Walden University

College of Psychology and Community Services

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Leigh E. Richardson

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Walden University
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Abstract

The Experience of Organizational Leaders with Decision-Making in a Crisis

by

Leigh E. Richardson

MS, University of North Texas, 2013

MBA, University of New Haven, 1988

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Psychology

Self-Designed

Walden University

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Abstract

In the contemporary business environment, characterized by volatility, uncertainty, complexity, and ambiguity, a leader's crisis decision-making process emerged as a critical concern. Although the significance is acknowledged, a need emerged for a greater understanding to bridge the gap in leaders' lived experiences during the crisis decision-making process. The study aimed to deeply understand organizational leaders' decision-making perceptions and the impact on leaders' physical, emotional, and mental health by integrating the vital concepts of agility, critical thinking, and situational awareness, which are essential for effective adaptation in crisis. The research method used the biopsychosocial model to understand the mental and emotional aspects of crisis decision-making and how these decisions affected the well-being of both leaders and the organization. Interpretative phenomenological analysis was used to deeply understand how 19 organizational leaders perceive, interpret, and navigate their decision-making processes during a crisis. Data collection involved semi-structured interviews, with thematic analysis used to recognize the individualized nature of leadership decision-making experiences. The study offers a comprehensive view of crisis decision-making and prepares leaders to make better decisions. Three recurring themes evolved: teamwork, decision-making constraints, and communication. Three emerging themes developed: mental, emotional, and physical health. The study enhanced understanding of leaders' experiences in crisis, providing insights into more inclusive, resilient decision-making processes that benefit organizational performance and employee well-being while fostering positive social change.

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Acknowledgments

I want to acknowledge my family for all the support, encouragement, and pride they continuously expressed to me during the dissertation process. The level of belief and encouragement was never-ending and picked me up when I struggled. They were the foundation of my support system. The support system included team members who carried out the day-to-day operations of the Brain Performance Center, allowing me to designate time each week for the PhD process with confidence and assurance. Most importantly, those who would respond with honest information and challenge me to take it up a level inspired me to go above and beyond with my effort and not settle but aim to do my best.

My chair, Dr. Jay Greiner, understood my passion for brain health, was determined to help me work this into my research design, and continually encouraged me to move forward. His suggestion of the Biopsychosocial model as a framework for the study was influential. Dr. Carl Valdez, the committee member, responded quickly and offered comments that added value. Dr. Susana Verdinelli, in the role of University Reviewer, added another quality dimension to the feedback process.

Most importantly, I want to acknowledge two extraordinary women who were a big part of my life. My mom, Dorothy, taught me always to be true to myself and believe in myself. My other mom, Rosa Nell, taught me that everyone seems normal until you get to know them, and no one is. Both life lessons have served me well.

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Chapter 1: Introduction to the Study

Organizations have learned that they must rethink and reinvent themselves after the COVID-19 crisis to thrive within the new norm, the world of volatility, uncertainty, complexity, and ambiguity (VUCA). VUCA is a framework utilized in this study to understand the crisis decision-making process. The global workplace during the COVID-19 pandemic was affected by chronic stress, financial insecurity, and collective grief (Moss, 2023). Individuals reach their lowest point when stretched beyond their limits, impacting their physical and mental well-being. Some businesses were forced to close, and others reduced operating hours.

Total civilian employment measured by the Current Population Survey fell by 21 million from the fourth quarter of 2019 to the second quarter of 2020, resulting in a renegotiation of the social work contract (Sean et al., 2021). A Pew Research study found that 57% of workers quit in 2021 (Parker & Horowitz, 2022). Becoming an influential leader in the VUCA world required situational awareness and agility that mandated organizations to make significant shifts for sustainability and a competitive edge.

The rate of change is constant, with major and minor changes and positive and negative changes that happen so fast that it is challenging to associate cause and effect (Sinha & Sinha, 2020). The role that leadership plays in surviving today's world has changed dramatically. Volatility changes the business, economic, and social environment. A highly volatile environment needs a strategic approach focusing on learning, agility, and experimentation (Kraaijenbrink, 2019). Uncertainty occurs in unstable environments with too much information, misinformation, or a lack of information about a crisis

(Bodenhausen & Peery, 2009). Complexity refers to the nonlinear associations between the interdependent system dimensions and the interactions with the variables (Schick et al., 2017). In today's world, clarity is often hard to come by, and the actual message can become ambiguous amidst overwhelming information. Organizational leaders in the 21st century must accept the chaos, adapt to uncertainties, and navigate ambiguity.

Ibrahim and Daniel (2019) defined leadership as one group member modifying the motivation or competence of others. Their study found that an individual will support an organization if they believe that personal objectives and goals can be met. Ali and Anwar (2021) reported that employees are more enthusiastic about leaders who have charisma in times of crisis. Multiple theories and leadership styles were examined to identify a universally applicable leadership style for decision-making during crises across different industries and business sectors worldwide. Decision-making criticality refers to the urgency of a decision in each context. Cognitive abilities, emotional states, values, beliefs, and the external environment influence decision-making.

The biopsychosocial (BPS) model provided the second conceptual framework. In 1977, George Engel developed the model to integrate physical health with psychological and social factors. Organizations can improve their employees' well-being by adopting a BPS approach to human performance. The World Health Organization (WHO, 2022a) reported that almost 60% of the world's population warrants a safe and healthy environment that supports good mental health. Leaders and their employees need to feel psychological safety, increasing their confidence and connection to purpose. The WHO referred to mental health risks as psychosocial, including excessive workloads, work

pace, unclear jobs, and job insecurity. Over 50% of the global workforce works in the informal economy, where unsafe working environments pose a risk to mental, emotional, and physical health. According to the WHO, the informal economy refers to economic activities that operate outside official government regulation, taxation, and monitoring. The informal economy is characterized by its lack of legal protection, lack of formal contracts or employment rights, and operation based on informal agreements and networks.

This study contributes to a broader understanding of the lived experience of organizational leaders in the crisis decision-making process, considering the psychological and social factors associated with a VUCA environment. This chapter includes the background, problem statement, purpose statement, research questions, conceptual framework, nature of the study, definitions, assumptions, scope and delimitation, limitations, and significance sections of the study.

Background of the Study

The study's focus was on how organizational leaders experience VUCA and the BPS model in the crisis decision-making process. All people face instability, uncertainty, complexity, and ambiguity in their lives, but people have not collectively done so as a global population for an extended period since the major world wars. COVID-19 crossed cultural boundaries and impacted religious beliefs with life-or-death consequences associated with the decisions people made for themselves. During the COVID-19 pandemic, leaders made decisions that went beyond the usual scope of organizational

interests, taking extraordinary measures because the spread of the illness directly threatened the health and lives of employees and their families.

The healthcare and power industries are prime illustrations of how the VUCA environment influenced crisis decision-making, critical thinking, employee engagement and retention, and overall human performance during turmoil. In these sectors, leaders had to navigate rapidly changing conditions, making decisions amidst significant uncertainty about the spread of illnesses or disruptions in power supply. A high level of critical thinking was required to anticipate multiple potential outcomes and prepare for them accordingly. The VUCA environment was influenced by different leadership styles, with transformational, transactional, and situational awareness being explored more in depth.

The concepts applied in this study revolve around the lived experiences of organizational leaders in a VUCA business environment with critical thinking, situational awareness, and agility. Crisis decisions are complex, including the need to quickly assess the nature of the crisis, its scope, potential risks, available resources, and the potential impact on stakeholders. Complexity is more a way of thinking than applying a linear model (Snowden & Boone, 2007). When data is ambiguous, the situation becomes more complex, presenting an obstacle, and leaders can go into analysis paralysis where overthinking or excessive analysis prevents decision-making or action. Organizational leaders must be prepared to handle different kinds of crises, pandemics, natural disasters, and situational emergencies that require critical thinking skills and agility. The leadership rules that worked in the past cannot be applied to the present (Sinha & Sinha, 2020).

Problem Statement

As of today's writing, there is yet to be a clear path for future leaders to follow in a VUCA environment. From a business perspective, there are risks associated with VUCA (Sinha & Sinha, 2020). In a volatile situation, the information for decision-making needs to be updated from moment to moment. Complete information creates more certainty, and leaders' resort to what they know worked in the past. Numerous moving pieces are involved with complexity that either causes analysis paralysis to set in or leads to short-term fixes and quick wins. Cause and effect confusion feeds the ambiguity, and it is not easy to judge the significance of the events or if they need to be interpreted.

Business leaders are addressing the lingering effects of COVID-19, economic volatility, and political instability while trying to build resilience and address employees' declining mental health (Guggenberger et al., 2023). How people do business in 2024 and the future will continue to evolve, and emerging trends will significantly impact the day-to-day business world, increasing complexity in the landscape (Marr, 2022). Digital transformation will bring new solutions for augmented working and business decision-making, but the challenge is integrating the new technology throughout the processes and in every operation (Tratkowska, 2019). Organizational leaders must be prepared to handle different kinds of crises, pandemics, natural disasters, and situational emergencies. Situational emergencies are unexpected and often critical events or circumstances that require immediate attention and action due to their potential to cause harm or disruption that are short-term in duration. Historically, ethical leadership has been considered a one-

time event, usually in the onboarding process, and while that is educational, it does not develop the understanding of making moral decisions (Smith & Kouchaki, 2021). Leaders must be flexible and agile enough to continuously monitor the situation and change directions to meet employees', stakeholders', and external needs.

The WHO recognizes the urgent need to transform mental health and health care while encouraging decision-makers and advocates to commit to creating change around mental health care. In 2019, nearly a billion people were living with mental disorders, and suicide accounted for more than one in 100 deaths, with 58% of the suicides occurring before age 50. People with mental health conditions are discriminated against, and human rights violations occur frequently (WHO, 2022b).

The WHO calls on all stakeholders to be aware that when they look at conditions such as depression and anxiety, there is a 5:1 benefit–cost ratio. The WHO emphasizes the importance of recognizing that conditions like depression and anxiety carry a significant societal and economic burden. When evaluating these mental health disorders, it is crucial to consider a 5:1 benefit–cost ratio, indicating that for every dollar invested in mental health prevention, treatment, and support, there can be a potential $5 return regarding improved well-being, increased productivity, and reduced healthcare costs. The ratio points out the substantial advantages of addressing mental health issues comprehensively, as it not only alleviates individual suffering but also generates substantial positive outcomes for societies, economies, and overall public health. The WHO encourages all stakeholders, including governments, healthcare providers, and communities, to prioritize mental health initiatives to harness these substantial benefits.

Purpose of the Study

The purpose of this interpretative phenomenological analysis (IPA) study was to understand the lived experiences of organizational leaders with crisis decision-making and organizational performance in a VUCA environment. The organizational leadership crisis has been studied, but there is a gap concerning the impact of decision-making in a crisis on physical and mental health. The BPS model has yet to be investigated. Clarke et al. (2019) viewed critical thinking as a subset of decision-making. Moore (2022) saw the value that critical thinking adds to the decision-making process by reducing standard errors or biases, giving purpose to integrating decision-making with critical thinking. Situational awareness is essential in VUCA decision-making (Marcus et al., 2020). A crisis is dynamic, and the study research highlights agility's role in crisis decision-making. Applying critical thinking, situational awareness, and agility contributes new knowledge to the decision-making process and the psychological and social constructs.

Research Questions

The research encompassed three distinct yet interconnected questions. The first research question, What are the lived experiences of organizational leaders utilizing critical thinking with crisis decision-making in a VUCA business environment involved the lived experiences of organizational leaders who employ critical thinking in their decision-making processes during crisis (Ramakrishnan, 2021). Critical thinking as a subset of decision-making plays a pivotal role in navigating the complexities of a VUCA environment. Ramakrishnan (2021) recognized the importance of solid relationships in the VUCA environment, which causes confusion and chaos for leaders.

The second research question—What are the lived experiences of organizational leaders applying situational awareness with crisis decision-making in a VUCA business environment delved into the real-life experiences of organizational leaders in terms of applying situational awareness when making decisions during crisis in a VUCA business environment. Ramakrishnan (2021) emphasized the need for leaders in VUCA settings to cultivate agile leadership and resilient learning, making situational awareness a crucial aspect of their decision-making toolkit.

The third research question—What are the lived experiences of organizational leaders that relate to agility with crisis decision-making in a VUCA business environment was developed to understand the lived experiences of organizational leaders regarding their agility in making decisions during crisis within a VUCA business environment. Ramakrishnan (2021) stated that for leaders to excel in a VUCA environment, leaders need agile leadership and resilient learning.

Conceptual Framework

The study was rooted in the VUCA business environment, where organizational leaders must make rapid and frequent decisions amidst constantly shifting circumstances, often relying on imperfect or insufficient data. VUCA is an acronym, an approach to thinking and executing strategy developed by two university professors, Warren Bennis and Burt Nanus, in their book *Leaders: Strategies for Taking Charge*. This conceptual framework was used in the 1990s military leadership crisis and was applied to the Army War College Study project, first published in 1992, with the ideas being cited from Bennis and Nanus. However, the exact date of incorporation of the acronym "VUCA"

has not been determined. VUCA became a managerial acronym applied to the rapidly changing business environment to develop strategies to overcome the climate (Sinha & Sinha, 2020). Spain and Woodruff (2022) reported that the "Three Horizons Model" helps in gaining perspective and developing a strategy to lean on in a VUCA environment. The first horizon occurs when leaders realize that business as usual is no longer valid. The second horizon affects decision-making; in the third horizon, reality has set in. In Alvin Toffler's 1970 book *Future Shock*, the concept was that change would sweep over human society so quickly that people would be unable to make sense of it. A quote from Toffler: "The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn" (p. xx).

The second conceptual framework was the BPS model, which addresses organizational leaders' challenges in crisis decision-making and how that is influenced by their individual biological, psychological, and social constructs (Engel, 1980). Biological factors pertain to an individual's physiological and genetic aspects of health. For instance, the brain's structure and function are crucial in determining well-being. These factors include genetic predispositions to certain conditions, hormonal imbalances, and the physical health of the body's systems. Such biological components can significantly impact an individual's mental and physical health.

Psychological factors encompass various mental processes and attributes, including emotions, thought patterns, behaviors, and personality traits. How an individual perceives, interprets, and reacts to different situations is influenced mainly by their psychological makeup. Emotional well-being, stress levels, coping mechanisms, and

personality characteristics such as optimism or resilience are key psychological

components influencing an individual's overall health.

Social factors are external environmental aspects that impact an individual's

health. These include the quality of relationships and interactions within the workplace,

the availability and quality of social support networks, socioeconomic status, and the

influence of cultural norms and values. The workplace environment can significantly

affect mental health, offering either a source of stress or support. Social support and

interaction provide emotional comfort and practical assistance, buffering against health

problems. Socioeconomic status affects access to healthcare, nutrition, and leisure

activities, directly impacting health. Cultural norms and values shape attitudes towards

health, illness, and healthcare-seeking behavior, further influencing well-being.

Together, these factors illustrate the breadth of influences on well-being,

demonstrating that health is not solely the absence of disease but a complete physical,

mental, and social well-being. Understanding these interactions is crucial for developing

effective strategies to improve health outcomes and enhance quality of life. Suls and

Rothman (2004) recognized the potential for the BPS model in health psychology with

the perspective that biological, psychological, and social processes are naturally involved

in physical health and illness. Frazier (2020) reported that the BPS model is more

relevant than ever, especially as social genomics, psychoneuroimmunology, health

disparities, and global health become more important.

Nature of the Study

The nature of the study was qualitative to provide a comprehensive understanding of organizational leaders' lived experiences with crisis decision-making in a VUCA business environment. Three subsets were reviewed in the study to understand the decision-making process fully. Critical thinking skills, situational awareness, and agility are required to evaluate the environment, identify the problem, and adapt to the situation in which the decision is made. The complexity of VUCA is best captured in a qualitative study that uses the novel approach of examining the impact of VUCA as a theoretical framework and the effect it has on human lives physically, psychologically, and socially. To understand this phenomenon, I examined the workplace as a significant stressor, which has repercussions on the social milieu and the physical and mental well-being of employees, especially in a VUCA environment. Mental health difficulties linked to the workplace encompass a range of issues, including clinical mental disorders, substance use disorders, as well as other emotional responses such as stress, grief, sadness, and anxiety.

IPA was the research design selected for the study because it explores how individuals understand and interpret their lived experiences (Pietkiewicz & Smith, 2014). The IPA approach offers insights into how a person in a specific context makes sense of a given situation in their personal and social world. IPA helped me delve deeply into individuals' subjective experiences and examine how they interpreted and made sense of these experiences. The study examined the real-life experiences of 19 leaders from diverse business sectors. I concentrated on their encounters with decision-making during

crisis and analyzed their application of critical thinking, situational awareness, and agility. This examination offered the most comprehensive opportunity to gain insights into the inner thoughts and reflections of individuals' lived experiences. The interview process enabled the participants to freely express themselves and narrate their stories in their own words and perspectives (Alase, 2017)—a flexible and participant-oriented design allowed for in-depth analysis.

Participants were senior-level organizational directors and independent business owners who had experienced leadership in a VUCA crisis, with a portion having lived through the COVID-19 crisis. The various leaders offered a comparable experience that yielded rich, detailed data (Creswell, 2013). The leaders came from different industries facing different types of crises. The leaders were recruited from a diverse pool of qualified individuals on LinkedIn to foster diversity and inclusion. Swartz et al. (2019) reported that diversity drives excellence and innovation. I followed the recommendations of Smith et al. (2009) regarding the purposive sampling strategy because it offered valuable insights into a specific experience. A snowball strategy could have been employed to expand the pool of study participants by seeking assistance and recommendations from those who had already agreed to participate. However, it was deemed unnecessary because of LinkedIn's ability to provide valuable participants (Alase, 2017). Data storage and security measures were implemented to safeguard the data in a secure location, effectively shielding the data from external threats and ensuring the utmost confidentiality, which was vital to maintaining the integrity and privacy of the data (Rubin & Rubin, 2012).

Definitions

The following terms play a pivotal role in enhancing the comprehensibility of the study on VUCA and the BPS model as managerial concepts applicable to contemporary organizations. It is important to note that these definitions are my interpretations, and I acknowledge that diverse businesses may have distinct interpretations of these terms. I present these definitions to establish a common understanding in pursuing transparent and effective communication.

Ambiguity refers to the haziness of reality and the mixed meanings of conditions (Horney & O'Shea, 2015).

Agility is the capability of organizations to be fast, focused, and flexible due to the alignment of technology, processes, and people to anticipate, monitor, and respond to uncompromising changes in VUCA environments (Horney & O'Shea, 2015).

Biopsychosocial (BPS) model: The biopsychosocial model recognizes that biological, psychological, and social factors influence health and well-being (Engel, 1977).

Clarity: Johansen (2012) defined clarity in VUCA as the ability for leaders to make sense of chaos, comprehend clutter and paradoxes, and envision a future that others cannot yet see.

Complexity refers to the confounding of issues and the chaos surrounding any organization (Horney & O'Shea, 2015).

Crisis is an unexpected event for which there has been no preparation that requires a rapid decision and has the potential to result in major consequences for an organization and its members (Sayegh et al., 2004).

Critical thinking is a reflective and reasoned review focused on deciding what to believe or do, including formulation of questions, development of alternative solutions, and planning (Ennis, 1985).

Decision-making is simply the process of making a choice (*What Is Decision Making?*, 2023).

Employee engagement refers to employees' commitment and motivation towards their work and organization. It is essential for organizational success as engaged employees tend to be more productive, creative, and loyal.

Human performance refers to employees' ability to perform their tasks effectively and efficiently, individually and as part of a team. Various factors influence it, including individual skills and knowledge, team dynamics, and organizational culture.

Leadership crisis refers to an organization lacking effective leadership, leading to poor decision-making, low employee morale, and decreased organizational performance. Organizations need influential leaders who can guide their employees through challenging times and promote a culture of resilience and engagement.

Mental health management refers to the strategies and policies implemented by organizations to promote the mental health and well-being of their employees. It involves creating a supportive work environment, providing resources for employees to manage their mental health, and reducing stigma around mental health issues. Effective mental

health management can help improve employee engagement, reduce absenteeism and turnover, and promote organizational resilience.

Organizational resilience refers to the ability of an organization to adapt and respond effectively to unexpected changes, challenges, or crises. It involves building a culture of resilience, where employees are equipped with the skills, knowledge, and resources to respond to challenges and changes flexibly and innovatively.

Readiness: Burt et al. (2017) defined readiness as an open disposition where people can work effectively with competing narratives, tensions, dilemmas, and differences in VUCA business environments.

Sensemaking: Salicru (2018) defined sensemaking as a core leadership capability for contemporary complex, uncertain, and dynamic environments where leaders use contextual rationality to make sense of increasing turbulence and evolving situations.

Situational awareness: Endsley (1995) defined situational awareness as an individual's perception and comprehension of the environment and their understanding of the situation's meaning and potential future states.

Uncertainty refers to lack of predictability of issues and events (Horney & O'Shea, 2015).

Volatility refers to the nature, speed, volume, magnitude, and dynamics of change, requiring organizations to be adaptable, flexible, and responsive to navigate and thrive effectively amidst the crisis (Horney & O'Shea, 2015).

VUCA: Hall and Rowland (2016) described VUCA as the modern world of work characterized by volatility, uncertainty, complexity, and ambiguity in a business, an environment filled with persistent and unprecedented change.

VUCA-readiness is the ability to anticipate, sense, and respond to competing VUCA threats by using clarity of focus, speed, and flexibility as agility actions for business survival (Horney & O'Shea, 2015).

VUCA world is a phrase that represents a business environment afflicted by significant changes that are volatile, uncertain, complex, and ambiguous, which can be problematic to diagnose clearly and that executives may have challenges in responding to (Bennett & Lemoine, 2014).

Assumptions

The first set of assumptions pertained to how I facilitated the study. The characteristics of qualitative research included conducting the interviews in a natural setting, involving complex reasoning, inductive and deductive, and presenting a complex holistic picture (Marshall & Rossman, 2014). The first consideration entailed that leaders would be interviewed to gather information, and these interviews would take place using Zoom for the interaction. The second consideration entailed utilizing complex reasoning skills in the research process and building the themes from the data organization. The third consideration involved a focus on examining the interactions between factors rather than seeking to establish cause-and-effect relationships. The second set of assumptions pertained to the participants' expectations: that they had been in a leadership role during a

crisis in a VUCA environment, that participants were available for a 60-minute personal interview, and that they were honest and trustworthy during the interviews.

Scope and Delimitations

The study focused on organizational leaders participating in decision-making during a crisis within a VUCA environment, encompassing critical thinking, situational awareness, and agility. Each dimension of VUCA requires a distinct and unique approach (Bennett & Lemoine, 2014). The study encompassed various business sectors, industries, and international businesses. The challenges faced by international businesses have never been more significant, and the global pandemic has generated extraordinary disruptions, offering valuable opportunities for learning and insight (Cavusgil et al., 2021). VUCA and the BPS were used as conceptual frameworks to focus on the workplace environment and how it affected an individual's physical and mental health.

A delimitation of the study was the purposeful exclusion of the organization's employees, whose perspectives could have added value to the research. Their responses to leadership during the crisis could have provided valuable insights into motivation, positive attitudes, and overall organizational performance.

Limitations

The participant population in the study was notably diverse, encompassing individuals from various industries and business sectors. While diversity allowed for a broad perspective, it also posed a limitation regarding the study's generalizability to a specific population. Qualitative research hinges on the interpretation of data, and it is worth noting that different researchers may interpret the same data in distinct ways. There

is inherent subjectivity in interpretation that can introduce personal bias, potentially impacting a study's reliability. Qualitative research demands significant time and resources for conducting in-depth analyses that yield rich and context-specific data with specificity that can make it challenging to replicate a study under similar conditions or with different samples.

Significance of the Study

Bennett and Lemoine (2014) reported that core functions, such as strategic planning, were essential to driving organizational performance and were useless under VUCA conditions. Doheny et al. (2012) contended that VUCA is changing the nature of competition across industries. Ongoing crises, such as COVID-19, climate change, economic instability, and political unrest, have created an increasingly complex and unpredictable environment for organizations worldwide. Leadership is crucial in navigating these challenges and ensuring that organizations, governments, and their people can respond effectively to these crises. Organizational leaders must be prepared to adapt to changing circumstances, make difficult decisions, and communicate effectively with all stakeholders to ensure that everyone is informed and engaged in the response efforts.

Johnson (2018) stated that every society, organization, and community is experiencing rapid change, and many have not prepared for the unexpected. When a catastrophe does occur, leaders are thrown into a reactionary mode and are ill-prepared for an effective response. Johnson's approach to crisis management recognized the role that stress, neuroscience, and emotional intelligence play in crisis decision-making.

The study is significant in that it involved exploring the lived experiences of organizational leaders in a VUCA environment with decision-making in crisis and observing their emotional, mental, and physical health. The WHO has a comprehensive healthcare action plan spanning 2013–2030 that sets out clear steps for regional and national partners to promote mental health and well-being for all. One of the four pillars is more effective leadership and governance for mental health (Ghebreyesus, 2022).

Significance to Practice

McKenzie and Company reported on the state of organizations in 2023 (Guggenberger et al., 2023), finding that organizations would need to rethink and reinvent themselves after the COVID-19 crisis. McKenzie and Company cited network effects; professional networks had shrunk since the pandemic began, and attrition and hiring challenges continued to grow. They aimed to rebuild social capital to enhance corporate performance. In their discussions, they dug into ways organizations can attend to the psychological needs of all employees. McKenzie and Company stressed the importance of returning to a more human-centered approach, which entails cultivating employee engagement and creating a workplace environment that ensures psychological safety for every employee.

COVID-19 redefined the next standard operating model across industries and cultures. People within many organizations are fatigued, grieving, and looking for a model that future-proofs the organization. This study prepares organizational leaders to adapt to current crisis challenges and uncertainty. Ensuring an effective crisis response and recovery process is crucial for maintaining the resilience and stability of

organizations when confronted with unprecedented challenges. Organizations can

optimize their capabilities and knowledge by equipping leaders with the necessary skills

to collaborate efficiently and ensure a coordinated response to continuous crises.

<div align="center">**Significance to Theory**</div>

The study holds considerable significance, establishing a vital linkage between

the BPS model and crisis decision-making within a VUCA environment. It acknowledges

the intricate interactions among biological, psychological, and social factors influencing

crisis decision-making processes. Doing so offers a holistic and comprehensive

understanding of the dynamics when individuals and organizations navigate through

turbulent and unpredictable circumstances. This study is instrumental in shedding light on

how these entities respond, adapt, and ultimately make effective decisions in challenging

and dynamic contexts.

Preparing leadership to adequately address the new challenges and uncertainties

stemming from the current crisis is crucial. These crises necessitate leaders who can

demonstrate agility, adaptability, and practical decision-making abilities even in high-

pressure situations. Drawing upon advancements in leadership theory can offer decision-

makers valuable insights to inform their strategies. Using evidence-based practices,

assimilating historical experiences, and adopting adaptive approaches enhance crisis

response, risk mitigation, and effective leadership in challenging times.

