main results, followed by a discussion of these results about the existing theory. Finally, a concluding section summarizes our main contributions.

7. Future Outlook: Resilient Leadership in an Uncertain World

7.1 Anticipated Challenges for Future Leaders

Future leaders will face many challenges as the world changes rapidly. One big issue is technology. As AI and automation become more common, leaders will need to adapt to new tools while also dealing with concerns about job losses. Remote work is another challenge. With more people working from home, leaders will need to find ways to keep teams connected and maintain a strong company culture, even when everyone is far apart.

Diversity and inclusion will be important, too. Leaders must create workplaces that are fair and welcoming to everyone, helping to eliminate biases and encouraging diverse ideas.

Sustainability is becoming a priority as well. Leaders will need to think about how their businesses impact the environment and implement practices that help fight climate change. In our globalized world, leaders will have to navigate international issues, like trade conflicts and cultural differences, to make informed decisions. Mental health will also be a focus. Leaders need to create supportive environments that help employees manage stress and avoid burnout.

As change happens quickly, leaders must be flexible and ready to guide their teams through uncertainty. They will also need to lead with ethics, making decisions that are transparent and building trust. Addressing skills gaps is another challenge. Leaders should invest in training and development so their teams are equipped for the future. Finally, leaders must engage with different stakeholders, balancing the needs of employees, customers, and the community while staying true to their organization's goals. Overall, future leaders will need to be adaptable, empathetic, and strategic to tackle these challenges effectively.

8. Development of Leadership

Every person's development begins with family. Each person experiences the traumas associated with separating from his or her parents, as well as the pain that follows such a wrench. In the same vein, all individuals face the difficulties of achieving self-regulation and self-control. But for some, perhaps a majority, the fortunes of childhood provide adequate gratifications and sufficient opportunities to find substitutes for rewards no longer available. Such individuals make moderate identifications with parents and find a harmony between what they expect and what they can realize from life. But suppose the pains of separation are amplified by a combination of parental demands and individual needs to the degree that a sense of isolation, of being special, or of wariness disrupts the bonds that attach children to parents and other authority figures? Given a special aptitude under such conditions, the person becomes deeply involved in his or her inner world at the expense of interest in the outer world. For such a person, self-esteem no longer depends solely on positive attachments and real rewards. A form of self-reliance takes hold along with expectations of performance and achievement, and perhaps even the desire to do great work. Such self-perceptions can come to nothing if the individual's talents are negligible. Even with strong talents, there are no guarantees that achievement will follow, let alone that the result will be for good rather than evil. Other factors enter into development as well. For one, leaders are like artists and other gifted people who often struggle with neuroses; their ability to function varies considerably even over the short run, and some potential leaders lose the struggle altogether. Also, beyond early childhood, the

development patterns that affect managers and leaders involve the selective influence of particular people. Managerial personalities form moderate and widely distributed attachments. Leaders, on the other hand, establish, and also break off, intensive one-to-one relationships. It is a common observation that people with great talents are often indifferent students. No one, for example, could have predicted Einstein's great achievements based on his mediocre record in school. The reason for mediocrity is not the absence of ability. It may result, instead, from self-absorption and the inability to pay attention to the ordinary tasks at hand. The only sure way an individual can interrupt reverie-like preoccupation and self-absorption is to form a deep attachment to a great teacher or other person who understands and can communicate with the gifted individual. Whether gifted individuals find what they need in one-to-one relationships depends on the availability of teachers, possibly parental surrogates, whose strengths lie in cultivating talent. Fortunately, when generations meet and self-selections occur, we learn more about how to develop leaders and how talented people of different generations influence each other.

9. Self-leadership

A stunning example of resilience is Nelson Mandela. He was sent to prison as a young firebrand who believed in taking up violent means of resistance when the justice system failed. Twenty-seven years later, he came out advocating peace and reconciliation. During his long confinement, Mandela mastered the art of self-leadership. He took great inspiration from the poem "Invictus," written by William Ernest Henley, which ends with the verse "I am the master of my fate/I am the captain of my soul." It is often forgotten that one must learn to lead oneself before being able to lead others successfully. Before take-off, flight attendants instruct that, in the event of a drop in the cabin's air pressure, parents should put on their oxygen masks before helping children with theirs. Similarly, self-leadership provides the backbone for the effective leadership of groups. A high-performing leader needs to be physically, mentally, and emotionally functional— as well as resilient— to inspire and guide others to achieve ambitious goals over the long term. The journey to inspiring others starts with "How do I inspire myself?"

Conclusion

In conclusion, resilient leadership emerges as a fundamental component for organizations facing economic and operational challenges in an increasingly volatile world. Leaders who embody resilience not only navigate crises effectively but also inspire their teams to adapt and thrive amidst adversity. This paper has demonstrated that fostering a culture of resilience through servant leadership can significantly enhance an organization's capacity to respond to disruptions. As the global landscape continues to evolve with uncertainties, organizations must invest in developing resilient leaders who can guide their teams through turbulent times. By prioritizing adaptability and emotional intelligence, organizations can build a robust framework that not only withstands crises but also leverages them as opportunities for growth and innovation. Ultimately, the ability to cultivate resilience within leadership will be pivotal in ensuring long-term organizational survival and success.

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