Leadership theory enhancement equips decision-makers with essential tools for

analyzing and comprehending crisis dynamics. These tools enable them to foster

collaboration, develop contingency plans, facilitate transparent communication, nurture

resilience, and make informed decisions under intense conditions. These competencies are vital in navigating the intricacies of contemporary crises and guiding organizations toward resilience and success.

Significance to Social Change

Johnson (2018) reported that every society and community has experienced rapid change. The world today is volatile, uncertain, complex, and ambiguous and requires a leader who can rise to the challenges of crises. The hyper-complexity of a crisis involving fatalities, environmental harm, or an existential threat to an organization necessitates a rapid and immediate response to facilitate improved decision-making.

This study is a foundational framework for instigating and fostering meaningful social change and widespread acceptance within crisis management. Its primary focus lies in enhancing the decision-making abilities of leaders when confronted with crisis and, subsequently, their capacity to serve and empower people and communities, ultimately leading to their sustained well-being and prosperity. By equipping leaders with the knowledge, skills, and adaptive strategies necessary to make effective decisions during a crisis, research contributes to cultivating a more resilient and responsive leadership culture. Such an empowered leadership is better positioned to address immediate crises and proactively anticipate and mitigate risks, safeguarding the welfare of individuals and communities. The study champions the idea that effective crisis decision-making is not just about navigating the storm but about actively contributing to the restoration and growth of communities' post crisis that preserve people's physical safety and security by addressing their psychological and social needs, promoting

recovery, and fostering a sense of unity and empowerment. The framework proposed extends far beyond the immediate context of crisis management; it sets the stage for transformative social change by positioning leaders as catalysts for positive development, community well-being, and resilience. The framework provides a path towards creating a society where crisis response and recovery are reactive and proactive, nurturing sustainable growth and prosperity.

Swartz et al. (2019) reported that engaging widely diverse populations improves the capacity to innovate and define diversity with many components: background, age, sexual orientation, race, ethnicity, culture, religion, skill set, and thinking style. Many barriers prohibit the inclusion of diverse groups. Ross (2014) reported unconscious bias as the automatic impact of stereotypes on people's view of the world that affects their judgment.

The study holds the potential to make significant contributions to the realms of problem-solving and decision-making, particularly by emphasizing a multifaceted and inclusive approach. In today's increasingly diverse and interconnected world, understanding decision-making dynamics across various dimensions is crucial for fostering social change encompassing a broad spectrum of backgrounds, identities, and abilities.

Background, for instance, encompasses many factors, including socioeconomic status, education, and life experiences. By recognizing the influence of one's background on one's decision-making process, the study can shed light on the disparities within

society and provide insights into how equitable decision-making processes can be established to drive social change.

Age is another dimension that plays a vital role in shaping perspectives and approaches to decision-making. Understanding how age-related factors influence choices and problem-solving can help bridge generational gaps and promote intergenerational cooperation in effecting social change.

Sexual orientation, race, ethnicity, culture, and religion introduce complex layers of identity that can significantly impact how individuals perceive and navigate challenges. By exploring the intersections of these identities within the context of decision-making, research can contribute to social change by promoting inclusivity, equity, and cultural sensitivity in problem-solving processes.

An individual's skill set and thinking style are critical in decision-making. Identifying and understanding various cognitive and problem-solving styles can help create more diverse and adaptable decision-making teams, thus facilitating innovative and effective solutions for complex social issues.

A holistic approach to problem-solving and decision-making, considering diverse dimensions such as background, age, sexual orientation, race, ethnicity, culture, religion, skill set, and thinking style, has the potential to foster a transformative social change agenda. By embracing these multifaceted perspectives, the research may enrich the understanding of decision-making and pave the way for more inclusive, equitable, and practical approaches to solving complex societal challenges.

Summary and Transition

The increasingly chaotic global business environments, rapid digital transmission of information, misinformation, and information overload pose new challenges for decision-makers during crises. These factors create a VUCA environment, making it difficult to make effective and sustainable decisions. Incorporating the BPS model into decision-making processes can elevate contemporary business practices by acknowledging the complex interplay of biological, psychological, and social factors, recognizing that organizational leaders' decisions are shaped by rational thought and physiological states, cognitive biases, emotions, social dynamics, and cultural contexts.

By incorporating the BPS perspective, decision-makers can better understand their cognitive and emotional biases, manage stress and emotions, consider diverse perspectives, and engage stakeholders effectively. This framework promotes holistic decision-making, considering the well-being of individuals and the social impact of decisions. It encourages a complete understanding of the complex interplay between individuals, organizations, and society. Integrating BPS with VUCA emphasizes the importance of adaptability, resilience, and agility in responding to crises. The framework encourages decision-makers to proactively address the organization's well-being and mental health, fostering a supportive work environment that enhances productivity, resilience, and decision-making effectiveness.

Chapter 2 includes the literature search strategy, the two conceptual frameworks, and a detailed literature review exploring the parameters of the three research questions and best practices that emerged from the research. Chapter 3 covers the research method

and design, the role of the researcher, the methodology, and trustworthiness issues.

Chapter 4 includes participant demographics, the research setting, data collection, data

analysis, evidence of trustworthiness, and the main themes. Chapter 5 consists of the

interpretation and analysis of the findings, limitations, recommendations, and the social

change conclusion of the study.

Chapter 2: Literature Review

The uncertainty of a chaotic business environment can affect decision-making and the entire organization. Research on constant change that is volatile, uncertain, complex, and ambiguous leads to lost productivity and employee absenteeism, with over 12 billion workdays lost yearly to depression and anxiety alone (Miller-Jones, 2020). Research indicates that occupational stress increases physical and mental healthcare costs. Unclear job roles and excessive workload are two reasons cited by the WHO (2022a) for mental health risks, which are part of organizational leader decision-making in a VUCA environment.

The purpose of this study was to understand the crisis decision-making process of organizational leaders in a VUCA environment and how that impacts organizational leaders' BPS state and decision-making skills. The questions surrounding the study were as follows: (a) the role of effective leadership styles in crisis management, (b) decision-making criticality during a crisis and its role in human and organizational performance, and (c) the impact of leadership during a crisis on human and organizational performance (Ali & Anwar, 2021; Baran & Woznyj, 2020; Ibrahim & Daniel, 2019; Kaul et al., 2020; Spain & Woodruff, 2022).

Chapter 2 contains three sections: the literature search strategy, the discussion of the conceptual frameworks, and the literature review. The literature review synthesizes 50 years of relevant VUCA literature.

Literature Search Strategy

The literature search strategy focused on (a) VUCA, (b) the BPS model, (c) leadership theory, (d) leadership styles, (e) business success in VUCA and the BPS model, and (f) IPA, the methodological framework. The Walden Library databases provided the primary sources for dissertation reviews and peer-reviewed articles used to write literature reviews. The business and management databases, specifically ProQuest Business Collection, Emerald Insight, ScienceDirect, JSTOR, ABI/INFORM, EBSCO, and Sage, formed the foundational resources. Secondary sources were used to ensure a multilevel review: multidisciplinary databases such as Google Scholar, related business databases, trade publications databases, and manufacturing and consulting websites.

The key search terms included *VUCA*, *volatility*, *uncertainty*, *complexity*, *ambiguity*, *biopsychosocial*, *crisis leadership*, *leadership theory*, *leadership style*, *leadership development*, *human performance*, *effective leadership*, *situational awareness*, *decision-making criticality*, *behavioral strategies*, *resilience*, *stress*, *mindfulness*, *adaptive management*, and *crisis decision making*. Multiple combinations of the key search terms resulted in more comprehensive data for analysis.

Conceptual Framework

The study was conducted to increase understanding of how operating in a VUCA business environment is challenging, with the conflicts, political crises, economic threats, and social disruption that organizational leaders face in the decision-making process. Two conceptual frameworks were applied to structure the discussion: VUCA and the BPS model.

The dynamic VUCA environment has been uncomfortable for organizational leaders since the financial crisis in 2008; most recently, COVID-19 has left numerous organizations in a survival state. Leaders did not need to learn on the spot, adapt, and conceptualize fast, agile solutions under the severe life-and-death ultimatum to the extent COVID-19 presented. VUCA experience provides a framework that can be used to help leaders navigate and shift their mindsets to explore new ideas, possibilities, and solutions as exceptional leaders move forward. It also provides the structure that helps leaders explain change and give employees the tools, resources, and knowledge to thrive in a changing environment. Leaders must anticipate some challenges and barriers in the volatile external landscape. A road map that helps leaders step out of their comfort zones to make immediate operational decisions when needed will provide control over the chaos.

George Engel developed the BPS model as a holistic approach to understanding the interconnection between biology, psychology, and the social constructs within the environment. In today's world, gender is considered a BPS complex decision based on socially constructed roles and behaviors (Iantaffi, 2017). The BPS model was created to understand health and illness better and to view the whole person, which requires consideration of the physiological, medical, psychological, and sociological aspects. The BPS model is closely tied to health psychology, which examines the reciprocal influences of biology, psychology, and social factors. Applying the BPS model to the VUCA environment permits leadership to understand that stress, anxiety, and fatigue impact the organization's sustainability and competitive advantage and threaten each organization

member's health and well-being. Combining the VUCA and BPS concepts can facilitate a more proactive and strategic approach to risk management. Leadership in the 21st century must consider employees' thoughts, feelings, and behavior in organizational growth and strategic planning.

VUCA and the Biopsychosocial Model

Two conceptual frameworks are utilized to understand crisis decision-making in VUCA organizational environments and how that impacts organizational leaders' BPS state and decision-making skills. The business impact of VUCA and the BPS model is examined and applied to the healthcare and power industries to demonstrate their applicability in today's business environment. To better understand the social component of both models, VUCA and BPS relate to employee engagement and retention. Human performance is a factor benefiting both the individual and the organization, particularly in the VUCA environment, where the psychological and social constructs of the environment create unforeseen obstacles to organizational success.

VUCA Overview

VUCA has recently gained considerable attention in business and management. Initially coined by the U.S. Army War College, the term has been adopted by business scholars and practitioners to describe the challenging and unpredictable nature of today's global business environment (Bennett & Lemoine, 2014).

The concept of VUCA has its roots in the military domain. The U.S. Army War College developed the term in the late 1980s to describe the rapidly changing and unpredictable geopolitical environment that emerged after the end of the Cold War

(Bennett & Lemoine, 2014). The acronym VUCA represents four key elements: *volatility*, the rapid and unpredictable rate of change in an environment; *uncertainty*, the need for predictability and the potential for surprises; *complexity*, the intricate interdependencies and interconnectedness among variables; and *ambiguity*, the lack of clarity and difficulty understanding meaning and cause-and-effect relationships.

In the early 1990s, the VUCA concept started to gain traction in the business world as organizations grappled with the challenges of globalization, rapid technological advancements, and increasing competition (Horney et al., 2010).

Over the past decades, the VUCA concept has evolved significantly, and several scholars and practitioners have contributed to its development. Key milestones in the evolution of the VUCA concept in business include the following:

In the early 1990s, the VUCA concept was introduced to the business world by Warren Bennis and Burt Nanus in their book *Leaders: The Strategies for Taking Charge* (Bennis & Nanus, 1985). The book highlighted the need for organizations to adapt to a VUCA environment by developing effective leadership strategies.

In the late 1990s, the concept of VUCA gained further prominence in the business domain as organizations faced the challenges of globalization and the rise of the internet (Johansen & Euchner, 2013). The focus shifted from understanding the nature of the VUCA environment to developing strategies and competencies to navigate it successfully.

In the early 2000s, the concept of VUCA started to be adopted by management consultants who sought to help organizations develop strategies to cope with the

increasing complexity and unpredictability of the business environment (Stiehm &

Townsend, 2002).

From 2010 to the present day, the VUCA concept became a central theme in

management research and practice, with scholars and practitioners exploring the

implications of VUCA for organizational performance, leadership, and strategy (Horney

et al., 2010; Johansen, 2007).

Biopsychosocial Model Overview

The BPS model is a conceptual model for viewing biological, psychological, and

social interactions to understand health, recognizing that the three factors are

interdependent and mutually reinforcing (Engel, 1977). The BPS model provides a

holistic approach needed to understand and address health's complex and multifaceted

nature as it relates to a VUCA environment.

Biological factors refer to physiological processes and structures that contribute to

overall health. Biological factors such as the brain, hormones, and genetics affect well-

being. Psychological factors, such as emotions, behaviors, and personality traits, refer to

mental processes and experiences contributing to health. Social factors refer to

environmental and contextual factors contributing to health, such as workplace, cultural

norms, social support, and socioeconomic status.

The BPS model has been widely used in healthcare and related fields to guide

assessment, treatment, and research (Engel, 1980). It has been applied in various

contexts, including chronic illness, mental health, and public health. The BPS model has

been used to develop interventions that target biological and psychosocial factors in

treating chronic pain (Gatchel et al., 2014) and to understand the social determinants of health disparities in marginalized communities (Braveman et al., 2011).

In addition to its practical applications, the BPS model has contributed to the theoretical understanding of health and illness. It has challenged reductionist approaches that focus exclusively on biological factors and has emphasized the need for a more holistic and integrated approach to health and illness (Engel, 1980).

The Business Impact of VUCA

As organizations strive to navigate the complexities of the VUCA landscape, understanding its business impact becomes crucial for developing effective strategies and ensuring long-term success. The VUCA environment has presented significant challenges for organizational performance and the ability to maintain a viable advantage. Organizations have struggled to continuously adapt and evolve to stay ahead of the competition in an increasingly volatile and unpredictable business landscape. The VUCA environment has led to new business models and strategies that leverage the opportunities presented by rapid change. To succeed in a VUCA world, organizations must develop dynamic capabilities, which involve sensing, seizing, and reconfiguring resources and competencies in response to the changing environment (Teece, 2016).

Innovation is a critical determinant of success in a VUCA environment, as it enables organizations to anticipate and respond effectively to emerging trends, technologies, and consumer preferences (Osiyevskyy et al., 2020). Organizations that encourage a culture of innovation and agility are better positioned to navigate the complexities and uncertainties of the VUCA world. Innovation and agility require

organizations to invest in research and development, adopt open innovation practices, and promote a learning-oriented culture (Osiyevskyy et al., 2020). Organizations must develop the ability to balance exploration (innovation and adaptation) and exploitation (efficiency and optimization) to achieve organizational ambidexterity (O'Reilly & Tushman, 2013).

The VUCA environment necessitates a shift in leadership paradigms and human resource management practices to effectively address the challenges and opportunities of volatility, uncertainty, complexity, and ambiguity (Arena & Uhl-Bien, 2016). In a VUCA world, leaders must be able to inspire and articulate a clear vision, develop a deep understanding of the business environment, foster a culture of learning and adaptability, and facilitate effective decision-making. Human resource management practices must be designed to attract, develop, and retain talent capable of thriving in a VUCA environment, which includes adopting flexible work arrangements, offering continuous learning and development opportunities, and promoting a supportive organizational culture (Guerci et al., 2020).

The VUCA environment poses significant challenges for decision-making and strategic planning in organizations, as traditional approaches need to address the complexities and uncertainties associated with organizational crises effectively. Organizations must adopt a more agile and iterative approach to planning to make informed decisions and develop robust strategies in a VUCA world involving continuous internal and external scanning, scenario planning, and creating dynamic resources that facilitate change.

The Business Impact of the Biopsychosocial Model

The BPS model has implications for businesses and organizations beyond the healthcare industry. In recent years, there has been a growing recognition that the BPS model can improve employee health and well-being, positively impacting business outcomes such as productivity, job satisfaction, and profitability (Allen et al., 2017).

By adopting a BPS approach, businesses can recognize that employee health and well-being are influenced by factors beyond physical health, such as job stress, social support, burnout, and work–life balance (Patterson et al., 2016). A greater understanding can lead to developing programs and policies that address these factors, such as workplace wellness initiatives, employee assistance programs, and flexible work arrangements. Research has shown that these types of programs can significantly impact business outcomes. Workplace wellness programs have been associated with lower healthcare costs, reduced absenteeism, and improved employee job satisfaction and productivity (Baicker et al., 2010). Employee assistance programs have been associated with enhanced mental health outcomes and reduced turnover (Barling et al., 2015). Flexible work arrangements have improved work–life balance, decreased stress, and improved job satisfaction (Allen et al., 2013).

VUCA Effect on Healthcare Industry

The VUCA environment has significantly impacted the healthcare industry in various ways, from the rapid adoption of new technologies and the emergence of new healthcare models to the need for adaptable leadership and strategic planning. Lanucha (2023) reported that VUCA was recognized in leadership training in the early 2000s and,

over time, has almost become the new norm, particularly considering COVID-19. The COVID-19 pandemic, first identified in December 2019 in Wuhan, China, created a VUCA crisis that touched businesses, research, and government services worldwide across industries and countries. The VUCA environment changed the world indefinitely and created a new reality. The uncertainty of when COVID-19 would end and the unprecedented disruptions that bore down on organizational leaders created a new level of urgency in decision-making in all business sectors. The dilemma that vaccinations created in the healthcare industry was substantial, adding layers of complexities that profoundly affected life or death. The tension between the United States and China caused disruptions within the military and government. The interconnected supply chain crisis caused ships to be stuck at sea and trucks with no drivers. People were forced to restrict their lives, influencing the stability of businesses.

The VUCA environment has led to innovative healthcare delivery models focusing on patient-centered care, telemedicine, and remote monitoring (Joshi, 2021). These models enable healthcare providers to address challenges posed by the VUCA landscape, such as increased demand for services, resource constraints, and changing patient needs (Joshi, 2021).

Pandit (2021) reviewed the experience of Oxford University Hospital and recognized the COVID-19 pandemic as one of the most volatile, uncertain, complex, and ambiguous times in healthcare, affecting healthcare workers and systems globally. As the hospital's chief medical officer, Pandit required adaptability and courage when addressing the challenge of finding local solutions that differed from the national

procedures. While working on virtual platforms and losing colleagues to COVID-19, the

uncertainty forced resilience into the organization. Resilience became part of the

organizational culture, the infrastructure that supported COVID-19 with a focus on health

and safety for patients and staff.

Biopsychosocial Effect on Healthcare Industry

The BPS model has significantly impacted the healthcare industry, particularly in

assessment, treatment, and research. The BPS model has challenged the traditional

biomedical model that views health and illness as solely the result of biological factors

and has emphasized the importance of addressing psychological and social factors in

healthcare (Engel, 1977). Concerning assessment, the BPS model has led to the

development of more comprehensive and integrated approaches to patient care.

Healthcare providers increasingly recognize the importance of assessing patients'

psychological and social well-being and physical health to provide more effective holistic

care (Henderson et al., 2018).

Regarding treatment, the BPS model has led to the development of more

interdisciplinary and collaborative approaches to healthcare. The BPS model has

influenced the development of pain management programs incorporating physical and

psychological interventions, such as cognitive-behavioral therapy and mindfulness-based

stress reduction (Gatchel et al., 2014). Regarding research, the BPS model has led to a

greater focus on understanding the complex interactions between biological,

psychological, and social factors in health and illness. This has led to new research

methods and tools, such as patient-reported outcomes and mixed-methods research

designs, that better capture the multidimensional nature of health and illness (Greenhalgh et al., 2016).

VUCA and Power Industry

While examining different industries, the power industry affects business sustainability globally and is influenced by internal and external factors. The energy market begins with digitization, which already exists in many industries. Nowacka and Rzemieniak (2022) researched the impact of the VUCA world on the digital competencies of randomly selected managers in the power industry. The quantitative study found that leaders needed to be more consistently aware of the existence of the VUCA world even though they have access to new digital skills.

Elkington (2017) reported the challenge was departing from old patterns and schemes while focusing on reorganization and eliminating recurring mistakes. Awareness of the leader's complicated or complex situation makes it easier to manage VUCA effectively. Complications were defined as difficult situations that apply known patterns of action and experience as an advantage, while complex situations exist where knowledge and experience are lacking (Nowacka & Rzemieniak, 2022). The VUCA decision-making process cannot be prepared for in advance and requires managers to observe and take a multidimensional point of view. This study concluded that leaders must be prepared for tomorrow's uncertainty. While digitization facilitates changing the processes and functioning of the organization, leaders must possess the right competencies and skills for crisis decision-making.

The Biopsychosocial Model and Power Industry

The BPS model had not directly impacted the power industry as it was primarily used in healthcare and related fields. The BPS model could be applied in a broader context to understand and address the complex and multifaceted nature of issues beyond healthcare. The BPS model could identify and address the social and psychological factors contributing to energy consumption and sustainability. Research has shown that individual behavior and social norms significantly influence energy consumption patterns (Bolderdijk et al., 2013). The BPS model could be applied to understand the psychological and social factors influencing energy consumption behavior, such as attitudes, beliefs, and social norms. By addressing these factors, organizations in the power industry could develop more effective strategies to promote energy conservation and sustainability.

The BPS model could be applied to understand the social and psychological impacts of power generation and distribution on individuals and communities. The construction of power plants and transmission lines could significantly impact nearby communities' physical and social environments (Goodman et al., 2012). The BPS model could be used to understand and address power infrastructure development's social and psychological impacts, such as community engagement, cultural considerations, and social equity. While the BPS model has yet to have a direct researched impact on the power industry, it could be applied to understand and address the complex and multifaceted issues related to energy consumption and sustainability.

VUCA: Employee Engagement and Retention

Serrat (2017) emphasized the importance of retaining skilled and talented employees in organizations during periods of uncertainty and recommended offering employees continuous learning and development opportunities, enhancing their skills, fostering personal growth, and helping them navigate challenges more effectively. Serrat (2022) showcased how digitalization reshaped societies, economies, and governments worldwide. The leadership styles of the past no longer apply in organizations and leadership principles and skills need to be provided.

When COVID-19 began, it created high uncertainty, with millions losing their jobs. The Great Resignation, Chugh (2021), was a phenomenon that occurred with COVID-19, and in September 2020, the quit rate reached an all-time high with a record level of 3%. Employee retention reflected the vitality of the business. While there was healthy and avoidable turnover that could be prevented, it was critical to note that high turnover harmed a company's sustainability and competitive advantage. In times of crisis, the workflow changes, and uncertainty affects decision-making, creating more complexity and volatility.

Tanuwijaya and Jakaria (2022) researched how job satisfaction was tied to employee retention and the effect that leadership had, looking at both transformational and toxic leadership styles. The study found a positive correlation between transformational leadership, job satisfaction, and employee retention. The implication for organizational leaders was that the leaders who treat employees as work partners rather

than someone to be monitored will create engagement and commitment, decreasing the possibility of them leaving for another job.

The VUCA environment could have a significant impact on employee retention. In a VUCA environment, organizations need to adapt and change rapidly in response to unpredictable and rapidly changing conditions, which could create challenges for employee retention. Organizations could improve job satisfaction and employee retention by adopting strategies that address the unique challenges of a VUCA environment. One important aspect of the VUCA environment in employee engagement and retention is recognition that training, and development programs need to be adapted to meet the need to develop adaptability, resilience, and problem-solving skills that respond to rapidly changing conditions (Grover & Kapoor, 2019). Organizations could improve human performance and employee retention by adapting training and development programs to address the needs present in a VUCA environment.

Another critical aspect of VUCA framework in employee retention is recognizing the importance of communication. In a VUCA environment, employees felt uncertain or anxious about their job security or future opportunities, impacting employee's engagement and retention (Lam, 2017). Organizations could improve employee engagement and retention by communicating regularly and transparently with employees and engaging employees in decision-making and problem-solving. Organizations improve employee engagement and retention by adopting strategies that address the unique challenges of a VUCA environment and create a more agile and adaptable workforce.

The Biopsychosocial Model: Employee Engagement and Retention

The BPS model could significantly impact employee engagement and retention, emphasizing the importance of addressing psychological and social factors in addition to physical health. By adopting a BPS approach to employee well-being, organizations improve the overall happiness and well-being of their employees, which in turn, has positive impacts on employee job satisfaction, productivity, and retention. A critical aspect of the BPS model in employee engagement and retention recognizes that psychological and social factors could significantly affect employee motivation. Research has shown that job satisfaction was influenced by various factors beyond physical health, including social support, job autonomy, and work-life balance (Judge et al., 2001). By addressing these factors, organizations could improve employee motivation and engagement, job performance and retention.

Another critical aspect of the BPS model is the recognition that psychological and social factors could influence the success of training and development programs. Research has shown the effectiveness of training programs was influenced by factors such as employee motivation, learning style, and social support (Noe et al., 2014). By addressing these factors, organizations improved the success of training and development programs, which led to improved job performance and retention. Organizations improved employee health and well-being by adopting the BPS model to employee engagement and retention, positively impacting employee motivation, job performance, and retention.

Human Performance

Employees were critical organizational stakeholders and often neglected and viewed as a means to an end rather than an end in themselves (Guest, 2017). Human performance in crises is a critical area of study directly impacting the effectiveness of individuals, teams, and organizations in managing emergencies and high-pressure events. How people respond to a crisis is influenced by different factors, including individual psychological traits, group dynamics, organizational culture, leadership styles, and situational contexts. During crises, people often experience cognitive overload due to the situation's high-pressure, time-sensitive, and complex nature. Cognitive overload results in errors in decision-making or biases, such as tunnel vision, confirmation bias, and group thinking. Individuals and teams should practice critical thinking, gather diverse perspectives, and use structured approaches like scenario planning or decision trees to improve crisis decision-making.

Crisis induces significant stress and anxiety, impairing cognitive functions, emotional regulation, and overall performance. Effective stress management strategies, such as mindfulness, breathing exercises, and maintaining a healthy work-life balance, help individuals cope with stress and perform better during crises. Clear, concise, and timely communication is essential to ensure accurate information is shared and coordinated efforts are made to address the crisis. Effective communication plays a crucial role in building trust and reducing anxiety among team members and stakeholders. Strong leadership is vital during crises to provide team members with guidance, support, and reassurance. Influential crisis leaders demonstrate adaptability,

resilience, empathy, and strategic thinking. They also encourage open communication, involve team members in decision-making, and facilitate learning and adaptation.

Johnson (2018) stated that every society, organization, and community was experiencing rapid change, and many needed to prepare for the unexpected. When a catastrophe occurs, leaders are thrown into a reactionary mode and not prepared. Johnson's approach to crisis management recognized the role that stress, neuroscience, and emotional intelligence play in crisis decision-making. Johnson (2018) described the brain structures, the brainstem, limbic system, and prefrontal cortex, all contributing to how the brain reacts when highly stressed. The limbic system controls the fight, flight, or freeze and contains the amygdala. The amygdala is the emergency button in the brain constantly scanning the environment for danger during crisis management.

VUCA and Human Performance

In a VUCA environment, individuals faced unique challenges and stressors that impacted their performance. Organizations could improve human performance in a VUCA environment by understanding and addressing these challenges and building in recovery time (Appelbaum & Batt, 1994). Appelbaum et al. (2000) found the AMO model that focused on enhancing employees' abilities(A), motivation(M), and opportunity to contribute(O) does enhance performance and well-being.

A critical aspect of the VUCA framework on human performance is recognizing that individuals must develop new skills and competencies to succeed in a rapidly changing environment. Individuals must develop adaptability, resilience, and problem-solving skills to respond to rapidly changing conditions (Grover & Kapoor, 2019). By

providing opportunities for training and development in these areas, organizations could improve human performance in a VUCA environment. Another critical aspect of the VUCA framework on human performance is the recognition that individuals may need additional support and resources to cope with the unique stressors of a VUCA environment. Individuals faced high levels of uncertainty, which led to anxiety and stress (Muthusamy & Lee, 2021). Organizations help individuals cope with these stressors and improve their performance in a VUCA environment by providing resources such as counseling, coaching, or other forms of support.

The Biopsychosocial Model and Human Performance

The BPS model significantly impacts human performance, by emphasizing the importance of addressing psychological and social factors in addition to physical health. By adopting a BPS approach to human performance, organizations improve their employees' overall health and well-being, which positively impacts employee job satisfaction, productivity, and performance.

A critical aspect of the BPS model on human performance recognizes that psychological and social factors significantly influence employee motivation and engagement. Research has shown that job satisfaction was influenced by various factors beyond physical health, including social support, job autonomy, and work-life balance (Judge et al., 2001). Organizations improved employee motivation and engagement by addressing these factors, improving job performance.

Recognizing that psychological and social factors could influence the success of performance management and feedback systems is another critical aspect of the BPS

model on human performance. Research has shown that the effectiveness of performance management systems can be influenced by factors such as employee motivation, learning style, and social support (Koys & DeCotiis, 1991). By addressing these factors, organizations can improve the success of performance management and feedback systems, which leads to improved job performance. The BPS approach to human performance adds value to all organizational stakeholders improving the health and well-being of individuals, teams, and organizational leaders.

Leadership Styles Evolve From Theory

A great leadership style is memorable. The World Trade Center terrorist attack on September 11 in New York City provided an excellent example of compassionate leadership in a crisis (D'Auria et al., 2020). During the turmoil, New York City Fire Department Chief Joseph Pfeifer recalled another chief climbing atop a charred firetruck and motioning firefighters to gather around it. "I want you to take off your helmets," the chief said. The first responders were shocked, the helmet is a part of their identity and is taken off at the end of the shift, and there was still much work to be done.

When the chief explained he was recognizing the loss of life of many people and asking for a moment of silence, the reaction was immediate. When instructing firefighters to put the helmets back on and save more lives, the group was even more aligned with the purpose, and the sense of risk and uncertainty was reduced. The disasters and crises within the world have impacted leadership style that reflects both the transactional and transformational aspects of leadership. The concept of leadership has evolved significantly over the past 50 years as organizations and societies have faced new

challenges and opportunities. As the global landscape has shifted, so have the

expectations placed on leaders and how they engage with their followers. Organizational

leaders must expand their thinking and consider how stakeholders impact decision-

making (Miska et al., 2020). Traditional leader activities, planning, and managing

organizational change in processes have become overwhelming when organizational

leaders prepare for the challenges and opportunities in VUCA situations (Pearse, 2017).

Leadership Theory Versus Leadership Style

Often used interchangeably, leadership theory and leadership style represent two

different aspects of leadership. Leadership theory refers to the principles or ideas that

explain how leadership works and what effective leadership entails. Theory illustrates a

body of knowledge that seeks to understand and describe the nature of leadership,

including the traits, behaviors, skills, and situational factors that contribute to effective

leadership. Leadership style refers to the specific way a leader leads their team or

organization. Style is the approach or method a leader uses to motivate and direct their

followers to achieve the organization's goals. Leadership style is a manifestation of

leadership theory in action being influenced by the leader's personality, values, beliefs,

and the context they operate in.

Digital Revolution Affects Leadership

The digital revolution in leadership started in the late 1990s and early 2000s, with

the rise of the internet and the widespread adoption of digital technologies in the

workplace starting in the 1980s. The emergence of digital technologies has profoundly

impacted how leaders operate and interact with their followers and has created new

opportunities and challenges for effective leadership. Digital technologies have changed the nature of teamwork in ways that have important implications for leadership (Larson & DeChurch, 2020). One of the most significant impacts of the digital revolution has been the increased connectivity and accessibility of information. Leaders now have access to vast amounts of data and information, which can be used to make more informed decisions and develop more effective strategies. Digital technologies have also enabled leaders to communicate with their followers more quickly and efficiently, regardless of geographic location or time zone.

The digital revolution has led to new challenges for leadership, such as managing remote teams and navigating the complexities of digital communication. Influential leaders in the digital age must be adept at using digital tools and platforms and understanding the unique challenges and opportunities presented by the digital landscape. New technology can become disruptive in a VUCA environment, increasing complexity. Successful leadership in the digital age needed to identify how change is necessary, inspire followers, and execute the change permanently (Vutukuru & Mohan, 2016).

Organizational leaders should understand how technology plays into organizational success and prepare accordingly. For example, transformational leadership uses technology to focus on adapting to the rapidly changing environment. Overall, the digital revolution transformed how leaders operate and interact with their followers and created new opportunities for effective leadership in the digital age. The support of the Information Technology (IT) department and its role in change management and the decision-making process required more consideration (Vutukuru & Mohan, 2016).

Leadership Theory

Leadership theory has undergone significant evolution in the business world since 1980. In the early 1980s, leadership theories mainly focused on influential leaders' individual traits and characteristics. As businesses became more complex and globalized, leadership theories evolved to encompass organizational culture, follower behavior, and situational context. In the 1990s, leadership theories continued to evolve, with the emergence of transactional leadership theory. Transactional leadership theory suggested that leaders should focus on setting goals, providing feedback, and rewarding good performance to motivate followers to achieve desired outcomes (Bass, 1997).

In the 2000s, there was a growing interest in the role of emotional intelligence in effective leadership. Emotional intelligence refers to the ability to understand and manage one's emotions and those of others. Leaders with high emotional intelligence could build strong relationships with their followers and create a positive organizational culture (Goleman et al., 2002). More recently, there has been a growing interest in authentic leadership theory, which emphasizes the importance of leaders being true to themselves and their values and building genuine relationships with their followers. Authentic leaders were seen as more trustworthy and effective and were better able to build a sense of purpose and meaning within their organizations (Avolio & Gardner, 2005).

Transformational Leadership Theory

Transformational leadership theory is a popular theory extensively studied and applied in various organizational settings and was first introduced by James MacGregor Burns in 1978 and later developed by Bernard Bass in the 1980s. The theory focused on

the ability of leaders to inspire, motivate, and transform their followers to achieve their full potential rather than merely directing or controlling their actions. According to transformational leadership theory, influential leaders should possess specific characteristics and behaviors that allow them to inspire and motivate their followers. These characteristics and behaviors were often called the "four I's" of transformational leadership: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass, 1985).

Idealized influence referred to the leader's ability to act as a role model for their followers, demonstrating high ethical standards and values and gaining the trust and respect enabling followers to emulate the leader and work towards a shared vision or goal (Kelloway & Barling, 2000). Inspirational motivation referred to the leader's ability to communicate a vision or goal compellingly, inspiring their followers to work towards achieving it. The leader created a sense of excitement and enthusiasm for the organization's mission and provided encouragement and support to their followers (Kelloway & Barling, 2000).

Intellectual stimulation referred to the leader's ability to encourage followers to think critically, challenge assumptions, and be creative in finding solutions to problems. The leader promoted a culture of learning and development and encouraged innovation and risk-taking (Kelloway & Barling, 2000). Individualized consideration s the leader's ability to provide individualized support and guidance to followers, recognizing their unique needs and strengths. The leader created a supportive work environment in which

employees feel valued and motivated to contribute their best efforts (Kelloway & Barling, 2000).

Transformational leadership had been shown to significantly impact organizational outcomes such as employee job satisfaction, organizational commitment, and organizational performance (Bass & Riggio, 2006). Studies have shown that transformational leaders can create a sense of purpose and meaning within their organizations, leading to higher employee engagement and job satisfaction (Dvir et al., 2002). Transformational leaders also promoted a culture of innovation and risk-taking, which led to higher levels of organizational performance and effectiveness (Bass & Riggio, 2006).

There were potential drawbacks to transformational leadership. Some research had raised concerns that transformational leaders may become overly focused on their vision at the expense of other critical organizational goals (Eisenbeiss et al., 2008). Transformational leaders could struggle to adapt to changing circumstances, focusing more on maintaining the status quo rather than embracing new opportunities (Eisenbeiss et al., 2008).

Situational Leadership Theory

Situational leadership theory is a popular theory first introduced by Paul Hersey and Ken Blanchard in 1969, emphasizing the importance of a leader's ability to adapt their leadership style to the situational context of their followers. According to situational leadership theory, influential leaders need to be able to adjust their leadership style to fit the needs and abilities of their followers (Northouse, 2021).

Situational leadership theory proposed four different leadership styles that a leader can use, depending on the readiness level of their followers (Hersey et al., 1979). These styles are:

1. Directing: This style is appropriate for followers new to a task or job with low competence and commitment. In this style, the leader provides clear direction and closely supervises the follower's work.

2. Coaching: This style is appropriate for followers who have some experience with a task or job but still need direction and guidance. In this style, the leader provides direction and support to help followers develop their skills and confidence.

3. Supporting: This style is appropriate for followers with moderate to high competence but low commitment. In this style, the leader provides support and encouragement to help followers develop their commitment and motivation.

4. Delegating: This style is appropriate for highly competent and committed followers. In this style, the leader delegates responsibility and decision-making authority to the follower.

Situational leadership theory also proposed four different readiness levels of followers a leader can encounter. In a VUCA world, the lack of readiness can delay the decision-making process. The levels are:

1. R1: Low readiness. The follower lacks the skills, knowledge, or confidence to perform the task.

2. R2: Some readiness. The follower has some skills and knowledge but lacks confidence or commitment.

3. R3: Moderate readiness. The follower has the skills and knowledge and is motivated but lacks confidence.

4. R4: High readiness. The follower has the skills, knowledge, motivation, and confidence to perform the task.

The key idea behind situational leadership theory is that influential leaders should adapt their leadership style to the readiness level of their followers. If a follower is at R1 (low readiness), the leader needs to use a directing style to provide clear direction and closely supervise the follower's work. As the follower's readiness level increases, the leader should gradually shift their leadership style towards delegation, providing more autonomy and decision-making authority to the follower. Situational leadership theory has been widely applied in various organizational settings, such as healthcare, education, and business. It has been shown to have several benefits, such as improving employee job satisfaction, motivation, and performance (Hersey & Blanchard, 1993).

Critics have argued that this theory oversimplified the complex nature of leadership and the situational context in which leaders operate (Graeff, 1983). Others have raised concerns that the theory could lead to overly prescriptive and inflexible leadership styles that do not account for individual followers' unique needs and preferences (Yukl, 2006).

Servant Leadership Theory

Servant leadership theory is a leadership approach that emphasizes the importance of leaders serving their followers and focusing on their needs rather than their interests. The theory was introduced by Robert K. Greenleaf in 1970 and has since gained popularity in various organizational settings. Servant leadership theory emphasized the importance of creating a culture of service within organizations, where leaders prioritize the needs of their followers and focus on helping them achieve their goals (Northouse, 2021). According to servant leadership theory, influential leaders possess several key characteristics, including empathy, humility, and a focus on developing their followers. Servant leaders are attentive to the needs of their followers and seek to understand their perspectives and challenges. They prioritize the development of their followers and work to empower them to achieve their full potential.

Servant leadership theory also emphasized creating a service culture within organizations. Servant leaders model the behaviors and values they wish to see in their followers, creating a culture of trust, respect, and collaboration. They encourage open communication and feedback and create opportunities for followers to contribute their unique skills and talents. Servant leadership has been shown to have several benefits for organizations, such as improving employee engagement, job satisfaction, and organizational performance (Liden et al., 2008). Servant leaders create a supportive work environment fostering innovation and creativity, which leads to higher organizational effectiveness.

Some researchers have raised concerns that servant leadership may be overly focused on the needs of followers at the expense of achieving organizational goals (Ehrhart, 2004). Servant leaders may also struggle to make difficult decisions or provide clear direction, as they may prioritize consensus-building and collaboration over decisive action.

Authentic Leadership Theory

Authentic leadership theory was a relatively new approach to leadership that emphasized the importance of leaders being true to themselves and their values. The theory was first introduced by Bill George in 2003 and has since gained popularity in various organizational settings. Authentic leadership theory emphasizes the importance of self-awareness, transparency, and ethical behavior in leadership (Northouse, 2021). According to authentic leadership theory, influential leaders possess several key characteristics, including self-awareness, transparency, and a commitment to ethical behavior. Authentic leaders know their strengths and weaknesses and are honest and transparent in their communications with their followers. These leaders prioritize the needs of their followers and work to create a culture of trust and respect within their organizations.

Authentic leadership theory also emphasized the importance of leaders being true to their values and beliefs. Authentic leaders stay true to their moral compass, even when faced with difficult decisions or conflicting priorities. They are willing to take a stand on important issues, even if it means going against the status quo or facing criticism from others. Authentic leadership has been shown to have several benefits for organizations,

such as improving employee job satisfaction, organizational commitment, and performance (Walumbwa et al., 2008). Authentic leaders create a culture of trust and respect within their organizations, which can lead to higher levels of employee engagement and motivation. Researchers have raised concerns that authentic leadership may be too focused on individualism at the expense of collaboration and teamwork (Shamir & Eilam, 2005). Authentic leaders may struggle to balance their values and priorities with the needs of their organizations and followers.

Leader–Member Exchange Leadership Theory

Leader-member exchange (LMX) theory, developed by George Graen and Mary Uhl-Bien in the 1990s, proposed that leadership effectiveness depended on the quality of the relationship between the leader and each follower. Influential leaders worked to develop high-quality, personalized relationships with each of their followers, which led to increased job satisfaction, commitment, and performance (Gerstner & Day, 1997). LMX theory is a leadership approach that emphasizes the importance of the relationship quality between a leader and their followers. The theory was first introduced by George Graen and his colleagues in the 1970s and has since gained popularity in various organizational settings. LMX theory emphasized the importance of leaders developing high-quality relationships with their followers based on mutual trust, respect, and support.

According to LMX theory, leaders develop different relationships with their followers depending on their level of performance and commitment. Leaders form a close, high-quality relationship with some followers, referred to as the "in-group," and a more distant, low-quality relationship with others, referred to as the "out-group." The in-

group consists of high-performing followers committed to the leader and the

organization. In contrast, the out-group consists of less committed followers and less

involved in the organization. LMX theory emphasized the importance of leaders

developing high-quality relationships with their in-group followers. These relationships

are characterized by mutual trust, respect, and support and are based on the leader's

willingness to provide individualized attention and support to their followers. Leaders

who developed high-quality relationships with their followers were better able to inspire

and motivate them to achieve their full potential, leading to higher levels of job

satisfaction, organizational commitment, and performance (Gerstner & Day, 1997).

Researchers have raised concerns that the theory could lead to preferential

treatment and favoritism towards in-group members at the expense of other critical

organizational goals (Schriesheim et al., 1999). LMX theory may be limited in its ability

to account for the complex nature of leadership and the situational context in which

leaders operate.

Leadership Styles

Leadership style falls under the general umbrella of leadership theory. Leadership

theories explain why and how people become leaders and why leadership styles work.

Leadership style is the relatively consistent pattern of behavior that characterizes a leader

(DuBrin, 2001). Today's organizations need influential leaders who understand the

complexities of the rapidly changing global environment. Leadership styles may affect

organizational effectiveness or performance (Nahavandi, 2002). According to Sakiru et

al. (2013), the success or failure of organizations, nations, and other social units has been

credited mainly to the nature of their leadership style. Different variables affect business performance, but leadership style and innovativeness affect the competitive environment, significantly affecting organizational performance (Yıldız et al., 2014). Because leaders influence company policies significantly, innovativeness is vital to a competitive environment.

Autocratic Leadership Style

The autocratic leadership style emphasized that executives make all the decisions and ultimately control their team or organization. They do not seek input from their followers and instead rely on their expertise and experience to make decisions. This style can be effective in certain situations, such as in times of crisis, but it can also create a culture of fear and resentment among followers (Northouse, 2021). An autocratic leadership style is characterized by a leader with complete control and decision-making authority over their followers. The leader makes all decisions without seeking input or feedback from their followers. The autocratic leadership style is often used when a leader needs to make quick and decisive decisions or when there is a need for strict control and direction.

According to autocratic leadership theory, influential leaders must control their followers and make all decisions independently. The leader gives orders and expects their followers to follow them without question. It is practical in situations where there is a need for strict control, such as in a crisis where quick decisions need to be made to prevent further harm or damage. There are also potential drawbacks to the autocratic leadership style, leading to low employee motivation and engagement, as followers may

feel disempowered and excluded from decision-making processes (Judge & Piccolo,

2004). An autocratic leadership style could lead to a lack of innovation and creativity, as

followers may be reluctant to suggest new ideas or approaches.

Contingency Leadership Style

The contingency leadership style emphasized the importance of flexibility and

adaptability in leadership, suggesting that influential leaders must be able to tailor their

approach to fit the situation's needs (Yukl, 2002). By understanding the specific context

and adapting their leadership style accordingly, leaders could maximize their

effectiveness and achieve the best outcomes for their followers and organization.

Contingency theories include Fiedler's Contingency Theory, which emphasizes the

importance of matching a leader's style to the demands of the situation, and Hersey and

Blanchard's Situational Leadership Theory, which proposes that leaders should adapt

their style based on the maturity and competence of their followers. A contingency

leadership style is a leadership approach that emphasizes the importance of adapting

leadership styles to fit the specific situational context. The theory proposes that no one-

size-fits-all leadership style is effective in all situations. Instead, influential leaders could

assess the situational context and adjust their leadership style accordingly.

According to contingency leadership theory, different situational factors can

influence the effectiveness of different leadership styles. These situational factors include

the characteristics of the followers, the task or job being performed, and the context in

which the work is being done. Influential leaders must be able to assess these situational

factors and adjust their leadership style to fit the needs of their followers.

Contingency leadership theory proposed several contingency variables that can influence the effectiveness of different leadership styles. These variables included the leader's power and influence, the follower's readiness level, the task structure, and the leader's relationship with their followers. Influential leaders need to be able to assess these variables and adjust their leadership styles accordingly.

Contingency leadership theory has been applied in various organizational settings, such as healthcare, education, and business. It has been shown to have several benefits, such as improving employee job satisfaction, motivation, and performance (Fiedler, 1967). There are also potential limitations to contingency leadership theory. Some researchers have raised concerns that the theory may oversimplify the complex nature of leadership and the situational context in which leaders operate (Graeff, 1983). Others have suggested that the theory may be difficult to apply in practice, as it required leaders to be highly adaptable and flexible in their approach to leadership (Yukl, 2006).

Democratic Leadership Style

Democratic leadership emphasizes executive input and feedback from their followers before making decisions. Leaders value collaboration and consensus-building and encourage open communication and participation that effectively promotes innovation and creativity, allowing diverse perspectives and ideas to be shared and considered. A democratic leadership style is a leadership approach that emphasizes the importance of involving followers in decision-making processes and valuing their input and feedback. The theory proposes that influential leaders must be able to share power

and decision-making authority with their followers and create a culture of collaboration

and teamwork within their organizations.

According to democratic leadership theory, influential leaders need to be able to

involve their followers in decision-making processes, encourage open communication

and feedback, and create a culture of trust and respect within their organizations. The

leader seeks input and feedback from their followers and uses information to make

decisions in the organization's and its followers' best interest. Democratic leadership can

benefit organizations by improving employee job satisfaction, motivation, and

engagement. By involving their followers in decision-making processes, democratic

leaders can create a sense of ownership and investment among their followers, leading to

higher levels of organizational commitment and performance. Democratic leadership

emphasized executive input and feedback from their followers before making decisions,

valuing collaboration and consensus-building that encourages open communication and

participation (Goleman, 2017). This style can effectively promote innovation and

creativity, allowing diverse perspectives and ideas to be shared and considered.

Laissez-Faire Leadership Style

Laissez-faire leadership emphasized executive delegation of decision-making

authority to followers and provides minimal guidance or direction. They trusted their

followers to make decisions, take ownership of their work, and are hands-off in their

leadership approach. This style can effectively promote creativity and novelty, resulting

in a lack of direction and accountability (Judge & Bono, 2001). A laissez-faire leadership

style is a leadership approach that is characterized by a leader who provides minimal

guidance or direction to their followers and delegates decision-making authority to their followers. This leadership style is often used when leaders trust their followers to make decisions independently and do not want to interfere with their decision-making process.

According to laissez-faire leadership theory, influential leaders must have confidence in their followers' abilities and trust them to make decisions on their own. The leader provides minimal guidance or direction and delegates decision-making authority to followers, and it is practical when followers have high expertise and can make decisions independently.

Servant Leadership Style

The servant leadership style emphasized the importance of leaders serving their followers, putting their needs and well-being first, and promoting community within the organization. Servant leaders focused on creating an environment that enabled followers to grow and develop personally and professionally (Meuser & Smallfield, 2023). Servant leaders focus on creating an environment that enables followers to grow and develop personally and professionally and foster community within the organization. This leadership style has become increasingly relevant in the modern era as organizations recognize the importance of employee engagement, well-being, and retention.

Eva et al. (2019) reported that more than 300 peer-reviewed articles support servant leadership and its many benefits, including increased profits, enhanced employee well-being and productivity, and overall improvement. Leaders serve the people they work with by prioritizing work needs, valuing growth, empowering employees, being sensitive to personal concerns, building trust, and creating psychological safety. Meuser

and Smallfield (2023) viewed servant leadership as a missing component and believed

leaders have the least confidence in servant leadership. The research of Day et al. (2014)

showed the value of servant leadership and a need for specific knowledge on how leaders

develop as servant leaders.

To develop the servant leader program, the researchers worked with 276 business

community members and leaders from various industries in the United States. A lengthy

survey that focused on introspective self-knowledge, including motivation, stress, etc.,

was completed to identify aspects of oneself that would help or hinder an effort to

practice servant leadership. A survey was completed that reflected on their strengths,

weaknesses, and self-efficacy, and they participated in exercises to set and achieve

developmental goals. Individual challenges were associated with different participants,

but the community focus component, which is the specific part of servant leadership, was

where leaders struggled most.

Meuser and Smallfield (2023) defined servant leadership broadly, looking at

seven interrelated components of behavior that focused primarily on benefiting the

community. Seven components of servant leadership explained how leaders could focus

on themselves and the community. Serving others focused on the community and having

an authentic concern for helping the community. Developing followers is the next

significant component of servant leadership, along with emotional healing and showing

others sensitivity to their work and personal concerns. Encouraging team members to

handle complex situations in the way they think best empowers them for personal growth.

When leaders can prioritize their team members' career development, and members know

they will receive help growing and succeeding, they know they are being put first. As a leader, it is essential to let team members know that satisfying their work needs is a priority, and you must know yourself well to have confidence. You must know about the organization when something is going wrong and what could be done. Then ethics come into play with fairness and honesty in all interactions with others.

Riggs and Porter (2017) reported the importance of providing employees with the foundation to understand and respond to leader expectations. Servant leaders gave their followers the freedom to make mistakes, but they also supported them when things went wrong and recognize when things went right. Servant leaders are there to guide followers away from disaster and ensure they access resources for success without taking over or micromanaging. Offermann and Coats (2018) recognized that most leaders struggle to empower their followers. In a VUCA environment, it is challenging to try new things. It can be stressful and create emotional difficulties in one's personal and work life. Servant leaders have a responsibility for the emotional well-being of their team. This includes being aware of the mental health benefits provided by the company and encouraging their use when needed.

Servant leaders are actively concerned about helping the community, whether donating to your children's sports league, volunteering at an animal shelter, or corporate social responsibility with initiatives including recycling and green policies. Servant leadership culture includes self-confidence or a lack of it that drives behavior, with coaching and mentoring being utilized to help followers succeed. Followers need to know

who their leader is and what behaviors are expected. Behavior modeling could

consistently show followers who we are through words and actions.

Providing social, emotional, and tangible resources helps build relationships

between the leader and the follower. Following psychological processes will help

employees have the self-efficacy needed to succeed. Servant leadership is a multifaceted

approach to leadership utilizing psychological factors to work with employees to

understand how and why it is effective and sustainable. The biggest concern with self-

servant leadership is that a community engaging and excelling with the community

component takes servant leadership and maximizes its value.

Transactional Leadership Style

Transactional leadership is a leadership style that focused on achieving specific

goals through rewards and punishments (Bass, 1985). In this style, leaders provided clear

expectations, performance standards, and incentives for meeting or exceeding those

standards (Bass & Avolio, 1990). Transactional leaders hold their followers accountable

for their performance and provide feedback and criticism when necessary. The term

"transactional" referred to the exchange relationship between the leader and the

followers, in which rewards and punishments motivate followers to achieve specific goals

(Yukl, 2002). Bass and Avolio (1990) explained that transactional leaders motivated

subordinates through contingent rewards, corrective actions, and rule enforcement.

Northouse (2021) explained transactional leadership as exchanges between

leaders and their followers. Transactional leaders focused on results and measured

success according to an organization's system of rewards and penalties. One of the

critical benefits of transactional leadership is that it provides clear expectations and performance standards, which could help to improve efficiency and productivity. It also provided a structured approach to leadership, which can be helpful to organizations that value stability and predictability. Transactional leadership has been applied in various settings, including in the military, healthcare, and business sectors (Bass & Avolio, 1990).

Transactional leadership has been criticized for its focus on extrinsic motivation, which may not be sufficient to sustain long-term commitment and engagement among followers. Additionally, using rewards and punishments could create a culture of compliance and obedience, which may limit creativity and innovation.

Transformational Leadership Style

Transformational leadership is a modern style that emphasized inspiring and motivating followers to reach their full potential and achieve their goals (Bass, 1990). According to Bass, transformational leaders inspire their followers by appealing to their values and beliefs and by setting an example through their actions and behavior. Transformational leaders are also characterized by their ability to create a sense of purpose and meaning in their work, to challenge their followers to think critically and creatively, and to provide individualized support and attention to each follower (Bass, 1990).

Bass (1990) identified four types of leadership behavior classified as transformational. Idealized influence could sometimes be called charisma, in which the leader provides a role model and builds trust and respect in the followers. Examples of

the behavior include doing the right thing, not the most convenient, and explaining the rationale of the decision-making process (Kelloway & Barling, 2000). Inspirational motivation involved the leader sharing a vision, providing a clear vision of what followers should be trying to achieve, and setting high standards that motivate performance beyond normal expectations that, with enthusiastic support and feedback, facilitate the followers to transcend themselves (Kelloway & Barling, 2000).

The next factor of transformational leadership was intellectual stimulation, referring to a leaders' ability to challenge their followers to think critically and creatively (Bass, 1990). Transformational leaders encourage their followers to question assumptions and explore new ideas. They give their followers the support and resources to take risks and experiment with new approaches (Bass, 1990). Kelloway and Barling (2000) recommended brainstorming with their followers to exercise intellectual stimulation.

Transformational leadership also involved individualized consideration, which refers to the leader's ability to provide individualized support and attention to each follower (Bass, 1990). Transformational leaders recognize everyone's unique strengths and needs and work to support their development. They provide coaching and mentoring and create opportunities for followers to grow and develop their skills (Kelloway & Barling, 2000). Research has shown that transformational leadership could be highly effective in various contexts (Avolio & Bass, 1988). Transformational leadership has been linked to higher job satisfaction, organizational commitment, and overall organizational effectiveness (Bass et al., 2003; Judge & Bono, 2000).

In today's VUCA world, transformational leadership is a critical style that deserves serious consideration. The world is at a tipping point created by economic, social, and environmental problems, dynamic population growth, globalization, and digitalization (Miska et al., 2020). Leading in the VUCA world could require leaders to develop new capabilities that provide stability and anchor the organization as it moves forward in the turbulent, dynamic, chaotic world characterized by VUCA (Miska et al., 2020).

Transactional Versus Transformational Leadership Styles

Bass (1985) divided leadership style into transformational leadership and transactional leadership. Transformational leadership has the characteristics of individual influence, spiritual encouragement, and intellectual stimulation. Leaders often consider individuals, establish a vision and aim inside, create an open culture, trust the staff to reach their goals, and give full play for their potential. Transactional leadership is focused on the staff's basic and external demands. The relationship between leaders and subordinates is based on a contract that attains the organizational goal through specific job roles and mission design. Their primary purpose is to maintain a stable organization.

Transformational versus transactional leadership styles and project success is examined by Abbas and Ali (2021). This study was conducted to observe the effects of transformational and transactional leadership on project success, examining the proposed relationships. It was suggested that transformational leadership had a more substantial effect on project success than transactional leadership (Abbas & Ali, 2021). Burke et al. (2006) cited transactional leadership as a task-focused leadership style. Wang et al.

(2014) considered transformational leadership a person-focused style. Transformational leaders go beyond self-interest, using charisma as a leadership style. These leaders sacrificed their best interests for the team by sharing their vision and stimulating their team members (Avolio, 1999). At the same time, the transactional leader tried to motivate their team members with rewards and monitor their progress (Bass et al., 2003).

This study considered various definitions of leadership: Anwar (2017) considered leadership in terms of the ability to influence individuals to set and achieve goals. Anwar and Louis (2017) reported that leadership motivated individuals with change and vision. Hameed and Anwar (2018) viewed leadership as social growth and how people act and feel. This transactional vs. transformational leadership style meta-analysis is different. Most studies have focused on attitudinal outcomes, such as team satisfaction and commitment, or behavioral outcomes, such as team coordination and team learning (Burke et al., 2006; Wang et al., 2014).

This study investigated the effect of leadership style on team output with both transactional and transformational interactions. Project success is defined as meeting the project stakeholder's expectations and the client's satisfaction with the delivered project (Project Management Institute, 2017). There are more uncertainties when working on a project basis because of changes in the requirements and the nature of employment, and projects may be temporary. As well as, the roles and job responsibilities can vary on different projects, increasing the complexity.

There are different factors to consider, such as the project type, size, and power distance from supervisors and project members. Dorfman et al. (2012) suggested that

culture could influence team members' critical power distance relationship with their managers. In a high-power distance culture, members trust their leader's decision-making and defer to authoritative figures. Where transactional leadership prevails, the employees prefer to receive clear management directions. Mulki et al. (2015) suggested that employees with low power distance expected their supervisors to empower and coach them instead of just giving directions.

The finding of the meta-analysis supported existing literature while providing new evidence. The study found that both leadership styles were positively related to project success but suggested that the transformational leadership style had a more substantial effect. The study provided direction for future research to look at the relative effectiveness of other leadership styles. Kaul et al. (2020) recognized the COVID-19 pandemic as an unprecedented international crisis producing volatility, uncertainty, complexity, and ambiguity that required high-impact decision-making for organizational leaders. The authors considered the core principles of an effective crisis leadership model, blending transactional and transformational principles. Leaders learned new lessons and used creative problem-solving strategies to keep the organization operational and safe. Kaul et al. (2020) combined transactional leadership with transformational leadership to create a model to be used during a crisis.

Communication is a core leadership principle, and the quantity and quality coming from leaders does make a difference. The uncertainty throughout the organization produces anxiety, and Kaul et al. (2020) reported that the leader's silence will be interpreted as bad news. The worst case could be assumed without a clear perspective of

what is happening. Leaders who are transparent with communication will be honest enough to admit when they do not have the answers, building credibility. The focus of the communication is on the core values of the organization.

Decision-making becomes more complex with conflicting information, and delaying or not deciding may be worse, particularly in the COVID-19 pandemic, where decisions must be made using the best available data. Leaders tend to rely on traditional models and evidence-based decision-making. Flexibility and thinking out of the box could be demonstrated in a crisis as new information becomes available. Short-term decisions will be made quickly, while long-term decisions involving long-term strategy are guided by considering what may be sacrificed to maintain direction. Good organizational leaders engage in connecting and creating a sense of togetherness by listening to a diverse range of thoughts. Traditional leadership is stressed in a crisis, and focusing on blame and criticism is easy instead of emphasizing the connection over correction (Kaul et al., 2020). Traditional leadership tends to assert control to reduce the risk, resulting in fewer leaders, but the organization needs many leaders in crises. Instead of becoming insular, leaders should look outward for insight.

Non-traditional leaders can identify new paradigms that represent opportunity. Research has highlighted the opportunity that COVID-19 created for telemedicine that could significantly reduce provider burnout. A significant clinical backlog was created, requiring decisions to be ramped up and innovative approaches to problem-solving to be developed. The COVID-19 pandemic showed how unprepared organizations had to deal with a crisis and was a stress test for leaders.

Human Performance and Effective Leadership

Human performance plays a crucial role in the effectiveness of different leadership styles, as it directly impacts cognitive functions, emotional regulation, decision-making, and interpersonal skills. A healthy brain is essential for maintaining optimal cognitive functions, such as attention, memory, problem-solving, and critical thinking. These functions are vital for leaders to effectively process information, analyze complex situations, and make informed decisions. Leaders with good cognitive functions are likelier to excel in their chosen leadership style, be it transformational, situational, or any other. Human performance is closely related to emotional intelligence (EQ), which involves recognizing, understanding, and managing one's emotions and those of others. EQ is a critical component of effective leadership, as it enables leaders to empathize with their followers, foster a positive work environment, and respond appropriately to different situations. A leader with a high EQ can adapt their leadership style better to suit the emotional needs of their team members, leading to increased trust, motivation, and overall performance (Mather & Carstensen, 2003).

The brain plays a central role in decision-making, integrating sensory information, and generating appropriate behavioral responses. Research has shown that decision-making involves a complex interplay between various brain regions, including the prefrontal cortex, amygdala, and striatum. These regions are involved in cognitive control, emotional processing, reward processing, and learning, all critical for effective decision-making. Neuroimaging studies have also demonstrated that different decision-making tasks activate different brain regions, highlighting the importance of context and

task demands in shaping the neural mechanisms underlying decision-making (Rangel &
Hare, 2010).

Effective leadership often involves managing high stress levels and pressure,
which can be challenging and demanding. Leaders faced a variety of stressors, such as
high workload, time pressure, ambiguity, and interpersonal conflict. Research has shown
that influential leaders manage these stressors by utilizing coping strategies such as
cognitive reappraisal, problem-solving, and seeking social support. Influential leaders
could maintain physical and emotional well-being through exercise, mindfulness, and
relaxation techniques. By managing stress and pressure effectively, leaders maintained
their effectiveness and achieved positive outcomes for their followers and the
organization (Luthans & Youssef-Morgan, 2017).

Strong interpersonal skills are widely recognized as a critical component of
effective leadership, as they enable leaders to build relationships, communicate
effectively, and collaborate with others. A study by Judge and Bono (2001) found that
interpersonal skills were among the most critical predictors of leadership effectiveness.
They were more strongly related to leadership outcomes than cognitive ability or
personality traits. Other research has highlighted the importance of interpersonal skills
such as emotional intelligence, empathy, and social awareness in effective leadership.
These findings suggested that strong interpersonal skills are critical for effective
leadership across various industries and contexts.

Applied Leadership Style

Applied leadership is an essential concept in the recent business environment, as organizations must have influential leaders who can guide their teams toward achieving organizational goals. According to Northouse (2019), leadership influences others to achieve a common goal. In the context of applied leadership, this involved using various leadership styles, skills, and techniques to lead teams and achieve business objectives. One important aspect of applied leadership is adapting to different situations and contexts. Leaders must adapt to new technologies, market trends, and customer needs in a fast-paced and rapidly changing business environment. This required leaders to be flexible, innovative, and agile in decision-making (Kotter, 2012).

Another critical aspect of applied leadership was building solid relationships with team members and stakeholders. Influential leaders needed to communicate effectively, build trust, and foster collaboration among team members (Bass & Riggio, 2006). Organizational leaders were also able to inspire and motivate their teams to achieve high performance levels (Goleman, 2017). Applied leadership involved creating a culture of continuous learning and improvement within the organization. This required leaders to proactively identify areas for improvement and implement strategies to address them (Collins & Hansen, 2011). It involved empowering team members to take ownership of their roles and responsibilities and encouraging them to develop their skills and knowledge. Applied leadership is an essential concept in the business environment, as it enables organizations to navigate complex challenges and achieve business objectives.

Influential leaders should be adaptable, relationship-oriented, and focused on continuous improvement to succeed in a dynamic and competitive business landscape.

Pearce and Conger's (2003) research showed that effectively applied leadership skills involved distributed leadership responsibilities focusing on vision, action, planning, and reflection as the critical components. These components helped organizational leaders implement effective strategies to achieve their goals and foster continuous growth. Vision involved developing a clear and compelling vision of the future. Influential leaders articulated a clear vision that inspired and motivated their followers. Vision served as a roadmap for the organization and guided decision-making and action taking concrete steps to achieve the vision. Influential leaders should be able to translate their vision into action by setting clear goals and objectives, developing strategies for achieving these goals, and mobilizing their followers to act.

Planning involved developing a comprehensive plan for achieving the vision. Influential leaders should develop a realistic, achievable, and actionable plan, including timelines, resource allocation, and risk mitigation strategies. Reflection involved reviewing past performances and learning from those experiences. Influential leaders reflect on their actions and decisions and learn from both successes and failures. This continuous learning and growth process is critical for developing applied leadership skills. The Applied Leadership Process has been applied in organizations and the military to provide a framework to enable human performance in a crisis. The U.S. Army defined leadership as influencing people with purpose, direction, and motivation to improve the organization and accomplish the mission (U.S. Department of the Army, 2019). Maxwell

(2002) defined leadership as influence, believing the accurate measure of leadership is influencing because authentic leadership cannot be assigned, awarded, or appointed. It must be earned. Maxwell used the example of Abraham Lincoln to explain the Law of Influence. He was a volunteer and elected as a captain in the war, and by the time the war was over he had received a land grant from the U.S. government for his military service.

Applied Strategic Leadership Process

Given the acceleration of environmental volatility, complexity, and competition, Spain and Woodruff (2022), with the U.S. Military Academy, offered strategic organizational leaders the Applied Strategic Leadership Process (ASLP) as the infrastructure that supports the BPS model. ASLP simplified the leadership approach and integrated knowledge with practical tools to enable successful human performance across cultures, situations, and leadership styles. The ASLP is organized with the themes of strategic judgment, influence, and resilience. The strategic judgment includes assessing the external and internal environments and setting strategic direction by choosing the optimal big ideas. Strategic influence includes leading the organizational change needed to accomplish the big ideas. Strategic resilience includes developing its leaders' strategic competencies, character, and wellness while attracting and building a pipeline of junior leaders.

The four-step process is linear, but the steps overlap conceptually. Step one assesses the external environment, and step two evaluates the internal environment and develops strategic resilience. This is used in developing junior leaders and building

leadership character. The third step is setting the direction and getting the big ideas right; the fourth is leading the change internally and externally.

In 2022, Spain and Woodruff interviewed six highly successful leaders who set strategic direction globally to identify the competencies most needed in today's complex, competitive environment. Seven direct competencies and three enabling competencies that contribute to strategic judgment, influence, and resilience were developed. Learning agility and leading innovation were the two direct competencies that impacted all three areas. The other direct competencies included spanning organizational boundaries, a thorough decision-making process, building high-performing teams/culture, interpersonal influence, and forthrightness. In the VUCA world context, the ASLP provided organizational leaders with the strategic competencies required to maintain sustainable competitive advantages for the future. Human performance is the underlying power that successful organizational leaders run off.

Situational Awareness Phenomenon

Situational awareness (SA) referred to an individual's perception and comprehension of the environment and understanding of the situation's meaning and potential future states (Endsley, 1995). It involved being cognizant of relevant information, events, and factors in the surroundings and integrating them to form a picture of the current situation. SA enables organizational leaders to make informed decisions, anticipate changes, and respond effectively to dynamic and complex situations. Endsley's model consisted of three levels of awareness:

Level 1: Perception of Elements – detecting and perceiving the attributes of objects, people, and events in the environment.

Level 2: Comprehension of Situation – processing and interpreting the perceived information to understand the situation and the relationships between the elements.

Level 3: Projection of Future States – looking beyond the current situation and anticipating future developments, potential risks, and available opportunities based on their understanding of the situation.

SA is applicable in organizations that require a quick, effective response that can be used in decision-making, such as healthcare and emergency management. It is helpful for leaders to identify social cues and risks so they can adapt their behavior to for the crisis decision-making process.

Marcus et al. (2020) recognized that evaluating the situation is the most critical challenge for organizational leaders in a volatile, uncertain, complex, and ambiguous environment. SA provides the information necessary to determine the next step and crisis decision-making. SA is the process of understanding and interpreting what to do about certain circumstances (Marcus et al., 2020). The importance of SA was recognized in World War I, as being aware of the enemy before the enemy had a similar awareness provided the strategic upper hand and competitive advantage. SA can be applied in emergency management, military command, and medical decision-making because these are dynamic environments with complex problems, time restraints, and high-consequence decisions (Uhlarik & Comerford, 2002).

The Federal Emergency Management Agency (FEMA) recognized the challenges of operating in times of crisis and trained leaders in situational awareness concepts and techniques. The FEMA Emergency Management Institute reports that obstacles like missing data, failure in communication systems, and weakness in one's mental model or approach limit the capacity to obtain SA. There are three different models for defining SA. The first is information processing, which is the perception of the elements in the environment, comprehension of the meaning, and prediction of the future (Endsley, 1988). The second focused on individual activity concerning tasks and goals (Stanton et al., 2001). The third model considered SA a perceptual model with three components: the information in the external environment, the schema, and environment exploration (Adams et al., 1995).

Boyd (2018) linked perception and action: observe, orient, decide, and act with the OODA Loop. The OODA Loop did not go well in corporate environments. Still, building cognitive function and human decision capacity into the BPS conceptual framework in the Modular OODA loop (M-OODA) supports the POP-DOC Loop, a six-step tool combining analysis and action in a continuous loop. The six steps are perceive, orient, predict, decide, operationalize, and communicate. The advanced design of the POP-DOC Loop included a range of human factors and brain science (psychology, neuroscience, and brain imaging) research so leaders could build high-stress, high-stakes, evolving, and unpredictable situations into situational awareness (Marcus et al., 2020). McNulty et al. (2019) reported that this increased the understanding of leaders in crises.

Brown et al. (2018) reported that neurological and psychological factors affect crisis leaders' thinking and decision-making.

The first step in the POP-DOC loop is to perceive and engage in active awareness building. Perceiving in the brain means comparing expectations to the incoming sensory data (Eagleman, 2011). Perceiving taps into the brain's subconscious, searching for what is unseen and unknown. The second step is to orient and assemble information into patterns, making monitoring and relationships in the data less complex when analyzing the problem. Third, prediction is the most challenging. Confidence in a prediction does not mean it has a high probability of being true (Kahneman, 2011). The human mind trusts intuitive predictions over data-driven predictions.

The prediction phase is best informed through socializing and gathering input from stakeholders and team members (Marcus et al., 2020). The fourth step is to decide and commit to a course of action. Deciding too quickly or slowly risks failure when the leader decides to act and test the accuracy of the prediction. The fifth is operationalizing and connecting the stakeholders and others affected by the action. Pillay (2012) reported that distinct neural patterns are present in the brain when deciding and executing that have the possibility of failure and recommended using linguistic clues that activate the brain to act. While communication is present at each phase, the communication gathered in the final stage determines what will happen next. Not all communication is equal, and sending out information that is value-added and not distracting is critical.

Combining the VUCA and Biopsychosocial Framework

In the VUCA world, there are knowns and unknowns. Organizational leaders must ask the right questions for timely decision-making and operationalization. The COVID-19 pandemic illustrated the POP-DOC model. There was enough information present to perceive the evolution of the virus in China and the strain on healthcare in Italy so that a model was developed to orient leaders to the crisis and predict how it would affect health globally. The information was presented to government leaders, who could adopt social distancing policies state by state. Putting those decisions into operation required communication for public support. The POP-DOC Loop was used continuously for analysis and decision-making. This model incorporated brain science, psychological factors, and the social impact of crisis leadership.

The relationship between situational awareness and applied leadership is evident in how leaders utilize situational awareness to guide leadership actions. Influential leaders understand the context in which they operate, including the internal and external factors that impact their organizations or teams. By being aware of the situation, organizational leaders can make informed decisions, adapt their leadership approach, and effectively guide followers (Day & Dragoni, 2015). Both Applied Leadership Strategy and SA support the science behind how we think. Biopsychology examines how the brain affects behavior and examines cognitive processes, emotions, and behaviors related to leadership practices.

Boyatzis et al. (2002) recognized the role emotions play in decision-making that improves leadership effectiveness. Leaders with high levels of self-awareness are aware

of the emotional impact on their decision-making processes and may use their emotional

intelligence in their leadership actions. Leaders who let their biases come into play,

confirmation, or anchoring bias, will make suboptimal decisions (Kahneman, 2011).

Biases have adverse effects on critical thinking and limit the decision-making process

capabilities. By incorporating biopsychology into the effective leadership models, the

social impact of leadership in crisis becomes more evident and can be applied in VUCA

environments for improved executive function. Social cognition is sometimes called the

social brain (Chang, 2020). Several brain regions mediate social behavior, and

understanding the importance of social interaction in our daily lives adds value to

leadership skills.

Decision-Making Criticality

Daniel Kahneman's 2011 book, "*Thinking, Fast and Slow*," described two ways

the human brain thinks and makes decisions. The first is referred to as system one

thinking. This is where the brain goes to the familiar thoughts, and decisions are made

with your gut instinct. Often, we will go there because this is where we are comfortable.

Systems two thinking allows us to step back, look at our options, and see the bigger

picture. Decision-making criticality refers to the degree of importance and urgency a

decision has in each context. Usually, crisis decisions have high risk and require careful

consideration of the different available options, both the risks and benefits. The

complexity and uncertainty of the situation can amplify the time pressure and the limited

information available in the decision-making process.

Decision-making and critical thinking are intertwined (Clarke et al., 2019). Critical thinking is a process of analyzing, synthesizing, and evaluating information to decide (Nordquist, 2019). Critical thinking combines reasoning, problem-solving, and evaluating and provides a different perspective. Helsdingen from the Open University in the Netherlands defined critical thinking as reasoned thinking with a purpose and wanted to know whether critical thinking skills improve decision-making (Sieck, 2021). A cognitive decision-making model was used in developing the core critical thinking skills that acknowledge that you may be wrong, accept statements as accurate when they conflict with yours, and adopt an initial position that you disagree with and reason from there. Significant decisions are shaped by considering different viewpoints, and critical thinking reduced the standard errors or biases in the process (Moore, 2022).

Kaul et al. (2020) studied COVID-19 as an unprecedented international crisis producing volatility, uncertainty, complexity, and ambiguity that referred to high-impact decision-making for organizational leaders. The authors considered the core principles of the effective leadership model, including transactional and transformational principles regarding decision-making, speed and the ability to be flexible as critical components.

Minciu et al. (2020) examined the direct and indirect factors that affect decisions at different organizational management levels in the decision-making process. The authors reported that the organization runs off a series of managerial decisions that depend on each other to achieve economic and financial balance. In most organizations in the VUCA world, risky choices are made with a need for more data. The study found that

most decisions made in uncertain conditions due to the chaotic business environment are based on the creativity and intuition of management.

Digital transformation has changed how activities are carried out in the decision-making process. In an uncertain business environment, all leaders make daily decisions, and in the VUCA world, the organization must adapt quickly to daily changes. Employees in the organization face different situations every day, and to be efficient, they have to act instinctively based on experience (Koudstaal et. Al., 2019). Managers must have a vision to counteract the volatility in the organization and be able to understand developments even when they do not have all the necessary information.

The complexity of the organization's environment lies within the connections and interdependencies that exist. When a decision is made in one department, it can affect another or the whole organization (Minciu et al., 2020). When deciding in the VUCA world, the information is incomplete, it is impossible to look at the alternatives and make the best decision for the whole organization. Minciu et al. 2020 pointed out the two key factors are the decision maker, and the leader with the necessary skills to decide for the organization and the environment. All internal and external factors affecting the decision are critical.

The research by Minciu et al. 2020 identified the main stages of the decision-making process. The first step was identifying the problem and looking at opportunities and the barriers that must be overcome. The second was identifying all the decision variants and the methods to find all the possible alternatives. Third, evaluating each decision variant and selecting the optimal one most advantageous to the organization.

The fourth and final steps were to implement the chosen decision and monitor the effects obtained.

In the first phase of identifying the problem, the data must be collected on the available information, and the crisis should be examined in terms of what must be solved. Objectives are established given the situation and the decision variants that are uncontrollable factors in the VUCA environment. Once the information can be quantified by looking at the social and economic impact and the decision variants have been investigated both from a positive and negative point of view, the best alternative can be selected. Vecchiato (2019) identified that the biggest challenge for organizations was the ability of the leaders to analyze as quickly as they can handle the new situations that emerge.

The emotions of the people involved also influence the decision-making process. Particularly the fear of not achieving the result can hinder the research of all sources (Barrafrem & Hausfeld, 2020). The authors believed the decision-making situation in the VUCA world cannot be defined entirely, so the best approach was an intuitive approach where managers assume they can identify the variances. It is better to adopt a wrong answer at the right time.

Decision-making and motivation influenced each other and are interdependent (Pohankova, 2010). The inner and outer motivation of the decision-maker is affected during the decision-making process, and motivation can impact the decision's final wording. The decision-making process goes through stages and affects motivation differently and influences the employees' level of motivation.

Risky decisions are defined by the probability of an event with negative consequences and how that impacts the organization. Looking at each consequence and the probability of occurrence can develop a risk response strategy, which is a significant step in any management process (Ciocoiu et. al., 2019). Organizations have developed decision-making systems using computer systems that have benefits, including reduced response time, researching data obtained in the past, and making forecasts.

Most decisions in the VUCA world are uncertain, and the probability of the event cannot be established. These decisions are based on intuition and creativity and require different analysis methods because the problems can be clearly defined. There are different techniques. The pessimistic technique assumes the deciders will only see black and have a negative consequence. The optimistic technique examines the failures and successes the decision can bring the organization and chooses the optimal variant. Laplace's technique assumes that the decision-maker knows that consequences can occur with the same probability (Laplace, 2012). Savage's technique is utilized when the decision-maker does not want to regret the decision (Savage, 1972). While there are tools to be used in the decision-making process, who is involved in the decision is a critical component of how well the decision will influence the organization.

In 2005, Hurricane Katrina in the United States created an awareness of the risk of natural disasters. It was one of the strongest storms to hit the U.S. in the last 100 years. New Orleans was destroyed, forcing residents to leave and find shelter. Close to 90% of the city was flooded, and if the hurricane did not destroy the structures, they had to be because of how long the flood waters were there. November et al. (2022) reported a new

approach to crisis management based on two studies from the hurricane sequence (Irma, Jose, Maria) in September 2017 that looked at the impact of anticipation in decision-making. The September 2017 hurricane crisis revealed the need to anticipate the hurricane's impacts on shore for both the environment and human lives.

Anticipation has a simple definition of getting ahead of a future situation or simply forecasting a situation or event (November et al., 2022). It is challenging to build strategies ahead of time. When anticipation impacts decisions with practical impacts, questions during significant crisis anticipation and decision-making in uncertain times were conducted on partial perceptions of the situation (Reghezza-Zitt, 2019). One of the difficulties in implementing the anticipation function during the hurricane sequence came from the coexistence of different reference frameworks, crisis management versus risk management. Decisions considered the long-term effects on the territory that increased the resilience anticipation, and decision-making needed to be looked at and understood as a continuum. This is consistent with the shift from crisis management to risk management. The authors highlighted the need for interdisciplinary research and approaches to address the difficulties of anticipating crises.

Thomas (2020) examined how and why leaders made decisions as they did in an organizational crisis such as the 2017 California firestorm. The hypothesis was that the better the understanding of crisis decision-making, the more equipped organizational leaders are when disaster strikes. Three fires, the Tubbs Fire, the Nuns Fire, and the Atlas Fire, ran in October 2017, spreading rapidly. Much of the local population was unaware of the fires because the public emergency system was not in full force. The severity of

these fires burned 145,000 acres, destroyed 8,900 structures, killed 31 people, and displaced approximately 100,000 people (Thomas, 2020). Organizational leaders were impacted personally and professionally. Fifteen leaders participated in the qualitative study; two lost their homes, and seven evacuated. Three leaders had personal or family medical concerns. Six leaders had partial or destruction of the organization's main facilities. Several leaders perceived they were still in crisis when the study was conducted (Thomas, 2020). The first theme identified related to the decision factors' fluidity and variability. Second, it related to the team's trust in the crisis leader, and third, the well-being of the decision maker.

Two traditional models for decision-making were used to analyze the crisis decision-making during VUCA. First, the Normal decision-making model is linear; gathering and analyzing data, developing alternatives, and then deciding. Second, Naturalistic is based on people recalling a past event and applying that to the current situation. Thomas (2020) reported that during the 2017 fires, the volatile, uncertain, complex, and ambiguous situation, the crisis decision-making process was influenced by the fluidity of the constantly changing internal and external factors. When decisions are sequential and logical, leaders can plan and develop solutions. In a VUCA environment, the factors that influence the decision-making have more variables and are more wide-ranging than previously thought.

The internal decision factors that vary from person to person include self-identity, personal experiences, natural biases, stress response, knowledge and expertise, and a sense of control. The external factors from the crisis environment include crisis

consequences, social influences, group dynamics, time constraints, work rules, changing conditions, and information availability (Thomas, 2020). In the study, the self-identities of the leaders drove the decision-making. The identity ranged from the leader, change agent, being reliable, and the parent, and influenced the decision-making process the most. Trust emerged as a consistent theme, and leaders with high levels of trust experienced less stress over the decision outcome.

The human element has been under-represented in crisis management, with most of the literature directed at the processes, procedures, and matters that could be dealt with tangibly. Thomas (2020) utilized a natural disaster crisis to highlight one aspect of a VUCA crisis: the decision-making process and how people think and behave, an essential aspect of crisis management. Building on how the various psychological factors affected the decision-making process, the study by Riaz and Hunjra (2015) was conducted by looking at investors' behavior while making decisions and examining the role of risk perception. The study found that investors' behavior depended on how the available information was presented to them and how prone they were to take a risk while in the crisis decision-making process.

Risk-taking is behavior influenced by the situation and the interactions between the situation and the decision-maker (Riaz & Hunjra, 2015). We typically depend on life experience, intuition, instincts, and gut feeling when dealing with risk. Today's world leaders make decisions based on risk analysis and how to control identified risks. The riskiness is determined by the variability in the uncertainty of the potential outcomes (Highhouse & Yuce, 1996).

Two factors influence risky decision-making: risk propensity and risk perception of the decision-makers. Risk propensity involves the tendency of the decision maker to either take or avoid risks based on their perception of the risk in the situation. Risk perception is a social and cultural construct that reflects values, symbols, and ideology that influenced investors' decisions on risk preferences, like attitude and perception (Weinstein, 1980). Also, risk perception supports the psychological factors and their clinical role in decision-making.

Final Considerations

Character is recognized as a factor that influences the decision-making process. This includes integrity, honesty, responsibility, and empathy. Research suggests that individuals with high character levels are more ethical and responsible in decision-making, even in challenging and complex situations. Integrity is adhering to moral and ethical principles, even when facing pressure to do otherwise. Responsibility is the willingness to accept accountability for actions and decisions, and leaders with high levels of responsibility are more likely to take a proactive approach. Empathy is the ability to relate and understand the feelings and perspectives of others and make decisions that consider all stakeholders' interests. Chronic stress can impact decision-making abilities and lead to brain structure and function changes, leading to impairments in executive function. The biopsychosocial status of organizational leaders plays a significant role in the decision-making process.

Leadership Development as a Component of VUCA Success

COVID-19 surprised the world, and the business sector and its stakeholders were included. During the crisis, organizational structures changed, job design changed, and how we worked changed the role of leadership and crisis decision-making. The volatility, uncertainty, complexity, and ambiguity forced leaders to become agile and adaptive. The leaders motivated to lead during COVID-19 were considered adaptive (Bajaba et al., 2021). As of December 28, 2020, the WHO (2020) reported 79,673,754 confirmed cases and 1,761,381 deaths due to COVID-19. Fu et al. (2021) found that employee anxiety levels affected engagement, performance, and emotional exhaustion. Organizational leaders influenced the workplace by providing the resources needed to create psychological safety for employees. Due to the unexpected nature of the crisis, leaders were not prepared, ready to change, and were constrained by ambiguity, time constraints, and life-and-death stakes (Parry, 1990; Mumford et al., 2007; Sommer et al., 2016).

In the last decade, the discussion on leadership in the VUCA world has produced an increasing number of publications focusing on the threats related to VUCA (Krawczyńska-Zaucha, 2019). A new paradigm of management and leadership is looked at to reframe the VUCA threats into manageable challenges. The main challenge in the volatile world is having a broad perspective that offers balance and allows for decisions to be made quickly and with agility. A leader who was taught that there was one right way to do things does not have the skill or the right mindset to deal with volatility. The main challenge of uncertainty is the lack of a process to handle the massive amount of

information and wade through contradicting facts. This required more than using an algorithm or linear model to interpret the data.

As a leader in a complex world, the ability to analyze the entirety of the situation and the individual parts simultaneously while integrating the information and using it for decision-making required flexibility (Krawczyńska-Zaucha, 2019). Making sense of what is going on in an ambiguous environment requires cohesion, the effect of authenticity, and the leader's self-awareness, which influences others to collaborate, which is an untaught skill. In today's world, leaders should be able to manage the unknown, and organizations must understand the necessity of developing leadership qualities to thrive in the VUCA world (Lebow et al., 2002).

Leadership development is a critical component of VUCA's success, as it can help organizations develop leaders capable of adapting to changing circumstances and leading effectively in complex and unpredictable environments. Hughes et al. (2018) maintained that leadership development could help individuals develop the skills and competencies needed to navigate uncertain environments. They proposed a framework for leadership development that included several key components, such as self-awareness, social awareness, adaptability, and resilience. Day et al. (2014) emphasized the importance of leadership development in the context of VUCA and proposed a framework for leadership development that included several key components, such as cognitive readiness, emotional readiness, and behavioral readiness. They contended that organizations can increase their adaptive and effective leadership capacity by developing cognitively, emotionally, and behaviorally prepared leaders for VUCA challenges.

Nair and Bhaduri (2020) recognized that stress affects a leader's physical and emotional well-being. There are common causes of leadership stress, and the symptoms emerge in different ways: anxiety, ruminating thoughts, shifts in mood, lack of concentration, and fatigue. These symptoms will not go away on their own. Harvard Business Review recognized that business leaders need agility to create a vision and support human performance in the organization (Rindone, 2021). The anxiety within the organization needs to be addressed as natural anxiety so that employees have the psychological freedom to feel safe and productive. In a traditional workplace, this was present in the water cooler gatherings, which provided a place to share ideas, interact socially, and identify as part of a team. Remote working from home changed the trust and the inclusiveness of work relationships, contributing to leadership stress.

Nair and Bhaduri (2020) identified three sources as the root cause of leadership stress. First, the demands from the role with constant pressure form stakeholders' expectations. With digital disruption, the leader's knowledge base constantly changes, and the learning curve is accelerated. The internal environment, competitiveness, lack of collaboration, being micro-managed, as well as the external threats, the social, political, and economic changes are disruptive. With all the interruptions, it is exhausting, and the energy is lost, causing burnout and suboptimal performance.

Second, stress occurs when a leader's values contradict the organization. The organization expects leadership to model behavior that reinforces the organization's values. A lack of trust occurs when there is conflict over the importance of thoughts and feelings. Third, when the BPS model is compromised in search of success. Extended

hours are worked, resulting in sleep loss, and work is the top priority in the leader's life, causing a disconnect with emotional and spiritual well-being.

Coaching is recommended to help fight stress and help leaders find their sense of purpose and aspirations and achieve their goals (Nair & Bhaduri, 2020). Stress will affect physical and mental health, with research reports on more heart attacks and strokes. Harvard Business Review reported that companies that move from "command and control" to a coaching culture are better prepared to manage priorities, support employees' physical and emotional health, communicate more effectively, and adapt to a changing environment (Rindone, 2021).

Lawrence (2013) believed the fast-paced VUCA environment required HR and talent management professionals to change their focus and leadership development methods and move toward complex critical-thinking skills. Petrie (2011) believed that leadership development focus included learning agility, self-awareness, comfort with ambiguity critical components, and strategic thinking. Horney et al. (2010) recommended that the structured interview format be used to assess agility and complex thinking skills with questions about past experiences. They also recommended that scenario planning about possible future situations be included in leadership development programs. Scenario planning should be done frequently to create muscle memory (Sullivan, 2012).

Lawrence (2013) recommended that training and development programs, coaching, and mentoring focus on developing adaptability, innovation, agility, communication, and other critical-thinking skills utilizing technology platforms that can deliver the programs faster. Simulations, including role plays, help leaders assess their

strengths and weaknesses, making them aware of their skills (Lanik & Eurick, 2012). The Adaptive Advantage Index developed by the Boston Consulting Group is a tool that can measure how healthy organizations adapt to turbulence based on research showing that the ability to adapt creates value in both the short and long term (Reeves et al., 2012).

A common perspective that evolved in 2019 from a Human Resource Management scholarly approach was the clear-cut need for individuals to change themselves continuously and be ready for future opportunities. This could happen by organizations extending developmental practices to employees inside and across organizations with short-term internships, visiting other organizations, and immersive learning experiences.

<div align="center">**Lessons to be Shared**</div>

Managing VUCA With Agility

Baran and Woznyj (2020) followed the implications of VUCA for leaders and organizations for the past decade. Different ideas have been explored for leaders to guide the organization through the uncertainty in industry and academia. Twenty years ago, Elaine Pulakos introduced adaptive performance, which included handling emergencies or crises, learning new techniques, and stress management techniques. Agility involves some of this, and for organizations, agility means making sense of new situations and supporting the necessary interaction for better quality decision-making. Baran and Woznyj (2020) defined organizational agility as sensing and monitoring the internal and external environment and the stakeholders to notice and respond to weak signals representing threats or opportunities. It was essential to understand the components that

make up VUCA and how leaders could deal with it. Their article was written to provide a resource to leaders to build agility in their organizations in the VUCA world.

Linnenluecke and Griffiths (2010) agreed that agility could help organizations develop the capacity to respond to emerging risks and opportunities quickly and effectively, applying three actions that guided the organization through the chaos. Identify your VUCA, define agility obstacles, and implement agility-enhancing practices. The findings from their study of 1,152 leaders, blended with other relevant research based on science and evidence, supported building an agility model for organizational leaders to follow in managing VUCA in their environment. There is no specific order for the three actions to occur, and they can run parallel with interactions that focus on human performance dynamics.

To survive in the VUCA world, companies needed a coping strategy that kept them ahead of the trends and equipped them to handle unexpected externalities (Cavusgil et al., 2021). Slow communication and bureaucracy were noted to hinder organizational agility. Speed is the primary component of agility. Strict adherence to rules and guidelines slows down the communication process and prevents quick decisions from being made. The organization must move together, not just one part, such as engineering, due to the frustration caused when one section performs optimally. When the organization is not performing, it affects the social construct. With the technical advancements, processes become outdated and need to be revised, but the change is occurring at such a fast pace that it takes time to keep up.

Baran and Woznyj (2020) proposed building agility on individual, team, and organizational levels to better sense the change and be ready to respond. Two open-ended questions were utilized in their study for a better understanding of the agility obstacles.

1. "What is the most important practice that your organization is currently doing to help you become more agile?"

2. "What is the most important practice that your organization should do in the future to help you become more agile?"

There were some common recurring themes, and one of the most prevalent was effective communication and transparency, internally and externally. Gallup, Inc. (2023) reported that the foundation for your business strategy is employee engagement, and every conversation between a manager and an employee affects engagement. Communication is critical in times of change, and fast communication promotes agility and decision-making. Baran and Woznyj (2020) reported that frontline employees reported useful information was needed for sensing VUCA. Knowledge sharing of information across teams and departments promotes agility and identified VUCA trends and implications for the organization. Leaders needed to model open communication within their teams and across the organization to create an agility-based organizational culture.

Change is continual and does not stop. Neither should improvement and learning. An agile organization views change as an ongoing process and strives for continuous development. Feedback is an excellent source of information that can be used continuously to learn and grow as an organization. T-Mobile is cited as a case study from

the Institute for Corporate Productivity because leaders used customer feedback to

change company operations, policies, and procedures, which helped them to stop

operating in the inertia of the status quo. In the VUCA world, stepping away from the

status quo is hard unless reasoning and understanding have been provided on the change,

bringing success to the organization. Other obstacles included are time and organizational

design barriers, unresponsiveness to customer needs, and growing pains.

Monitoring, sensing, and assessing the VUCA in the environment is critical to

help leaders anticipate change. A VUCA audit has been developed to provide leaders

with a mechanism to become aware of weakness early before it gains strength and

negatively influences the organization's success. The open-ended questions provided

valuable data concerning trends, regulations, customers, and competitors that could be

used to adapt rapidly when needed. The leader's checklist for enhancing agility focused

on the behavior a leader must do with their teams.

Communication in the VUCA Environment

As Baran and Wozynj (2020) explained, communication is critical to success in a

VUCA world as it facilitates individuals, team members, and organizations to navigate

complex and changing circumstances effectively and rapidly by utilizing five

fundamental tools. These tools aided in sharing information helping leaders effectively

communicate with their teams with a sense of purpose and trust in times of uncertainty

(Mendy et al., 2020). A crisis makes essential communications more complex, and

ambiguity creates confusion when interpreting the message. Contact with a diverse group

with different cultural influences could affect how the information is received and

understood. Following the five techniques outlined below will infuse understanding and meaning into the organization.

First, give people what they need when they need it. As the crisis evolves, people's need for information does too. In the beginning, communication needs to encourage calmness and instructions on how to stay safe. When psychological safety is achieved, the focus will shift to accepting the change and uncertainty. As questions arise, listen carefully to help people make sense of the crisis.

Second, acknowledge that research shows communication should be clear, concise, and frequent. When people are in stress mode, their ability to absorb information is limited, and they need to hear what makes them feel safe. When sharing crucial information, keep the message simple, to the point so that they know what action is required. People pay more attention to the positive than the negative so frame conversations around the benefits, not what they should not do. Studies show that people need to hear health-risk-related messages nine to 21 times to perceive the risk.

Third, choose candor over charisma. Communication should build trust to build the confidence of the employee. Be honest and do not speculate or minimize the information. Carefully share your feelings and recognize the personal effect of emotional upset. Actions speak louder than words, so be sure behavior reinforces the words.

Fourth, revitalize resilience. Focus on what can be controlled and the positive by sharing positive stories and recognizing strength within the organization. Help others that are in a high-stress mode, and that will strengthen the team bonds. Reflect on shared values, habits, and norms. Start to build a new common identity that all can share in.

Fifth, distill meaning from chaos. Communicate in a way that helps people make sense of all that has happened. Be open about what the organization can achieve during the crisis. Explore a clear vision or mantra for how the organization will emerge. The use of affirmations can help connect the employee to the bigger picture. Crisis communication is not easy, and it improves with practice and experience and the communication should be clear, transparent, relevant, and meaningful (Shankar, 2021).

Behavioral Strategies in the VUCA Environment

Oreg and Berson (2019) stated that behavioral strategies helped individuals and organizations develop the resilience, adaptability, and proactive orientation needed to navigate VUCA challenges. They proposed a framework for behavioral strategies that included several key components: positive emotions, mindfulness, learning orientation, and proactive personality.

Levey and Levey (2019) reported that to safeguard us from the stress and burnout associated with VUCA times leaders must develop the capacity to work more mindfully and be more resilient. If mindfulness persists and stress accelerates, we will become overwhelmed and out of touch with reality. Leaders at every level in organizations and society are unprepared, overwhelmed, and struggle to use their conscious awareness. A finding from a McKinsey study reported that 70% of change efforts do not meet the organizational goals, and the value gap was attributed to not investing enough time in developing mindfulness, resilience, and wisdom (Dewar & Keller, 2009). Palmer (1998), a pioneer in leadership education, reported that people rise to leadership by extroversion and ignore what is going on within themselves. The value of mindfulness is supported in

a recent study of more than 35,000 leader assessments and 250 interviews with senior executives concluded that the three core mental qualities, mindfulness, selflessness, and compassion, should be invested in (Hougaard & Carter, 2018).

As leaders return to the workplace, they want to flourish and support others in developing an organizational capacity for resilience, mindfulness, and wellness. Mindfulness training programs are coming into organizations where people train weekly to integrate mindfulness skills into their daily lives. These programs are optional but can be required. An inclusive and sustainable systems approach is a more effective way to increase mindfulness. Mindfulness is introduced as a life skill that sustains a healthy lifestyle, professionally and personally. Once established, the system approach was more far-reaching with benefits and was sustainable over time. (Levey & Levey, 2018). Baminiwatta and Solangaarachchi (2021) examined mindfulness research over the last 55 years. They found that two-thirds of the total body of literature was produced over the last five years and the rate is likely to keep rising.

Resilience to Overcome VUCA

Masten and Reed (2002, p.75) defined resiliency as a "class of phenomena characterized by patterns of positive adaptation in the context of significant adversity or risk." Luthans et al. (2006) viewed resilience as a reactive approach in that leaders could find ways to be resilient as a reaction to a positive or negative event. Fredrickson et al. (2003) believed repeated exposure to pre- and post-trauma to positive emotions might help strengthen resilience. Strategies to build resilience are using positive emotions,

strategies using self-enhancement, strategies using attribution, and strategies using hardiness, but none addressed the VUCA world (Luthans et al., 2006).

Breen (2017) reported that resilience is a skill set that can be learned to resist the challenges associated with the VUCA world. Werner (1982) defined resilience as the ability to remain positive in adverse situations, constructively engage in challenges, and integrate faith and values into thinking. Breen (2017) pointed out that the opposite of resilience is defeatism, with a negative attitude and avoidance attitude when challenged with problems. This does not empower us as leaders. Daily life and high stress do require resilience, and volatile situations create adversity from which we grow.

As we learn from life's lessons, we develop resilience. It all starts with what is going on in your head, and when the negative outweighs the positive, we focus on the negative. Time constraints can provide excuses, as can negative colleagues if nothing is done about it. A leader must ask the question, where is the negativity coming from? What does behavior tell you? Facing adversity will build strength and resilience. You must focus on the positive. Positive psychology was built on focusing on what the right, the positive, is (Seligman, 2002).

A cognitive approach to building resilience associated with positive psychology is psychological capital which includes thinking, feeling, and behavioral processes (Breen, 2017). There are four components: hope, optimism, resilience, and self-efficacy. Snyder (2002) defined hope as understanding both the will and the way and seeing the pathway toward goal achievement. Seligman (2002) developed optimism as a cognitive process to realistically view challenges and logically assess and problem-solve. Resilience has been

discussed and is the ability to work through a challenge and become stronger. Self-efficacy is knowing what you want and believing you will do it. The four components cannot be broken apart to achieve psychological capital. They must all be developed; reflection is one of the most robust tools to build leadership capacity and resilience (Valli, 1997).

There are six primary forms of active reflection. Anticipatory reflection is used in anticipation of an event before it occurs. This prepares the leader's mind for what potential adversity could occur. In-the-moment reflection is used to develop a plan to calm ourselves. When you feel stress or muscle tension, breathing is the best reaction. Taking slow breaths and breathing deeply will change your heart rate. The body will calm down immediately if your breath and heart rate are coherent. When leaders face complex problems or much uncertainty in a situation, technical reflection is helpful for leaders. Talking with peers, tapping into other people's knowledge and experiences, or consulting with experts builds the capacity for resilience.

Personalistic reflection is used in times of ambiguity when we doubt ourselves and lose the context of the situation. The leader can ask themselves questions that connect them to their inner workings, and clarity can be obtained. When leaders do not have enough information for decision-making, deliberative reflection, looking at the knowledge of all the internal and external stakeholders, gives the leader an empowering knowledge base. Critical reflection considers the situation's social, ethical, and political aspects. This is the most complex form of reflection that can be achieved by asking more profound questions that can change daily in the VUCA world. Through reflection, we can

reframe our thoughts and see the situation differently, learn from mistakes, and be more conscious of the needs of others. A new way of thinking can lead to a new way of thinking about leadership from the shared leadership perspective.

The significant difference between leaders who resist change in a VUCA environment and those who embrace the situation's complexity is resilience. Reflecting on your strengths and weaknesses and asking yourself the hard questions will promote growth. Appreciating your personal well-being with proper diet, exercise, social support, and meditation will empower leadership capabilities.

Summary

An overview of VUCA and how it emerged from the military to the corporate world explained the evolution from the early 90s to the present day. The BPS model referred to the interactions between biology, psychology, and sociology to understand health and illness and provided the context for stress, anxiety, and physical health to be understood.

The business impact of VUCA was examined to develop effective strategies. The VUCA environment necessitated a shift in leadership paradigms and human resource management practices. The BPS model recognized employee health and well-being to prevent stress and burnout. Employee engagement and retention were noted for the importance of retaining talented employees and keeping productivity and motivation high. Leadership theories and styles provided insight to understand what is applicable in the VUCA environment. Transformational leadership, situational awareness, and servant

leadership were looked at in depth with research supporting the applicability in the

VUCA environment.

Decision-making criticality considered decision-making and critical thinking

intertwined and examines different factors that impact decision-making. Leadership

development was recognized as a critical component for VUCA success, and best

practices are identified emphasizing the importance of agility, communication, and

behavioral strategies that influence the organizational leader's decision-making skills.

Chapter 3 provides the rationale for the research design, the methodology, issues of

trustworthiness, and ethical procedures.

Conclusion

The VUCA world has taught us how quickly things change and how obsolete skill

sets and processes become in a complex and uncertain world. Organizations have become

flatter, and continuous learning is necessary for continued growth. Technology is an

enabler and a disruptor. The 21st-century organizational leader needs to be adaptable to a

new environment, with the agility to respond quickly and be comfortable with ambiguity.

Self-awareness and openness to change, collaboration and communication across

functions are required skills. The emotional well-being of employees, who are an

organization's greatest asset, plays a significant role in the success of the organization.

Peter Drucker has acknowledged the danger in turbulent times comes when using

outdated data and yesterday's logic.

Chapter 3: Research Method

This IPA study was conducted to explore the overall lived experiences of organizational leaders in the crisis decision-making process in a VUCA business environment. Chapter 3 covers the research design and rationale, the role of the researcher, methodology, instrumentation, data analysis plan, issues of trustworthiness, and ethical considerations.

The three research questions were the following: What are the lived experiences of organizational leaders utilizing critical thinking with decision-making in a VUCA business environment? What are the lived experiences of organizational leaders applying situational awareness with crisis decision-making in a VUCA business environment? What are the lived experiences of organizational leaders that relate to agility with crisis decision-making in a VUCA business environment?

Alase (2017) reported that leaders' experiences that mattered to them should be captured. The intent was to understand the meaning and impact of the life event that happened to the person having the experience and how they made sense of it in their personal and social worlds (Smith et al., 2009). The study spanned business sectors and diversity factors.

Research Design

The IPA research design was selected to help provide a more prosperous and deeper understanding of crisis decision-making in a VUCA phenomenon. IPA is rooted in phenomenology, a philosophical perspective that examines the structure of conscious experience and how individuals interpret and give meaning to their experiences.

Theoretically, IPA is guided by phenomenological, hermeneutic, and idiographic components. Phenomenology provided the framework for understanding conscious experience. Hermeneutics guided the interpretive process of understanding and interpretation. The idiographic approach aligned with this study with the idiographic component focusing on an in-depth understanding of individual experiences for case-by-case analysis. The advantage of IPA was that it concerns participants' subjective reports, not the formulation of objective accounts (Flowers et al., 1999). Using IPA, I aimed to capture rich and detailed accounts of participants' experiences, emotions, thoughts, and meanings attributed to experiences. I viewed IPA as a "participant-oriented" qualitative approach that showed respect and sensitivity to the participant's lived experiences (Alase, 2017).

One of the critical principles of IPA was the emphasis on the researcher's reflexivity, acknowledging that the researcher's perspectives and biases influence the interpretation of data. There are issues around reflectivity in all qualitative approaches, and IPA recognized the interpretative angle and addressed this issue (Brocki & Wearden, 2006). I used IPA to interpret and dialog with the participants' narratives to develop an understanding of the sense-making processes within the context of the participants' lives. IPA focused on uncovering participants' subjective and lived experiences and emphasized my interpretation of these experiences.

New terminology has evolved to make critical terms reflect precisely what they do. Smith and Nizza (2021) expected that both old and new will be used in the next few

years, but in this study, the standard terminology was adapted when looking at the themes. Consistent, recurring, and emergent themes were used in this study.

Interpretive Phenomenological Analysis and Lived Experiences

IPA is an experiential qualitative methodology that involves attempting to get at the personal lived experiences of participants and how they make sense of what is happening to them (Smith & Nizza, 2021). Experimental methods were used to explore human experience from the perspective of those with the experience. The goal was to get as close as possible to participants' lived experiences and understand how they made sense of the experience (Smith & Nizza, 2022).

Researchers using IPA recognize that individuals have unique perspectives and subjective interpretations of their experiences. Therefore, they use IPA to capture and analyze these lived experiences thoroughly. By engaging with participants' narratives, I revealed rich descriptions of their experiences, emotions, and sense-making processes. The emphasis was on understanding how organizational leaders interpret and give meaning to their experiences. I developed themes by engaging with participants' narratives, the detailed descriptions of their experiences, emotions, and sense-making processes expressed in their own words.

The idiographic approach was valuable for understanding the lived experiences and subjective interpretations of organizational leaders facing decision-making in a crisis. Smith et al. (2009) acknowledged modern-day minds in the IPA approach and shared the view that humans are sense-making creatures. The idiographic approach explores the meaning participants attach to a crisis, the impact on their lives, and the personal

significance they attribute to their decisions. This approach provides a deeper understanding of how people make sense of their experiences, their unique perspectives, and the personal significance they attribute to different aspects of their lives.

Decision-Making Process

IPA was a valuable approach for understanding the lived experiences and subjective interpretations of individuals facing decision-making in a crisis. IPA was useful for examining complex, ambiguous, and emotionally laden topics (Smith & Osborn, 2015). IPA delved into the emotional dimensions of decision-making in a crisis and explored individuals' biopsychosocial reactions. It was helpful in examining individuals' emotional responses, such as fear, anxiety, uncertainty, or resilience, and how these emotions influenced their decision-making processes.

Using IPA, I explored individuals' cognitive and behavioral processes during crisis decision-making and considered the different components of critical thinking, such as information gathering, risk assessment, problem-solving strategies, and how people react in crisis decision-making under high-stress situations. IPA was helpful because it enabled the participants to fully describe their experience (Smith & Osborne, 2015). IPA requires a high level of interviewer skill—a combination of empathy and listening skills, ready to probe into essential aspects. The way I talked to and engaged participants was critical because the quality of the analysis depended on the data provided by the participants (Smith & Nizza, 2021).

IPA helped identify the personal and contextual factors that shaped the participants' decision-making in a crisis. The BPS model is a philosophy and a

conceptual framework that supported understanding participants' moods, personalities, beliefs, experiences, social support, and cultural backgrounds, influencing their decision-making processes (Kassie et al., 2021). The BPS model gave insight into how leaders managed uncertainty, adapted to volatile circumstances, and strove to maintain resilience in crisis decision-making.

A crisis often presents organizational leaders with ethical or moral dilemmas in decision-making. The VUCA business environment challenged leaders to follow ethical practices, values, and organizational culture in decision-making (Justin & Koteswari, 2018). IPA may be used to examine participants' moral reasoning and value systems, as well as how they navigate the complexities of decision-making when faced with ethical challenges. Business ethics reflect the broader perspective of organizational practices. Employing IPA produced a deeper understanding of the subjective experiences, interpretations, and sense-making processes of leaders facing decision-making challenges in a crisis. This qualitative approach enabled me to delve into intricacies and unique differences in decision-making, providing valuable insights into crisis management.

Role of the Researcher

Alase (2017) stated that the role of a qualitative researcher is to investigate and interpret the "lived experiences" of the research participants. Creswell (2013) took the role further, stating that the researcher should consider all study aspects and anticipate problems. Smith et al. (2009) viewed IPA as a tool that looks to expand its capacity. My role as the researcher in this study was to act as the facilitator of the research process. To plan the study, formulate research questions, and select suitable data collection methods,

I maintained a neutral stance with no personal or professional connections to the participants, ensuring that our interactions did not raise any ethical concerns. While no incentives were offered for participation in the study, a Starbucks gift card valued at $25.00 was provided as a thank-you for participants' time.

I played a vital role in the data collection instrument, particularly during the interviews. Conducting compelling interviews involved more than just asking questions; it entailed gathering quotes from participants, validating them, and interpreting their significance (Patton, 2014). I adhered to ethical guidelines, obtained informed consent from participants, and ensured confidentiality and privacy throughout the research process.

One of the critical roles of a qualitative researcher is to establish rapport and build a trusting relationship with research participants (Merriam & Tidsell, 2015). Creating a comfortable and nonjudgmental atmosphere was crucial to encourage participants to share their experiences openly. The relationship between me and the participants was characterized by neutrality, with neither party assuming a dominant role. I fostered this environment by demonstrating empathy, active listening skills, and cultural sensitivity, motivating participants to share their authentic stories. During the data collection phase, which included conducting interviews, I checked members. In the data analysis stage, I also took time for reflection, aiming to recognize any potential biases that could impact the research process, including the sampling strategy and recruitment methods, which were used to maintain the credibility and relevance of the study.

The data analysis process was rigorous, involving organization, coding, identification of themes, and connection of themes to the participants' real-life experiences. As I identified these themes and patterns, there was a deliberate effort to consider the broader social constructs that influenced the participants' experiences, in line with the BPS conceptual framework employed in this study. As a researcher in this study, I continuously practiced reflexivity to capture the participant's lived experience as closely as possible (Smith & Nizza, 2022). I had very few personal expectations for this study; the primary goal was to offer a comprehensive understanding of a leader's personal experiences, providing valuable insights for organizations during their decision-making processes in times of crisis.

Methodology

I selected the IPA methodology to investigate crisis decision-making within the VUCA phenomenon because it aligned with the research questions and the specific purpose of the study, which was to gain a deep understanding of the lived experiences of organizational leaders in relation to crisis decision-making and its impact on organizational performance. I aimed to provide in-depth and rich descriptions, explorations, and understandings of the organizational leaders' lived experience of crisis decision-making (Gaus, 2017). To explore this process thoroughly, three research questions were formulated using "what" to provide a descriptive interpretation of the phenomena considering the psychological and social impact of the crisis.

A summary of the research approach is presented in Figure 1, outlining the sequential steps undertaken. These steps include participant selection, the development of

the interview guide with semi structured interview questions and implementing sampling

procedures. Data collection involved scheduling and conducting interviews, a review, and

an analysis case by case to determine that appropriate data saturation had occurred (Smith

& Nizza, 2022). The data analysis encompassed several stages: transcribing the

interviews, generating emergent statements specific to each participant, employing a

clustering process, reflecting on the analysis, and ultimately deriving themes from the

data. Smith and Nizza (2022) described clustering as utilizing emergent themes with each

statement on a separate piece of paper.

Figure 1

Flowchart Displaying the Research Approach for the Study

Research Design	Qualitative
Research Approach	Interpretative Phenomenology
Methodology	Participant Information-Inclusion/Exclusion
	Informed Consent
	Interview Guide - Researcher Developed
	Sampling Procedures
Methodology - Data Collection	Interview Preparation/Scheduling
	Interviews Conducted
	Analyze Case by Case
	Assess Data Saturation
Methodology - Data Analysis	Transcription Process
	Formulate Emerging Statements
	Clustering Process
	Researcher's Reflection
Methodology - Findings	Themes

Participant Selection

Participant selection is a crucial aspect of qualitative research when investigating and interpreting the "lived experiences" of research participants. Ensuring that the participants selected provide rich and relevant insights into the phenomenon being researched required thoughtful consideration and critical considerations regarding participant selection in qualitative studies (Morse, 1994). The research questions and objectives were straightforward to help identify the specific organizational leaders whose experiences were relevant to the research topic. The business industry that each participant represented was specified in the interview process to provide clarity on their experience.

Participants were recruited through LinkedIn. Participants were not excluded based on age, gender, sexual orientation, or race/ethnicity but were excluded for not meeting the 5-year leadership requirement. The intent was to gather a diverse group of 15 to 20 leaders with different perspectives that would improve problem-solving and lead to better approaches for a given problem (Freeman & Huang, 2014). The organizational leaders were interviewed for their ability to provide meaningful insights and perspectives on context-specific settings (Cypress, 2015). With the diversity of experiences that the leaders offered and the size of the participant pool, data saturation was met but not exceeded.

The study employed purposeful sampling, as I deliberately selected participants based on specific criteria to achieve diversity. Purposeful sampling ensured that the selected participants had firsthand experiences and knowledge relevant to the research

objectives and represented a sampling of race, gender, and age. Inclusion and exclusion criteria based on the research question and objectives were clearly defined to identify participants who could contribute effectively to the study. Inclusion criteria specified the characteristics and experiences that organizational leaders needed to possess to be eligible for the study. The criteria included a minimum of 5 years in a business leadership role as a decision maker in a VUCA environment during a crisis that impacted the whole organization. Business leadership roles were defined by the level of decision-making that affected the entire business.

The recruitment strategy included using LinkedIn to respond to professional networks and diverse corporate leaders across various industries. All selected candidates for the interview experienced crisis decision-making as a challenge in a VUCA environment. COVID-19 affected business sectors differently, with decision-making ranging from life or death in the healthcare industry to short-term survival in the hospitality industry. COVID-19 affected the stock market performance globally, forcing companies to transform for sustainability or bankruptcy. COVID-19 affected the supply chain for management and production companies. Recruitment efforts for the study did not result in too few participants; thus, Walden University's research pool of candidates was unnecessary.

Ethical guidelines and principles were adhered to, ensuring the privacy and confidentiality of participants, and safeguarding their identities and personal information. Ethical considerations included respecting participants' autonomy, minimizing harm, and addressing potential power imbalances between myself and the participants.

Instrumentation

I developed an Interview Guide with semi structured interview questions. The interviews were conducted as a freely developing conversation where the participants were encouraged to talk about their perspectives on life experiences and the crisis decision-making process (George, 2023). The intent was for me to obtain detailed and in-depth information from each participant as the principal data collection tool. Yoon and Uliassi (2022) view the "researcher as instrument" as a complex concept because it consider the researchers' unique identities that influence the interpretation and presentation of the data. I engaged in a continuous process of self-reflexivity at all stages of the qualitative research process as a method of self-analysis that ensured the quality of the data interpretation. The Interview Guide included closing the interview and providing participants with the opportunity to ask questions to understand their role in the process.

The interviews conducted were recorded on Zoom for transcription and then to be analyzed by me. Interviews lasted approximately sixty minutes and all interviews were conducted within a 45-day time frame. The interview allowed me to explore participants' subjective experiences, how they interpreted them, and their meanings in a flexible but focused manner (Smith & Nizza, 2022). By using prompts and allowing for free flow in the conversation, the participants expressed their thoughts and experiences in their own words. This participant-centered approach allowed the organizational leaders to share their personal experiences and recognize their importance as contributors to the research process. Additionally, the dialogue enhanced the quality of the data from the research interview (McCrory & O'Donnell, 2016).

Data Collection Process

Creswell (2013) reported that in a phenomenological study, collecting information involved in-depth interviews with ten or more individuals, and the critical point was describing the phenomenon's meaning. Collecting and analyzing data was tedious and reviewing with the Institutional Review Board (IRB) was the first step in the process. The semi structured interview was the primary data collection tool and offered flexibility to explore different aspects of the participant's experiences. I probed for clarity to gain a more comprehensive understanding of the participant's experiences to include the context and background information. Understanding the contextual factors, the sociocultural, interpersonal, or environmental influences contributed to a richer interpretation of the data. The expanded dialogue between me and the participant helped to discover additional depth. The semi structured interview process allowed for reflection and enabled me to identify participants' subjectivity. The interview preparation was critical, and an interview checklist was prepared before the interview to provide the foundation between me and the participant (Whiting, 2008).

Three research questions guided the development of the Interview Guide and the questions utilized in the semi structured interview process. The study sought to answer the question: What are the lived experiences of organizational leaders with crisis decision-making in a VUCA business environment? As I researched more deeply into the literature review, it became clear that there are additional factors that have a significant influence on the process of making decisions during a crisis.

The research encompassed three distinct yet interconnected questions. The first research question, "What are the lived experiences of organizational leaders utilizing critical thinking with crisis decision-making in a VUCA business environment?" explored the lived experiences of organizational leaders who employed critical thinking in their decision-making processes during crisis (Ramakrishnan, 2021). Critical thinking as a subset of decision-making plays a pivotal role in navigating the complexities of a VUCA environment. Ramakrishnan (2021) recognized the importance of strong relationships in the VUCA environment, which causes confusion and chaos for leaders.

The second research question, "What are the lived experiences of organizational leaders applying situational awareness with crisis decision-making in a VUCA business environment?" delved into the real-life experiences of organizational leaders in terms of applying situational awareness when making decisions during crisis in a VUCA business environment. Ramakrishnan (2021) underscored the need for leaders in VUCA settings to cultivate agile leadership and resilient learning, making situational awareness a crucial aspect of their decision-making toolkit.

The third research question, "What are the lived experiences of organizational leaders that relate to agility with crisis decision-making in a VUCA business environment?" sought to understand the lived experiences of organizational leaders regarding their agility in making decisions during crisis within a VUCA business environment. Ramakrishnan (2021) stated that for leaders to excel in a VUCA environment, leaders need agile leadership and resilient learning.

Probing questions were used to seek more information or clarity on a point raised if the participant did not provide detailed responses. Prompting questions maintained the interview flow and ensured that the key issues were addressed (Whiting, 2008). The open-ended probing questions did not direct the participants in any specific direction while reflecting their true feelings (Warren & Karner, 2005). Bernard (2013) identified different types of probing techniques helpful for reflection. One approach involved remaining silent and allowing the participant to vocalize their thoughts while also showing engagement by verbally acknowledging agreement with phrases such as 'yes' or 'okay' in response to the participant's sharing.

Data Analysis Plan

I became familiar with the data and engaged in watching, listening, and reading the recorded interviews multiple times to understand the content entirely. According to Smith and Nizza (2022), reading through the transcript at least once is good practice while listening to the recording and recording initial reactions in the text. I looked for similarities, differences, and contradictions in the participant's words. The transcripts were read multiple times, and new notes were added as new insights developed (Smith & Nizza, 2022).

Smith et al. (2009) differentiated between the types of notes: descriptive, linguistic, and conceptual, which helped me think more deeply about the transcript. Descriptive notes are introductory notes that summarize the explicit meaning of what the participants said, thought, and experienced. Linguistic notes are interesting, as are laughter, hesitations, and tone used to shape the interpretation. For example, a false start

could indicate something the participant found difficult to express (Smith & Nizza, 2022). Linguistic notes were used to carefully analyze the content of what was said and how it was expressed. Conceptual comments reflect the participant's understanding of what was discussed and give insight into the participant's standpoint.

Emerging themes, or experiential statements, capture what emerges as essential to the participant, considering the psychological and social context revealed by the participant's response. Open coding was utilized to generate the codes based on the data's patterns, themes, and concepts. The intent was to identify recurring ideas, emotions, or experiences participants express. I incorporated the participants' own words and allowed their voices to shine through, enriching the descriptions, adding depth to the content. Formulating the emerging themes was an iterative process that was refined and revised to accurately reflect the participants' lived experiences. Member checking was used to validate the accuracy of what each participant reported during the interview process. With IPA research, we were interested in what matters to participants and what it meant to them (Larkin & Thompson, 2011).

I clustered information to synthesize the data and identify a cohesive structure that connected various sections of the transcripts (Smith & Nizza, 2022). Using separate pieces of paper for each statement facilitated the ability to rearrange them, revealing connections between them. Although repetition could arise during the clustering process, the paper method also aided me in identifying necessary organizational modifications. Clustering served as a valuable tool for me to comprehend extensive qualitative data, pinpointing shared themes or disparities among various data segments.

Issues of Trustworthiness

Qualitative research is subjective and uniquely related to human experience, with data narrated and storied, bringing about issues of trustworthiness that are of critical importance when researching and interpreting participants' lived experiences (Stahl & King, 2020). In qualitative approaches, the four criteria are credibility, transferability, dependability, and confirmability (Guba, 1981). The trustworthiness of the research was a shared responsibility between the readers and writer who needed to find commonality (Stahl & King, 2020). Qualitative research does not aim for replicability. With qualitative research, the focus must be on the richness and appropriateness of the data. When the data was analyzed, it provided enough evidence to answer the research question (Stenfors et al., 2020).

Credibility

Errors in the participants' responses threaten a study's credibility because it lacked personal experience (Kirk & Miller, 1986). Krefting (1991) reported that in qualitative research, the truth value, or accuracy, of a study could be compromised by the close relationship that often forms between the researcher and the participants. While necessary for establishing credibility, this relationship may threaten the study's objectivity. In research focused on participants' experiences, building rapport and trust was essential to fostering openness and honesty in their responses. This study's credibility, which refers to its believability and authenticity, was improved through member checking. This process involved verifying the interpretations of the data with the participants themselves. Additionally, using direct quotes from participants helped to substantiate my

interpretation. Stahl and King (2020) viewed credibility as a measure of how congruent the findings were with reality.

Transferability

Transferability defined how the findings were applied or generalized to other contexts or populations (Kyngäs et al., 2020). While qualitative research aimed for in-depth understanding rather than generalizability, transferability was still relevant in demonstrating the applicability of findings beyond the immediate research context. To enhance transferability, I provided a detailed description of the research context, participants, and data collection methods that demonstrated the rigor with which the study was conducted (Stahl & King, 2020). Purposive sampling allowed me to select highly knowledgeable participants about the topic being studied, enhancing the transferability of the research findings (Schutt, 2006).

Dependability

Dependability referred to the stability of findings over time (Bitsch, 2005). Gaus (2017) defined dependability as the consistency of research methods and findings that would be replicated. Krefting (1991) stated that repeated observation of the same event enhanced stability over time and across different contexts. I ensured that the research process and procedures were documented and transparent. Detailed documentation of data collection, analysis, and interpretation methods allowed for the potential replication of the study by other researchers. Maintaining an audit trail, engaging in peer debriefing, and member checking contributed to the dependability of the findings.

Confirmability

Confirmability referred to the objectivity and neutrality of the research findings. In the Guba 1981 model, neutrality was a primary technique for establishing confirmability along with the audit strategy. Stahl and King (2020) reported that an objective reality must be present when subjecting research to an audit.

As a qualitative researcher, it was essential to acknowledge and address my personal biases and preconceptions that could influence the interpretation of data. By adopting reflexive practices, like maintaining a reflective journal and soliciting feedback from colleagues I was able to reduce biases and improve the confirmability of the study. I also clearly documented the decision-making process, allowing for scrutiny and evaluation by others.

Ethical Procedures

Walden University worked with students to guide the ethical considerations in the research study and protected the participants through the IRB. To secure IRB approval, the university assigned a reviewer to the committee responsible for evaluating and authorizing the proposed study. I was required to secure informed consent from all participants, safeguard their confidentiality and privacy, and guarantee anonymity when reporting the study's findings.

Ethical guidelines and principles were followed throughout the research process, including recruitment, data collection, analysis, and interpretation. The trustworthiness of the qualitative study was judged by its sensitivity to ethical issues, which involved ensuring the study adhered to accepted standards of practice and reflected ethical

considerations in its conduct (Rallis & Rossman, 2009). Being an ethical researcher requires vigilance throughout the entire research study in crisis decision-making. Adhering to proper data storage, dissemination, and access procedures was crucial for protecting the anonymity of participants and the confidentiality of the data. Proper procedures formed the basis of respecting the ethical considerations in the study.

Summary

Chapter 3 discussed the study's research design, approach, participant selection, methodology, and trustworthiness issues. The qualitative research design was selected for improved understanding of the phenomenon of interest. Studies integrating the concepts VUCA, and the BPS model needed contextual support to thoroughly comprehend the underlying theoretical assumptions, philosophies, and practical aspects. Contextual support was crucial for understanding the opinions and worldviews shaping organizational leaders' decision-making experiences during a crisis. IPA was identified as the most appropriate research approach to address the research questions and fulfill this study's objectives. This approach enabled me to incorporate context into the data collection process. A section discussing the selection of research participants outlined the criteria used for their recruitment, including their organizational position and business sector, to demonstrate how they aligned with this study's goals. The systematic arrangement of data collection and analysis laid a solid foundation for this study's trustworthiness, thereby enhancing its credibility, transferability, and dependability. The chapter concluded with an examination of the study's ethicality and the procedures

employed, ensuring its confirmability. The results of this study were explained in Chapter

4 with discussion, conclusion, and recommendations in Chapter 5.

Chapter 4: Results

Organizations across various sectors continually face the challenge of navigating through crises. Leaders in authoritative positions within large and small businesses are responsible for understanding, handling, and mitigating crises to ensure that their companies remain resilient and thrive. They must also manage employees' well-being and how the public perceives their company in the rapidly changing and unpredictable VUCA world. As a result, organizations must constantly contend with a wide array of internal and external crises that can threaten their reputation, their operations, and even their very existence.

An unexpected crisis can arise anytime, from economic downturns and global pandemics to technological disruptions and political upheavals. Effective leader strategies and environment demands the ability to anticipate potential crises, develop robust risk mitigation strategies, and respond decisively when crises inevitably occur. Leaders must foster a culture of resilience within their organizations, where employees are empowered and prepared to adapt effectively and with agility in times of crisis. This proactive approach ensures a company's survival and positions it for continued achievement in an environment where change is the only constant.

This study, utilizing IPA, was conducted to delve into the comprehensive personal experiences of organizational leaders as they direct decision-making during a crisis within a VUCA business environment. The research focused on understanding how these leaders perceive, are affected by, and respond to the challenges of making critical decisions amidst today's business world's unpredictable and complex conditions. The

research explored three related questions about leaders' experiences in a VUCA business environment:

• What are the lived experiences of organizational leaders utilizing critical thinking with crisis decision-making in a VUCA business environment?

• What are the lived experiences of organizational leaders applying situational awareness with crisis decision-making in a VUCA business environment?

• What are the lived experiences of organizational leaders that relate to agility with crisis decision-making in a VUCA business environment?

The first question addressed how organizational leaders used critical thinking for decision-making during a crisis. According to Ramakrishnan (2021), critical thinking is essential for dealing with the confusion and chaos in a VUCA environment, highlighting the importance of solid relationships for leaders.

The second question addressed the role of situational awareness in leaders' decision-making processes during a crisis. Ramakrishnan (2021) emphasized that situational awareness is vital for leaders to develop agile leadership and resilience, enabling them to navigate the complexities of a VUCA environment effectively.

The third question addressed the agility of organizational leaders in making decisions during a crisis. Ramakrishnan (2021) suggested that to succeed in a VUCA environment, leaders must exhibit agile leadership and foster resilient learning, demonstrating the significance of agility in their decision-making capabilities.

Pilot Study

The pilot study conducted in this research project was centered around refining

my skills as an interviewer and optimizing the flow for conducting future interviews. The

pilot study involved a female mid-50s test subject recruited from LinkedIn. Through the

pilot study, I aimed to streamline the interview process, improve question formulation,

and provide Zoom recording and transcript management experience. The pilot study

ensured a seamless and efficient interview process for future candidates. An adequately

organized pilot study did improve research quality (Malmqvist et al., 2019). The pilot

participant signed informed consent, and the semi structured interview was conducted in

a Zoom meeting where the interview questions were reviewed. The flow was optimized

to increase the comprehensiveness of the purpose of the study. The questions posed

during the pilot study were positively received, affirming both the relevance and

appropriateness of the content as well as the effectiveness of the research environment.

The research setting was carefully designed to be comfortable and free from judgment,

which was crucial in encouraging participants to share their experiences openly. This

validation of the questions and the environment underscored their suitability for eliciting

genuine and insightful responses, which was essential for the objectives of this study.

Research Setting

I conducted 19 semi structured interviews over a 60-minute Zoom call that was

scheduled around the participants' availability with my goal to be empathetic and a good

listener while being sensitive to any cultural differences to ensure that they shared their

stories from their perspective. All participants met the criteria outlined in Chapter 3: a

minimum of 5 years in a business leadership role, as a decision-maker, in a VUCA

environment, and in a crisis that impacted the whole organization. There were no

exclusion criteria. All participants held leadership positions with an average of 30.4 years

of experience in various industries and crises.

In the individual research environment, the participants reported varying internal,

external, or both pressures that influenced some of the participants' experiences. An

example was the manufacturing industry, offering different scenarios with different levels

of pressure experienced around diverse crises. For example, Participant 3, a president in

the firearms industry, went through a product recall. However, after continued

restructuring and financial investment, the company did not survive the crisis, and the

leader felt a personal loss. For Participant 2, a plant general manager in the

manufacturing industry, the plant was shut down. Still, the internal and external stress

was absorbed by corporate headquarters, and the local manufacturing organization was

spared the external pressure, dealing only with the internal pressure placed on itself.

Upon successfully reopening the plant, the leader was transferred to another job at a

different location. For Participant 5, a medical manufacturing founder, a defective

product put the organization in an 8-month time frame with no revenue and operating

expense covered by personal investment from the owner, with the primary source of

pressure being external around securing another supplier and restoring cash flow. Her

values guided the decision-making process, reducing the internal pressure, with all

employees continuing to be paid 100%.

Demographics

The demographic data was obtained at the beginning of the interview to provide

descriptive context and gain an understanding of participant diversity. The total number

of active participants was 16. Participants defined themselves as 37.5% female, 12.5%

undefined, and 50% male, with an average of approximately 30 years of leadership

experience. The average age of the female leader was approximately 63.8 years, the

average age of the undefined was 70, and the average age of the male leader was 55.1

years. The population had 14 Caucasian, one Hispanic, and one Black participant. The

military/first responder category was the most populated, with the manufacturing and

medical industries following. The remaining seven industries were comparable and

offered comparisons.

Table 1

Demographics of Participants

Participant	Age	Race	Sex	Industry	Years of Experience	Crisis
P1	55	C	F	Entertainment	30	LA Riot
P2	62	H	M	Manufacturing	30	Plant shutdown
P3	56	C	M	Manufacturing	30	Product recall
P4	58	C	F	Technology	27	Major business loss
P5	66	C	F	Manufacturing	37	Product defect
P6	64	C	F	Nursing psych unit	25	Mental health
P7	63	C	U	Religion	25	COVID-19
P8	56	C	M	Military	30	Defense
P9	53	C	M	First responder	20	Natural disaster
P10	69	C	F	Military	30	COVID-19
P11	57	C	M	Fitness	30	COVID-19
P12	77	C	U	Hospitality	30	Crime
P13	56	C	M	Military	35	War
P14	61	C	M	Airline	43	Air traffic safety
P15	40	B	M	Professional athlete	20	Mental health
P16	71	C	F	Medical	45	COVID-19

Data Collection

After receiving IRB approval, I followed the data collection process stated in Chapter 3. I collected data from 19 business leaders working in different industries in the United States. Three business leaders were excluded from the study because saturation had been met, and the industries were not homogenous to those included. The 16 interviews used in the study produced valuable data to answer the three research questions comprehensively. Data was collected via Zoom; the visual component was not recorded to protect anonymity and promote transparency. Each participant selected a confidential location, and the semi structured interview was conducted based on availability.

An audio recording was captured and transcribed in Zoom, with each interview lasting approximately 60 minutes. Field notes were utilized to capture linguistic results where the participants expressed hesitation, slight laughter, or a change in their tone of voice without being able to view body language. Each data collection point was seamless, with no open points requiring explanation. I was interested in what mattered to the participants and what the crisis experience meant to them, with member checking done throughout the interview. Member checking was done by asking for confirmation of what I had heard or using probes to get more information. If additional clarification was needed during data analysis, it was agreed that I would email the participant. All participants were asked if they would like to see a transcript of the interview, and they declined, noting that they would be interested in seeing the final study. The audio

transcript was emailed to each participant for review to ensure that the data was

dependable. The participants indicated no corrections.

The data was collected narratively with an easy ongoing conversation between me

and the participant utilizing the interview guide (see Appendix A). The demographic

information obtained is in Table 1. The 12 interview questions were designed to answer

the three research questions and uncover new insights. The interview questions were as

follows:

1.   Can you describe the specific crisis you faced as a leader?

2.   How do you describe your work environment before the crisis?

3.   How did you first become aware of the situation? Were you aware of what was

        happening around you (situational analysis)?

4.   How did you ensure you had a clear and accurate situational awareness

        throughout the crisis?

5.   What were the key challenges you identified early on that would require a timely

        decision?

6.   Can you describe a particularly tough decision you had to make in the crisis?

        Were there any mentors or advisors you turned to for guidance?

7.   What critical thinking skills did you use to assess the complexity and potential

        impact of the crisis?

8.   What were the main leadership principles or criteria that guided your decisions?

9.   How did you use agility to adapt or change your strategy when things did not go as planned?

10.   Were there moments when you doubted your decisions? How did you handle that self-doubt?

11.   How did you manage the emotional and mental stress of leading during such a challenging time? And did it affect you physically?

12.   What were the reactions of others to the stressfulness of the environment? Physical or mental or emotional or a combination?

A thank you note was mailed confidentially to the business address on LinkedIn with a $25.00 Starbucks gift card. If the address was unavailable, I used an email to thank them for their time with a shareable link for the gift card.

Data Analysis

Qualitative data analysis is generally described as a nonlinear, iterative process, and thematic analysis serves as a foundation to make sense of qualitative datasets aimed at identifying patterns (Lester et al., 2020). For this study, thematic analysis was used to analyze the data.

The data analysis involved a structured three-phase approach applied on a case-by-case basis. This process started with relistening to the audio recordings of the interviews, followed by reading the written transcriptions to spot any meaningful inconsistencies. Descriptive notes were then added to the text to summarize key points. The aim was to identify similarities and differences in the data, allowing information grouping to reveal underlying connections. This review process was repeated, concluding

Phase 1, with a total of 13 clusters identified as follows: information reliance, communication strategy, emotional/mental regulation, culture, decision-making process, situational awareness, internal/external pressures, collaboration, and team dynamics, learning and agility, decision-making constraints, decision-making consequences, leadership style and role, and risk perception and assessment.

The identified clusters within the written transcripts were highlighted and reviewed in the second phase. These clusters were analyzed both as standalone elements and within the context of the entire interview, achieved by revisiting the audio recordings. Open coding was then initiated, allowing for the creation of codes that captured the recurring ideas, emotions, or experiences shared by the participants. After three independent reviews of the audio and the transcribed data with notes, the following recurring themes were identified in the data: teamwork, decision-making constraints, and communication strategy.

In Phase 3, the experimental statements, or emerging themes, evolved from the clusters and were verified when listening to the audio transcript and reading the transcript together to ensure that the participant's words were used to add depth to the descriptions. The emerging themes were focused on how crisis decision-making affected the physical, mental, and emotional health of the leader within the organization, relating to the BPS model that served as a framework for the study. The three phases were a continual process that occurred over 12 weeks.

Reflexivity was used continually to identify the authentic lived experience of the participants. Olmos-Vega et al. (2023) published *A Practical Guide to Reflexivity in*

Qualitative Research: AMEE Guide No. 149, which served as a manual for me to self-consciously critique, appraise, and evaluate the subjectivity and context influence in the research processes. The objective was to ensure that reflexivity within the research would be multilevel, encompassing personal, interpersonal, and contextual dimensions. This approach aimed at fostering a deep understanding of how my beliefs and experiences, interactions with participants, and the broader research environment influenced the study. By doing so, I aimed to achieve a comprehensive insight into all factors affecting the research process and outcome.

Evidence of Trustworthiness

How trustworthiness is defined has been debated going back to Lincoln and Guba (1985), who contended that trustworthiness should be evaluated by looking at credibility, transferability, dependability, and confirmability. Adler (2022) maintained that the most critical aspect of trustworthiness is transparency, with the specific research techniques being spelled out and the theoretical framework and methodology evident. Dodgson (2019) theorized that reflexivity should be used to minimize the researcher's bias, making trustworthiness more apparent. To establish trustworthiness in the study, a systematic methodology was meticulously adhered to throughout the study. This process began with an in-depth familiarization with the collected data, which set the foundation for the subsequent analysis. From there, the data were organized into clusters based on shared characteristics, facilitating the generation of specific codes. These codes were instrumental in identifying key themes and patterns within the data. As the analysis progressed, emerging themes were identified and developed, further enriching the study's

findings. This structured approach ensured a comprehensive and reliable data analysis, contributing to the credibility of the research findings.

Credibility

Credibility relies on individual perception and is highly subjective regarding whether the findings are accurate and correct. The researcher's credibility can be a consideration in the believability and authenticity of the research study. Credibility refers to the degree to which data collected in a research study can be trusted, relied upon, and considered valid or truthful. Credibility is essential in research and data collection because it ensures that the information gathered was accurate and can be used to draw meaningful conclusions. (Cope, 2014).

A three-phase systematic approach was employed to enhance the study's credibility, incorporating audio recordings, written transcripts, and a combined review of both elements. This methodical process was designed to ensure the integrity and reliability of the data collected. During the first phase, audio recordings of interviews were meticulously reviewed to capture the initial impressions and nuances of participants' responses. The second phase involved a detailed examination of the written transcripts to identify and clarify any discrepancies or insights that might have been overlooked during the audio review. In the third phase, a combined analysis of both audio and written materials was conducted to cross-verify the information and ensure a comprehensive understanding of the data.

Additionally, significant emphasis was placed on reflecting upon and prioritizing the aspects that participants identified as most important. This reflective practice was

integral to acknowledging the participants' perspectives, further solidifying the study's credibility by ensuring that the findings were grounded in the participants' actual experiences and viewpoints.

Transferability

Transferability refers to how the study results can be generalized and how applicable the results would be in other contexts. Transferability includes how research findings can be applied to different groups, situations, and settings (Korstjens & Moser, 2018). The research methodology was adhered to as outlined in Chapter 3. The data collection intentionally included a diverse group of participants with an average of 30 years of experience from different industries, including a Fortune 500 executive, an entrepreneur, a city fire captain, a military officer, a professional athlete, and a reverend. All participants come from diverse ethical, religious, and educational backgrounds to enhance the potential transferability to leaders of many different capacities, making the findings applicable across different industries. I consistently followed the interview protocol following the Interview Guide and introduced clear definitions to establish a common language and understanding of the study's key concepts. Despite these efforts, it was important to acknowledge, as Marshall and Rossman (2014) noted, that the decision regarding the transferability of the research findings ultimately rests with the reader.

Transferability in this study was addressed through detailed descriptions and contextualization of the research setting, participants, and methodology, allowing others to evaluate the applicability of the findings to different contexts. By providing rich, thick descriptions of the data and the processes involved in gathering and analyzing it, the

study enabled readers to understand the subtleties and specifics of the research environment. This comprehensive detailing ensured that other researchers or practitioners can gauge the relevance and potential applicability of the study's outcomes to their settings or situations. The intention behind emphasizing transferability was not to claim universal applicability but to offer insights that may resonate or be adapted in similar contexts, contributing to the broader field of knowledge. This study's findings were positioned as potentially valuable for those seeking to apply its insights to comparable scenarios with an understanding of the limits and conditions under which they were generated.

Dependability

An extensive review of the audio and written transcript data was conducted to ensure that the findings were consistent and repeatable. I conducted a pilot study to assess the methodology's suitability for participant engagement. The audio transcript was emailed to each participant to ensure the reliability of the data. The dependability of the data within the framework of the IPA study holds profound significance because it shares the deeply lived experience of the participants (Hinderks et al., 2019). The fundamental principles of IPA included valuing the participant's perspective, recognizing the importance of contextual factors that shaped their experiences, and remaining open-minded about their unique experiences.

Ensuring dependability in this research involved implementing a transparent methodological approach, enabling the replication of the study under similar conditions. By documenting the research process, from data collection methods to analytical

procedures, this study provided a comprehensive roadmap for future researchers to follow. The level of detail underscored the reliability of the findings and reinforced the study's contribution to the field, as it allowed for the potential for further exploration. The commitment to dependability reflected a dedication to research integrity, offering a foundation upon which the credibility and utility of the study's conclusions rest. As such, dependability was not just a methodological consideration but a cornerstone of the research's value, ensuring its findings are trustworthy and a meaningful addition to existing knowledge.

Confirmability

Confirmability is the degree to which participants and the context shape the findings of a qualitative study, not the researcher's bias or preconceptions (Treharne & Riggs, 2015). By cross-referencing data with public service records, product recall reports, and coverage of crisis events indexed in search engines, the potential for bias, misinformation, and inaccuracies in the data was minimized. Member checking was done as part of the data collection process and continued in the data analysis by emailing participants a summary of how their responses were represented in the study. This step was taken to reinforce that the findings are not solely my interpretation and validated by the participants.

In this study, confirmability was rigorously pursued through transparent and objective documentation of the research process, ensuring that the findings are rooted in the data and not my subjective bias. The objectivity was achieved by employing strategies such as maintaining a detailed audit trail, engaging in reflexive journaling, and

seeking feedback from peers and participants. These measures allowed for a critical examination of the research decisions and interpretations, offered a clear path for others to follow and evaluated the research process and outcomes. The emphasis on confirmability reinforced the study's integrity, demonstrating that the conclusions drawn accurately represent the participants' experiences and insights. As a result, confirmability strengthened the study's credibility, ensuring that its contributions to the field were reliable and valuable and can be confidently referenced or built upon in future research.

Study Results

The VUCA model provided the first conceptual framework. Volatility changed the business, economic, and social environment. A highly volatile environment needs a strategic approach focusing on teamwork, agility, and communication. Uncertainty occurs in unstable environments with too much information or a lack of information about the crisis. According to the Cambridge Dictionary, complexity referred to having numerous interconnected parts and being challenging to comprehend or solve. Anything is rarely crystal clear in today's world, and the actual message can be ambiguous when lost in an overload of data. The cost of mistakes in a VUCA world was deadly (Popescu et al., 2022). Organizational leaders in the 21st century must accept the chaos, adapt to uncertainties, and deal with ambiguity. The BPS model provided the second conceptual framework for understanding crisis's impact on leaders and followers in stressful situations. Crises often require urgent and decisive action, which can have far-reaching consequences if not managed effectively. Crises demand immediate attention and swift action.

The purpose of the IPA study was to examine the effect of decision-making in crisis on physical, emotional, and mental health by combining the VUCA and BPS models. The crisis can severely and negatively impact stakeholders, including customers, employees, shareholders, and the public. The research questions that guided the study to examine how organizational leaders experienced decision-making in a crisis had three subsets focusing on the role that critical thinking, situational awareness, and agility played in the decision-making process. This section answers the three research questions and highlights the three recurring themes: teamwork, decision-making constraints, and communication, and the three emerging themes: emotional, mental, and physical health, as they relate to crisis decision-making.

Research Question 1

What are the lived experiences of organizational leaders utilizing critical thinking with crisis decision-making in a VUCA business environment? Fourteen out of the sixteen participants interviewed addressed the need for critical thinking. Two participants reacted to the immediacy of the crisis in the survival state. Critical thinking was viewed in several ways relevant to the nature of the crisis. The most prevailing response started with data analysis. Participant 3, president of firearms industry, faced a product recall. He aimed to develop a hypothesis and undertake thoughtful, analytical work to validate or invalidate it. Participant 9, a city fire chief, and Participant 15, a former NFL player, stressed the importance of prioritizing information. Participant 5, a medical manufacturing founder, had experienced a defective product, was heavy on research, and then would prioritize the next steps.

Participant 2, a plant general manager manufacturing leader who moved to a new plant following a shutdown due to contamination, stressed the significance of critical thinking. He stressed the ability to prioritize tasks and maintain continuous dialogue throughout the organization, with a key emphasis on listening as the cornerstone of the communication strategy. Before the crisis, collaboration and team dynamics were evident within a cohesive and robust team comprising subject matter experts. These individuals had built strong bonds of trust over time and shared a common concern regarding the plant's reputation for production. However, this cohesion led to decision-making constraints, as decisions tended to revolve around team dynamics. He stated, "The team needs to know how what we learned today affects what we should do tomorrow, and what is expected of them, and that their input and observations inform what we do next. It is not just me making decisions; it is informed decision-making." He said that you must be able to ask tough questions and be critical of the data you see because the data alone does not tell the whole story. The lesson accentuated the importance of examining information comprehensively within its context, integrating disparate data sources, and drawing upon intuition and experience to inform decision-making.

Participants 7 and 16, both in a COVID-19 crisis, stressed the importance of being present for critical thinking. Participant 16, optometrist and practice founder, stated, "We were in totally uncharted water, a wilderness, and to decide and be able to move with it, you must be present at the moment. Being present and available is part of the communication strategy with the motto, be safe and be ready for tomorrow." Both staff and patient safety were paramount. The eye healthcare profession necessitated a

significant degree of physical involvement. Physical proximity concerns were paramount, particularly given the extensive utilization of high-touch equipment. These considerations significantly influenced the decision-making process, particularly considering the risks posed by COVID-19, an airborne disease.

Participant 7 was a reverend for a spiritual center with congregation comprised of the LGBTQ population who had health concerns with end-of-life consequences pre-dating COVID-19. As a reverend, being able to respond to hospital visits had been a critical part of his job. When the pandemic restricted hospital access to family and friends, the isolation reinforced the need he felt to be present for his congregation both in and out of the hospital. He stated, "My core critical thinking foundational skills and beliefs never changed. It is important to be present for people to the best of my ability."

Participant 13, Senior Marine Officer, reported, "For over 30 years, I made my living with a gun protecting this country, and when in a crisis, I would check how I am responding, how I take the Intel, to override fear and use critical thinking and process the information." He used a formula: E plus R equals O. The external event (E) plus the response (R) equals the outcome (O). The participant understood that while he cannot dictate the outcome of a situation, he had the power to control his own responses and reactions. He recognized the distinction between what is within his sphere of influence—namely, thoughts and actions—and external events which are beyond control. This awareness enabled him to focus the energy on managing their own behavior rather than becoming overwhelmed by external circumstances.

In a crisis, Participant 13, Senior Marine Officer, found that followers look to leaders who control themselves and their emotions in a crisis. To assess the complexity and the potential impact of the crisis, he developed a method called CRAP - clarity, relevance, accuracy, and precision. Clarity involves clearly defining the target and the objectives one aims to achieve. Relevance questioned whether the actions undertaken contribute to the overall mission or goal. Accuracy pertained to ensuring that information and evidence align with the factual truth. Perception is how a person interprets the situation which becomes their truth. Emotional reactions often stem from this perceived truth. For Participant 13, the final step in their critical thinking process involved questioning whether the presented facts can be made more precise. He stated, "If you do not take the time to clarify what your target is, then you are like that feather on Forest Gump, just getting blown around."

Participant 10, a Commanding Army Officer, stated, "I utilized more critical thinking skills because the stakes were higher in many crises, and the impacts may be broader because of national security implications. You always have a heightened awareness of the second and third-order effects. You must be able to think through what else might happen regardless of which way you choose." The participant noted that one of her bosses had a poster in the office outlining five priorities. This poster guided where individuals fit within the organization and how they could contribute. Such clarity facilitated the effective execution of tasks and responsibilities. "Everyone starts out learning the same thing, all of the basics, the sense of patriotism with the common goals, I protect and defend, there is a sense of community and teamwork."

Critical thinking became a central focus in reviewing all participants' encounters. The emphasis on critical thinking harmonized with the principles outlined by the U.S. National Council for Excellence in Critical Thinking. The overarching objectives of these interactions were multifaceted. They aimed to elucidate the standards underpinning high-quality thinking, emphasizing the criteria by which effective reasoning and analysis are evaluated. There was a concerted effort to disseminate pertinent information that assists individuals in discerning instances of robust critical thinking, which involved equipping participants with tools and frameworks to identify and evaluate the strengths and weaknesses of various arguments and perspectives. The discussions stressed the intrinsic connection between knowledge acquisition and applying critical thinking skills. Recognizing this relationship emphasized leveraging acquired knowledge to enhance one's critical thinking ability and make informed decisions. The comprehensive exploration of critical thinking within these encounters fostered a deeper understanding of its significance in various contexts. It underscored its role in promoting sound reasoning and informed decision-making in a crisis (The Foundation for Critical Thinking, n.d.).

Research Question 2

What are the lived experiences of organizational leaders applying situational awareness with crisis decision-making in a VUCA business environment?

Endsley (1995) introduced the concept of situational awareness (SA) as the process through which an individual perceives and understands their immediate environment. This involved recognizing the present conditions and comprehending their

significance within a broader context. SA is further described as the ability to project the potential future states of the environment, allowing individuals to anticipate changes and adapt their actions accordingly. This definition highlighted the multifaceted nature of situational awareness, emphasizing perception, comprehension, and projection as its core components.

In this study involving 16 participants, the responses to questions related to situational awareness consistently aligned with Endsley's definition. Each participant demonstrated a clear perception of their surroundings, an understanding of the situation's current state, and an ability to infer its future developments. Their actions and decisions reflected a deep engagement with SA, showcasing their ability to integrate perception, comprehension, and projection in real-time decision-making. Alignment between theoretical definitions and practical applications underscored the relevance and applicability of Endsley's framework in understanding how individuals navigate and respond to complex environments.

Participant 9, a City Fire Chief, described the importance of SA at the beginning of the crisis. "Calls come in from the dispatch center or through the 911 system, and based on the amount of information received, the appropriate resources are dispatched, and sometimes there is minimal or incorrect information. We must stay ahead of the crisis and react properly to what we see with our own eyes. We call it a "size-up" done during the crisis making a personal size-up. Everyone should be doing a personal size-up independently because everyone has a different role and needs to understand their role in

the crisis. A formal size up may be broadcast over the radio to dispatch additional resources."

The size-up process was an initial assessment conducted upon arrival at the scene, where fire personnel evaluate the conditions of the fire, the type of structure involved, potential hazards, and any other factors that may impact their response strategy. Through this comprehensive evaluation, firefighters gain clear and accurate information about the incident, forming their SA's basis. This awareness was not static but evolved as the situation unfolds, allowing fire service personnel to continuously adapt or modify their strategy in response to new information or changing conditions. SA within the firefighting context involves an ongoing information-gathering, interpretation, and decision-making process. It enabled firefighters to anticipate potential challenges, make informed decisions, and implement actions most likely to result in successful outcomes. The SA provided by the size-up and subsequent observations ensures that the fire department's strategies are responsive to the immediate realities of the incident, enhancing both the safety of the firefighters and the effectiveness of their operations.

Participant 1, studio manager entertainment industry, was in a management role at a CBS television studio in the center of the Los Angeles riot. There was senior management on site who could not make decisions for the safety of the staff because of their own panic. The news crews were showing rioters coming in that direction; major streets were shut down, and when some people tried to leave, they could not get out of the parking lot.

Although no explicit orders were given for anyone to remain, Participant 1 was requested to stay due to her role in overseeing the food service operations, which included managing a large commissary. Without a defined hierarchy or clear chain of command, the participant proactively assumed leadership. Taking the initiative, the participant stepped forward to manage and control the situation effectively. She would go out to the loading dock and see the city on fire, "I would look, I would scan the skies, see the smoke and fire a pretty good distance away, I could hear the noise, the sirens, the police and then I would go in my office and think." The police and firefighters used the studio as resting grounds where they could be fed and regroup. In recounting the story, "I can still feel shaky listening to the firefighters report that while trying to put out fires, the rioters were throwing cans and bricks at them."

Participant 1 leveraged the insights gathered from police and fire department personnel dining in the commissary to inform her decision-making process during the Los Angeles Riots. The firsthand information obtained from these emergency responders allowed her to understand the severity and dynamics of the situation outside her immediate environment. This knowledge played a crucial role in shaping her analysis and prioritization of actions. With a focus on the essential aspects of the crisis, Participant 1 was able to make informed decisions aimed at safeguarding the well-being of her staff and the diners. Her strategy involved assessing risks, anticipating potential safety threats, and implementing measures to ensure a secure environment amidst the unrest. This approach underscored the importance of effectively using available information in crisis management and decision-making.

Participant 14, international commercial airline pilot captain, had a contrasting perception of SA. The captain made decisions based on a comprehensive understanding of the situation, not just relying on the standard instruments found in the cockpit. This approach involved integrating various sources of information that reflect current events and conditions, which are then used to inform the decision-making process. This information came from the cockpit's instruments, from the entire aviation team. The team included the first officer, flight attendants, air traffic controllers, mechanics, and dispatchers, who may be in different parts of the country. Each member played a crucial role, contributing their unique perspective and expertise to ensure the safety and efficiency of the flight. This collective approach emphasized the importance of teamwork and communication across diverse roles and locations in the aviation industry. When flying for an international airline, the purser is the liaison between the cabin and the cockpit. The captain will monitor communication via intercom; this is how he learns a doctor is needed but does not know why, if someone is going into labor, or if someone is dying. "That is a situation that you must be aware of with 292 passengers on the flight." With an international crew, language can be a barrier. "English is the universal language in aviation, but that does not mean you can understand it." In this scenario, SA was influenced by the diverse perspectives of individuals who perceived and interpreted the crisis uniquely. This diversity led to variations in understanding critical information, as pilots and crew members came from different linguistic and cultural backgrounds. These differences affected their decision-making processes and how they communicated and

prioritized what they considered essential. Despite these differences, the challenge lay in ensuring everyone involved had a clear and shared understanding of the situation.

To address this challenge, SA involved a systematic situation assessment process, which included gathering, analyzing, and effectively communicating information. This process was crucial for making informed decisions, especially in high-stakes environments like aviation, where the safety of passengers and crew was paramount. SA became a dynamic tool that enhanced decision-making by fostering an environment where diverse inputs were recognized and integrated. It ensured that despite varied backgrounds, the team could interpret the situation accurately, respond to evolving conditions, and execute actions informed by a comprehensive scenario view. This approach emphasized the importance of effective communication, cultural sensitivity, and the ability to synthesize information from multiple sources in achieving optimal situational awareness.

Participant 8, First Gulf-War Marine, stated "it is not very quantitative; it is human involvement in a fluid environment that you almost have to acquire through training and experience, that sixth sense to make a decision and do something." SA was defined by Participant 8 as, "you have your view of where you are in time and space and everything else around you and how you fit into it. The closer it is to reality, the better your situational awareness. There is a tremendous amount of training in the military, but the point that no plan survives first contact with the enemy requires SA."

Participant 8 reflected on the implications of training and preparedness, emphasizing the critical nature of adaptability in high-pressure situations. He pointed out

that engaging in combat as one has been trained, while beneficial, harbors a significant risk if the training itself lacks unpredictability. This shortfall became glaringly apparent when faced with unexpected circumstances, leading to panic and a potential breakdown in performance. Participant 8 emphasized the importance of a military leader's mindset, which should be continually attuned to crisis management. Such vigilance ensures that a leader is constantly prepared for the unforeseen, ready to make crucial decisions at a moment's notice. Participant 8 highlighted the indispensable role of what he termed the 'sixth sense'—an intuitive reserve that becomes paramount when navigating the complexities and uncertainties inherent in military operations. This innate ability to sense danger or make split-second judgments was not just an added advantage but a necessary component of a soldier's skill set, enabling them to respond effectively to challenges that lie beyond the scope of conventional training.

Participant 6, a psychiatric nurse who led the closed ward of a Psych unit, stated, "It is built into our awareness that we are looking to make sure we are checking everything to validate that someone has not experienced something a little invisible, being able to be aware of what is going on around you is critical." The importance of ongoing observation of individuals' body language and behavior was highlighted in the context of interacting with individuals who may be experiencing delusions, active psychosis, and are resistant to taking medication. A strategic approach adopted to mediate potential issues involved striving for a gender-balanced team, including both male and female registered nurses and psychiatric technicians, during each shift. This practice

aimed to foster a sense of equilibrium and minimize feelings of paranoia among those being cared for.

The objective was ensuring the safety of all parties involved, with teamwork and effective communication serving as the pillars of a secure environment. SA was used as a tool for evaluating risk and determining the necessary steps to address immediate concerns. This approach incorporated elements of the BPS model, recognizing the complex interplay between biological, psychological, and social factors in managing healthcare situations, especially in psychiatric settings.

The experiences shared by the participants in the study reflected the Endsley 1995 SA Model. The emphasis was on people's active role in obtaining their own SA and their involvement in the process, as well as using the mental model to direct attention to relevant information and gather the needed information (Endsley, 2015). SA was described as influenced by an individual's goals and expectations within their environment and by how environmental alterations impact these objectives. Endsley's work in 2015, along with insights from Participant 8, First Gulf-War Marine, highlighted the critical role of time and space dimensions in understanding SA. The impact of stress and workload on SA was recognized, underscoring the complexity of maintaining awareness in challenging situations.

SA is affected by the person's goals and expectations in the environment and how environmental changes affect the objectives. Since its inception, the concept of SA has gained widespread acceptance and integration into the realm of cognitive crisis management and decision-making. This evolution reflected an understanding that SA is

not static but dynamically responds to the interplay of personal objectives, environmental factors, and the pressures of the moment, thereby influencing the decision-making process during a crisis.

Research Question 3

What are the lived experiences of organizational leaders that relate to agility with crisis decision-making in a VUCA business environment? The literature review examined the pivotal role of agility as a determinant of organizational success in the future (Elali, 2021). This study expanded the concept that agility, adaptability, speed, and innovation constitute objectives for crisis decision-making in a VUCA environment. Prats et al. (2018) discussed how a contemporary approach to agility necessitated a degree of flexibility and openness to re-evaluate previous decisions and change as needed.

The participants of this study exhibited critical attributes for their personal development and resilience as a strategic need for the organization's survival and growth. I investigated how people in organizations utilize agility and adaptability to achieve competitive advantage and operational excellence. My research shed light on the profound effect of agility on individual and organizational performance, demonstrating that the ability to innovate and respond quickly to changes is crucial for sustained success in a VUCA business environment.

Participant 11, fitness studio owner, reported that what he faced during the COVID-19 crisis, the state restrictions taking the decision-making authority away from him left him in an ambiguous state. His state enforced stricter restrictions compared to neighboring states, and the state's poor communication contributed significantly to the

uncertainty. Facing a landscape where information changed daily, he was forced to shut his business and suspend all in-person training activities. This move came amid growing uncertainty, further deepened when the county issued paper warnings on his doors with legal repercussions should he decide to persist with his business activities. Amidst this turmoil, he was thrust into a crisis, having to navigate through constantly evolving regulations and the looming possibility of punitive actions. At the same time, he had to focus on supporting his staff, securing his livelihood, and safeguarding his mental well-being, all of which demanded resilience and adaptability in the face of unprecedented challenges. "The state was about to close everything down, and it was surreal. I did not believe it, and I stayed open, but people just quit showing up. People were scared." He was asking himself if people would come if he could reopen. "The state was clear about the close-down, but it was more ambiguous about reopening." He had a family to support and could not get the PPD loan, limiting his options. He reported, "I was in my head and had to reprogram my thinking not to be so negative with what had happened to us. The change had to come from within."

He began to look at different services he could offer to promote martial arts and fitness classes. He used social media to attract different clientele willing to work out from home. He partnered with other professionals in the community to integrate martial arts into personal safety programs for employees working from home. He partnered with other fitness professionals with different credentials to increase the online traffic and learned new skills to expand the programs he was offering. His agility created the change needed to ensure the future success of the business.

Participant 7, the reverend of the LGBTQ congregation, had the platform of delivering face-to-face meetings but was denied because of the COVID-19 crisis. The closing of his facility by the state government created a sad, isolating time for him and his congregation. "Many of them were elderly with high medical risks from a disease perspective, and life became very, very, challenging for them. I could not be with them in person. As I locked the doors to the building, the question, how do we do service, was foremost in my mind. How do I provide continuity of connection, inspiration, and the feeling that they were there for each other?"

With a background in facilitating training over Zoom, and being very familiar with the technology, he dove into creating multimedia presentations. Online worship was a radical turn for the older population unfamiliar with using technology. Zoom was cumbersome and complex, requiring a device and Wi-Fi, with members struggling just to turn on the microphone. Recognizing that a one-dimensional format would not sustain engagement with the congregation, multimedia slides were utilized through Apple to incorporate segments where music played in the background, and animations kept the community engaged. The interactive approach ensured that the congregation was not merely staring at a static face on a screen. The dynamic presentation stimulated and maintained a stronger connection with the audience by offering a more immersive and visually engaging experience. "The time of service became more exciting and provided a spiritual exploration that served the existing members and grew new members. As a spiritual leader, you are constantly adapting and readapting to what is going on and bringing ourselves back into alignment." Adaptability led to agility for the reverend and

with his commitment to growing new members and keeping the existing congregation attentive an engaged in service he permanently switched to a schedule offering one in person service and three online each month.

Participant 10, Commanding Army Officer, discussed that decisions are more uniformly accepted because of rank, which gives you the authority to conduct your business in a certain way. "What matters as much as following orders is being able to give them and being able to have something that sets you apart from your peers, whether you want to call that inspiration, or agility or vision, knowing where we should go and how we should do it provides the variance that makes others want to follow you." Geiger et al. 2020 reported that many military organizations have a renewed focus on agility.

Teece et al. (2016) examined agility as a three-step process: sensing, seizing, and transforming. Participant 10 had the magnitude of rank providing the opportunity to sense, seize, and transform. Sensing involved synthesizing processes and ideas, a critical function that entailed understanding and integrating operational and strategic elements. Within the Department of Defense (DoD), this process included the effective use of trained personnel, a well-maintained stockpile of equipment, and the strategic leveraging of alliances. Seizing refers to creating new systems and methodologies.

In the context of Teece et al. (2013) work, transforming referred to the organization's ability to reconfigure its assets and structures to adapt to changing environments, capitalize on new opportunities, and maintain competitive advantage. DoD transforming was intrinsically linked to maintaining a strategic edge in a global-security crisis environment.

By continuously adapting the DoD systems and processes to incorporate emerging technologies and innovations, the DoD exemplified how transforming enables an organization to reconfigure its operational capabilities. Through this dynamic capability, the DoD was able to sustain its strategic superiority, ensuring that it remains prepared to fulfill its mission in an unpredictable and complex global landscape.

Participant 12, investment manager hospitality group, discovered that her partner had embezzled one million dollars. She found out about the embezzlement through a phone call from her bank, which requested her presence at 9 a.m. the following morning and asked her to bring detailed financial statements that were up to date. She discovered that her partner, whom she also considered a trusted friend, had committed a white-collar crime. As a result, she found herself held accountable by 35 other stakeholders for her partner's actions.

While she was seeking legal recourse, the District Attorney confirmed that the money had indeed been stolen and identified the thief. Her choice to prioritize the stakeholders above all else stemmed from a deep sense of responsibility and integrity. "I knew we were screwed and that I would have to fight alone." She took decisive action and ultimately reimbursed all affected parties in full, thereby restoring their financial positions at great personal cost. "At this point, there was no trust in anybody, and I lived the crisis, slept it, and drank it. I felt these 35 people were involved ethically because of my word."

Driven by a strong ethical conviction, Participant 12 believed her duty was to compensate the affected individuals, as she felt responsible for their initial involvement.

Taking on full responsibility for her partner's illegal action resulted in significant

personal loss, leaving her and her family, which included three teenagers, without a

home. Despite these severe difficulties, she kept herself updated on every detail of the

unfolding situation, maintaining a thorough and precise grasp of events. This ordeal

taught her the vital role of agility in managing unforeseen adversities. "You must

communicate, and that is the good, bad, and ugly; do not keep it all in. You must let

people know things are not going well and keep your head in your business. You must

see what is going on in the environment, wiggle your nose in the air, and see if a change

in the air is happening."

Moving forward, she took the innovative step of creating her advisory board. This

board, composed of experienced professionals from various fields, gave her the insights

and perspectives to chart a new course. With their assistance, she began to lay down the

foundational steps for rebuilding her life and career. "When people get into trouble in

crisis, you need to find out how others have handled their crisis and need an advisory

board." She could grow from the experience, embrace agility, and find new ways to cope,

and rebuild. In the recovery of personal and financial losses, agility involves the ability to

adapt and respond to changing circumstances with resilience.

Participant 4, a technology director for online sales for a Fortune 500 company,

had been moved to work with a different sales team and a difficult Fortune 500 customer.

"There was a lack of clarity around the roles and how to stay within the roles, and the

customer was demanding. The customer was treating us unprofessionally, and the team

felt there was gender bias and anger issues." Psychological safety had become very

important to senior leadership, and they told Participant 4 that the team was unhappy. They were feeling chaotic, and she needed to change her leadership approach. "My first reaction was to flee, quit, and go. This was ridiculous; I did not care about a lot of those things, and now it was front and center as part of my job responsibility."

After building strong customer relationships for 25 years, she encountered a team considering disbandment and a crucial customer who seemed to have the upper hand. To address these challenges, she prioritized open communication with her team, organizing regular meetings to foster an environment where team members could candidly discuss their interactions and strategize ways to progress. As trust developed within the team, it became clear that broader dynamics needed to be addressed. Both her company and the customer highly valued inclusion and respect. Consequently, the customer appreciated the open and constructive feedback, leading to improvement, and the team was willing to change. Once Participant 4 understood the direction she needed to take, she made a fundamental transformation to become more agile and "wanted others to know it is okay not to be okay, and it is okay to escalate if you need to." This experience served as a valuable lesson for the organization, leading to an initiative to educate other teams on managing and safeguarding psychological safety for both employees and customers at the individual and organizational levels.

Participant 15, former NFL player, firmly believed in the concept of "pivot" as a cornerstone of leadership, whether on the sports field or in the business arena. He articulated that "pivot" is indispensable, explaining, "It is inevitable; there may be times when you are working on something, and it does not unfold as you have planned." In

such moments, he explained, one must identify the immediate priorities to facilitate the next step, make decisive moves, and pivoting which requires a physical and mental shift in focus towards the new direction. He emphasized the necessity of adapting both mind and body to the changes the pivot demands. To clarify the term, Merriam-Webster described a pivot as a shaft or pin around which something rotates, highlighting its fundamental role in facilitating change or adjustment.

The story of Participant 15, with his emphasis on the concept of pivot in leadership, resonated when applied to the high-stakes environment of playing in an NFL championship game. In this context, the pivot embodied agility—an essential trait for navigating the multifaceted crisis of winning the game, upholding the team's reputation, satisfying sponsors, and meeting fans' expectations worldwide.

During an NFL championship, the pressure intensified, not just from the physical competition on the field but also from the awareness of being scrutinized by millions of viewers globally. Every decision made in these moments, every strategic shift or tactical pivot, was magnified by the collective anticipation of fans, the hopes of teammates, and the interests of sponsors watching every play unfold in real time. The athlete's ability to pivot—adapting strategies, changing plays based on the opponent's actions, or even overcoming unexpected setbacks—became a testament to their leadership and agility.

This agility was not just a physical demand to move or react swiftly; it required a mental readiness to assess situations rapidly, anticipate outcomes, and make split-second decisions that can alter the course of the game. The mental pivot, akin to the physical,

demanded a leader who can maintain composure, focus, and determination amidst the crescendo of a championship's pressure.

The narrative of Participant 15's belief in the power of the pivot thus became a metaphor for the broader challenges faced in a championship scenario. His belief highlighted how agility—manifested through the ability to pivot effectively—can be the difference between victory and defeat, satisfaction, and disappointment, and ultimately, between fulfilling and falling short of the collective aspirations of fans, sponsors, and teammates. This physical and mental agility enabled athletes to navigate crises that arise in high-pressure moments, embodying the essence of leadership on the global stage of professional sports.

Recurring Themes

The three recurring themes were the role of teamwork, the need to understand the decision-making constraints, and the importance of communication strategy. Examples of each have been included in answering the three research questions and will be expanded on here.

Table 2

Recurring Themes

Recurring theme	Examples
Communication	The necessity of communication for agility
	Lack of information on COVID-19 created uncertainty
	In crisis, one must communicate everything, the good, bad, and ugly
	Team communication to build trust
	The key to communication is listening
	Communication was standard operating procedures, roundtables, biweekly lunches
	Communication used to manage stress
	Communicating with the team enhances the team
Decision-making constraints	State restrictions mandated closing business
	Had to reprogram my thinking for less negative with the change coming from within
	Team dynamics—decisions around teams
	The sixth sense is a necessary reserve.
	We do not prosecute this white-collar crime.
	Doctor's orders are on top, and nurses are next.
Teamwork	Team members may spread out across the country, but all have a role to play.
	The goal to protect everybody, teamwork, and communication laid the safety foundation.
	In the military, teamwork can mean the difference between life and death.
	Team changes due to staffing crises are a considerable variable in the successful resolution of an incident.
	The sense of community starts at the lowest level.
	As a team worked together, celebrated little victories.

Teamwork

In the military context, teamwork was paramount; it was not merely a principle for efficiency but a critical factor in determining life-or-death outcomes. Participant 8 provided insight into this dynamic as a First Gulf War Marine, emphasizing the concept of distributive operations. This approach involved breaking down the bigger troop formations into smaller, more agile teams or groups that were then deployed from the main body to carry out specific missions. These smaller units operated semi-autonomously, making decisions on the ground based on the immediate situation, consequently requiring high trust, coordination, and mutual support among team members.

This approach emphasized the significance of a deeply ingrained sense of community and leadership cultivated from the ground up within the Marine Corps. Even at the most fundamental level, leadership was instilled in individuals, as evidenced by young Marines who take pride in their roles, confidently stating, "I am the leader of Marines." This declaration was not just about holding a position of authority; it reflected a profound sense of responsibility, as even those who oversaw just two or three fellow Marines were recognized as leaders. This perspective highlighted the Marine Corps' emphasis on leadership development, community building, and teamwork's critical role in ensuring the unit's effectiveness and survival in high-stakes environments.

Such a structure facilitated operational flexibility and responsiveness and fosters a culture of mutual respect, accountability, and collective strength. Regardless of rank, every member was seen as a vital part of the team, with a clear role and shared mission.

This approach ensured that each Marine was prepared to lead, decide, and act decisively for the success of their mission and the safety of their team, embodying the essence of the Marine Corps' commitment to developing leaders who can thrive in challenging situations and make critical decisions under pressure. "You will see young Marines walk around stating I am the leader of Marines because they have two or three Marines they oversee."

The significance of teamwork in securing victory, especially in the intense atmosphere of an NFL Championship game, underscored the limitations of relying solely on individual prowess. Participant 15, former NFL player who champions the concept of adaptability and teamwork, articulated that the essence of triumph lies in the collective ability of a team to collaborate and swiftly adapt to the game's dynamics. He said, "Teamwork wins the game, not just talent alone. Even if you have the most talented and highest-paid players, the team will face defeat if they fail to harmonize and cooperate." In this context, every role on the team, from the quarterback to the defensive line, became critical to achieving a winning performance. Cohesion stemmed from mutual trust, thorough preparation, and a unified dedication to the team's goals.

Beyond the physical execution of plays, teamwork embodied team members' mental and emotional solidarity. The collective resolve and camaraderie fueled a team's ability to rally from behind and conquer adversity, showcasing that a team's strength is indeed more significant than the sum of its members. Such unity was cultivated through shared experiences and aligned ambitions, forging bonds surpassing individual talent's capabilities.

Expanding on the theme of teamwork, Participant 15 revealed how this principle extends beyond the confines of professional sports to influence other areas, including his personal training business. He emphasized that success in any field is predicated on collaborative efforts guided by a shared vision and mutual respect. This collaborative attitude taught that the collective achievements of a team are substantially more significant than what individuals could accomplish on their own. By prioritizing teamwork over personal glory, not only are victories achieved on the football field, but this principle also served as a robust model for success across various industries.

Participant 16, optometrist and practice founder, believed in setting an example for her team. She maintained that if she expected someone to perform a task, she would do it herself. Reflecting on her leadership approach, she recounted, "As a team, we worked together, cleaned rooms and equipment, and celebrated the little victories, having discovered strategies that worked." She emphasized that authentic leadership meant demonstrating dedication to the simplest tasks, proving that no task was too small for anyone if it aided the team's overall success.

Through her active involvement in various tasks, including cleaning rooms and maintaining equipment, Participant 16 demonstrated that leadership transcends mere task delegation; it involves sharing the workload, irrespective of the task's nature. Her philosophy was a reminder that effective teamwork was nurtured in an environment where significant and minor tasks are tackled collectively, without concern for organizational hierarchy. She believed that "every chore, from the mundane to the critical, should be an act of teamwork and not viewed as a slight to anyone's position

within the organization," supporting for a culture of equality and mutual respect where every contribution is valued.

Participant 16's leadership approach underlined the significance of recognizing and celebrating all successes, big or small, to cultivate a positive team spirit and motivate the search for effective strategies. She observed this action elevated morale and solidified team cohesion, showing her team that she valued their combined efforts and the step-by-step progress toward the facility's goals.

Participant 16's actions and beliefs showcased a leadership style prioritizing teamwork over hierarchical differences, promoting a collaborative path to organizational achievement. By leading by example and participating in tasks alongside her team, she reinforced that effective leadership and teamwork hinge on cooperation, shared responsibility, and a joint quest for excellence. This set a standard that nobody was too prestigious to partake in tasks that propel the team's goals forward.

Participant 9, the city fire chief, navigated through daily shifts in team composition, a task compounded by staffing crises, the integration of rookies, and the presence of inexperienced members. The constant change in staffing affected the team dynamics by presenting a unique set of challenges. The trustworthiness and experience level of the team varied significantly from one day to the next. Reflecting on the impact of these changes, he said, "Some days, you have a team you trust, and some you may not. As the leader, this is a huge variable and impacts the successful resolution of the incident."

He explained the critical role of leadership in managing the inherent unpredictability of team capabilities and the direct influence this has on addressing crises effectively. The fire captain's experience highlighted the importance of adaptability and swift judgment, especially in high-pressure situations with high stakes. The variability in team composition meant that he had to quickly assess the strengths and weaknesses of his team on any given day and adjust his strategy accordingly to ensure the safety of both his team and the public.

Participant 9 shed light on the broader challenges faced by leaders in emergency services, where the ability to foster a cohesive and efficient team situation was essential despite the ever-changing roster of team members. He emphasized the necessity for leaders to cultivate an atmosphere of trust and expertise rapidly, leveraging the unique contributions of each team member, whether they are seasoned veterans or recruits.

Participant 9's experiences as a fire captain illustrated the complexities of leading dynamic teams in crisis response scenarios. His ability to navigate the varying team trust levels and experience underscored the critical importance of leadership flexibility, rapid assessment of team capabilities, and strategic decision-making in ensuring successful outcomes amid the uncertainties of a crisis.

Decision-Making Constraints

Participant 6, a psychiatric nurse who led the closed ward of a Psych unit, recounted facing daily constraints in decision-making during the COVID-19 pandemic. She highlighted the significant influence of medical directives, explaining, "the doctor's orders for medication being what makes things happen for the most part." The reliance on

medication as a primary intervention often limits interruptions in care processes. Participant 6 shed light on the choices available to nursing staff within the healthcare hierarchy, stating, "A nurse would have a choice right in front of her or him for an intervention that was nonmedicated, and in the institutional setup, the doctors are on top, nurses are next." This observation reflected the structured nature of decision-making authority within healthcare settings, where doctors typically held the primary decision-making power, followed by nurses.

In discussing nonmedicated interventions, Participant 6 elaborated on alternative strategies to address patient needs. She described a nonmedicated solution as involving a deeper understanding of the situation, efforts to calm the patient, dimming the lights, and utilizing a soothing voice to foster a sense of safety. This approach contrasted sharply with the more confrontational method of physically restraining a patient to administer an injection. Through these reflections, Participant 6 illuminated the challenges and possibilities within healthcare settings during the pandemic, highlighting the tension between medicated interventions mandated by doctors and the potential for nurses to implement a gentler, nonmedicated approach.

Participant 3, president firearms industry, detailed the complexities and challenges faced in managing a high-demand product within a heavily regulated sector. He described how, amidst regulatory compliance requirements for their manufactured firearms, any malfunction became a potential crisis due to the immediacy with which such issues were broadcast on social media. The product had been on the market for six years, undergoing various modifications throughout its lifecycle, and had seen hundreds

of thousands of units sold. Participant 3 characterized it as "a high-performance product that people could tinker with and customize to tune it." However, pinpointing the onset and source of the malfunction proved elusive to the company. Participant 3 said, "It was unclear when the problem emerged and where it originated from."

The allure of negativity on social media meant that any issue with the product quickly captivated public attention, turning minor incidents into viral stories. Participant 3 expressed the company's predicament: "People tend to be excited by and attracted to the negatives, and the stories become viral. We were behind the eight ball without even knowing we had a real problem and the nature of the product." Placed in a reactive position, the company scrambled to address problems that continued to arise.

The challenge was further compounded by the need to navigate the delicate balance between public relations and legal advice, often receiving contradictory recommendations. Internal tension existed between the marketing and sales departments, each with its priorities and interests. Participant 3 described the difficulty of making swift decisions while adhering to regulatory compliance, highlighting the intricate dance of aligning company actions with legal requirements and public expectations.

Participant 3 emphasized the importance of decisive leadership and ethical considerations in navigating these challenges. He said, "Being willing to make the call, break ties, make hard decisions, and operate with ethics and have faith that it will be good for the company and all the people involved, we just had to do that." He shared the necessity of courage and ethical integrity in decision-making processes, even in the face

of potential backlash or controversy, to ensure the company's and its stakeholders' long-term well-being.

Participant 15, former NFL player, said the decision-making constraints during a championship game were intense, immense, and stressful. Players must navigate expectations from various angles: the quarterback demands on-field precision, coaches strategize from the sidelines, owners scrutinize from above with a focus on the team's image and marketability, fans rapidly share their critiques on social media and your decision under pressure make or break the trust of your team members.

The quarterback's expectations set the immediate pace for Participant 15, requiring strict adherence to the game plan. "He calls the play, and you do not get the ball if you do not follow it. It does not matter what you think; you follow the play - hopefully, it is a drill you ran a bunch of times in practice, but sometimes it is not. If it works, you are a hero and score - if not, and it happens a lot, you get cut." Coaches may have differing strategies, pulling you to the sidelines and creating conflict. This tension peaks when coaching disagreements occur, risking Participant 15's standing on the team and among fans.

The NFL owners' considerations added another layer, with Participant 15's potential sponsorships and career prospects hanging in the balance based on performance and public perception. The rapid judgment from fans on social media introduced relentless psychological pressure, where every action is scrutinized in real time. NFL rules and referee decisions further constrain Participant 15's choices. A split-second

misjudgment can lead to penalties, affecting the game's outcome and intensifying scrutiny from all sides.

Participant 15 maneuvered these pressures throughout the game to showcase his skill while contending with the complex expectations and rules. Successes, like scoring a crucial touchdown, were overshadowed by the challenges of managing these constraints, impacting Participant 15's future with the team and in the league. With a family to support his NFL career, Participant 15 explained that his home and personal life also constrained his decisions. NFL players face an intricate decision-making landscape. Performing on the field was just one part of a more extensive, complex set of challenges shaped by internal and external forces.

Communication Strategy

As the CEO of a medical manufacturing company Participant 5 firmly believed that "communication is critical to the whole functioning of the company." She stressed the importance of communication within their operational framework, integrating roundtable discussions and biweekly lunches as standard procedures for fostering open employee dialogue.

The discovery of a significant issue in the outsourced molding process marked a focal moment for the company, leading to "much friction, and we lost eight months of income." This crisis threatened the company's financial stability and raised employee concerns about their job security and the company's future. In response, Participant 5 leveraged communication as a vital tool to manage the growing stress and anxiety within the workforce, aiming to maintain team cohesion in the face of adversity.

The company's communication frequency was substantially increased to address the heightened need for reassurance and transparency. The company organized more formal and informal lunch meetings, allowing for the open sharing of information, and fostering a sense of inclusivity and mutual support among the staff. This strategy ensured that every employee remained informed about the company's efforts to navigate the crisis while it discreetly sought to replace the supplier for the molding.

One of the most significant challenges during this period was finding a new supplier without attracting undue attention or causing further disruption. Participant 5 recognized the importance of keeping the workforce informed enough to maintain their trust and support without divulging sensitive or confidential details that could compromise the company's negotiating position or strategic plans or cause them to leave the company for a more stable position.

Participant 5's commitment to transparent and frequent communication throughout this crisis was vital in stabilizing the company. By keeping employees engaged and informed, they were able to cultivate an environment of solidarity and resilience, enabling the company to handle the crisis with the full support of its workforce. This approach mitigated the immediate impact of the lost income and reinforced the company's underlying strength: a unified team ready to support its leader through challenging times.

Participant 14, serving as an international commercial airline pilot, deeply understood the critical role of communication within the complexities of aviation, especially when faced with a crisis. He recounted an experience of piloting a flight from

New York to Los Angeles, where navigating around severe weather conditions led to a scenario with minimal fuel upon arrival. This crisis stressed the necessity of clear, effective communication within the cockpit and with external entities such as air traffic control. "You are flying from New York to Los Angeles, and there is bad weather that you can go around, but you arrive in Los Angeles with no extra fuel. You have to communicate that to the air traffic controllers so they will give you priority handling." This statement highlighted the urgency and importance of conveying critical information to ensure the safety and priority of the flight in a crisis.

Beyond external communications, Participant 14 emphasized the importance of internal team dynamics and establishing a cohesive team culture, especially before embarking on a flight. As the captain and leader, they prioritized gathering the entire crew before the flight to introduce each member and discuss the flight plan, potential turbulence, and emergency procedures. This pre-flight meeting was not just a briefing but a deliberate effort to "formulate the team culture," ensuring that every crew member was communicated with as part of a unified team equipped to handle any situation.

This approach to communication was instrumental in creating an environment where the crew felt comfortable and relaxed, aware that they could approach their leader with any concerns or questions. By fostering open lines of communication, Participant 14 enhanced the overall effectiveness and readiness of the team, preparing them not just for the expected parts of the journey, but also for any unexpected crisis that might arise. The experience shared by Participant 14 illustrated the role of communication in crisis decision-making within the aviation industry.

A Commanding Army Officer, Participant 10 provided insights into the sophisticated communication strategies critical for military operations, focusing on the layered complexities of the military hierarchy, security clearances, and coded operations in a crisis. "You are told what you need to know on a need-to-know basis identified by your superiors. Those in command." The foundational "need to know" principle governs military communication, ensuring that susceptible information is disseminated selectively based on the personnel's role and security clearance. This method significantly reduces the risk of information leaks, bolstering the security and efficacy of military endeavors in a crisis.

Participant 10 explained the value of the "Keep It Simple, Stupid" (KISS) method. This technique stressed the importance of simplifying messages to their core elements to prevent misunderstandings and errors. In the pressure-laden context of military operations, where swift, accurate decision-making is mandatory, the KISS method's emphasis on straightforward, unambiguous communication was crucial. KISS guarantees that instructions were clear, facilitating rapid comprehension and execution and eliminating the need for time-consuming clarifications in decision-making. The critical role of clarity, brevity, and action-oriented communication in military crisis decision-making was highlighted. Clarity ensured that each team member understands their responsibilities and the mission's goals precisely. Brevity was essential during a crisis, where prolonged explanations can impede urgent responses. Communications were strategically focused on prompting immediate, decisive action.

Using military acronyms was critical to streamline and standardize communication within the armed forces, particularly during crisis decision-making and communication. In high-pressure situations where every second mattered, the ability to convey information quickly and unambiguously can be the difference between success and failure, safety and danger, life, and death. Military acronyms enhanced operational efficiency and clarity among personnel as part of a broader linguistic strategy. "The military alphabet ABC becomes Alpha, Bravo, Charlie because sounds like B, D, E, G, and Z can easily be misunderstood in noisy or stressful environments. The distinctiveness of words like "Alpha" or "Zulu" ensures messages are delivered the first time correctly."

The interview with Participant 10 revealed that military communication strategies were intricately designed to meet the unique requirements of military decision-making. Decision-making includes navigating the complexities of the military hierarchy, where communication flows according to rank and security clearance levels and using coded language in operations to maintain secrecy and security. These strategies ensure that every unit member is adequately informed about their roles within the broader mission context, enabling swift, effective actions in crises. This meticulous approach to communication enhanced the operational efficiency of military actions and strengthened the unity and effectiveness of military units, particularly under the demanding conditions of crisis decision-making.

Emerging Themes

The overall theme that emerged in the data was how the crisis decision-making process in a VUCA environment accelerates stress, creating emotional, mental, and

physical health issues. The stress response is commonly referred to as the "fight-or-flight" response that starts in the brain when the information is sent to the emotional processing center. This amygdala sends a distress signal to the hypothalamus that alerts the autonomic nervous system that controls the body. The adrenal glands start to produce cortisol, a stress hormone that affects almost every organ and tissue in your body, including the nervous, immune, cardiovascular, respiratory, reproductive, and musculoskeletal systems (Cleveland Clinic, 2021).

Stress can impact physical health with high blood pressure, weight changes, high blood sugar, and changes in your circadian rhythm and sleep cycle, as well as keep your brain and body in a high alert state of hyperarousal. This can affect your mental health with anxiety and depression and impact critical decision-making. Restricting stress and negative thought patterns can have positive changes but are unmanageable in the crisis scenarios outlined in the study. Negative thoughts create negative feelings that affect emotional health. Relaxation techniques, physical activity, and emotional support techniques were used to counter stress for some participants. The common theme identified for emotional health was mostly informal mentors, allowing participants to process what was going on and talk about it.

Table 3

Emerging Themes

Emerging theme	Examples
Emotional health	Mentor for emotional stress
	Worry, catastrophe, anxiety, sadness
	Being able to accept feelings and express emotions
	Therapist to manage emotional stress
Mental health	Realization The negativity was in the mind
	Figure out the critical stuff to focus on
	People are afraid and not thinking properly
Physical health	High blood pressure, weight changes, high blood sugar
	Changes in the sleep cycle
	Disease (cancer and heart issues) from stress

Mental Health

During the interviews, all 16 participants acknowledged the impact of mental health to varying extents during the crisis. While a minority of the participants observed the effects on the mental health of others within their organization, the majority reflected on their own personal experiences. I noted that mental health, distinct from general well-being, presented more challenges in recognition among coworkers and team members.

Participant 11, a fitness studio owner, shared a personal revelation about being consumed by his thoughts during the COVID-19 business shutdown. He admitted, "I was in my head," acknowledging the mental barriers that hindered his progress. He realized the necessity of altering his mindset to navigate these challenges and regain confidence in revitalizing his fitness business. To this end, he engaged with motivational podcasts to confront and transform his thought patterns. Additionally, he sought a mentor's guidance and emotional support, which proved instrumental in his journey to start anew.

Self-examination and subsequent action highlighted the struggles with mental health that professionals can face, especially under the pressure of a crisis. Participant 11's story highlighted the personal battle with internal doubts and fears and the proactive steps he took toward mental wellness and professional rejuvenation.

Participant 8, First Gulf War Marine, personal narrative revealed the extreme pressures and unpredictable challenges inherent to military crisis decision-making, where individuals are often subjected to a constant onslaught of stressors outside their control. His strategy for coping with such an environment was characterized by a concerted effort to maintain emotional and mental detachment from these stressors, thereby enabling a focus on critical, actionable tasks.

His approach distinguished between factors he could influence and those beyond his reach, enabling him to allocate his attention and resources toward addressing the most critical objectives. This mindset was crucial in managing fear and confusion, maintaining concentration amid turmoil, and ensuring the team remained united and safe, all while keeping the mission's ultimate objectives clear. This strategy facilitated effective crisis decision-making and played a significant role in supporting his mental health. By focusing on what could be controlled, Participant 8 minimized unnecessary stress and anxiety among his team, contributing to a healthier, more resilient group dynamic. Through the strategic management of attention and resources, this emphasis on mental health highlighted the importance of psychological well-being in achieving success and maintaining team integrity in crisis. The essence of Participant 8's coping mechanism lay

in the capacity to differentiate between the influenceable and the non-influenceable

concentrating efforts on the former to make decisions in crisis with clarity and purpose.

The recounting of Participant 8's experiences illuminated the indispensable role of

mental health, agility, and discipline in military crisis decision-making. It highlighted the

necessity for individuals in such high-stakes situations to possess the mental fortitude to

withstand the pressures of combat, the agility to swiftly determine the most effective

course of action, and the mental well-being to prioritize mission-critical objectives over

immediate emotional responses to stress.

Participant 1, a studio manager in the entertainment industry, reflected on a crisis

where the studio was caught in the middle of the Los Angeles riot, describing the

situation as feeling "like sitting ducks." This vivid imagery showed the vulnerability and

fear of the employees, who were struggling to think clearly under the immense stress of

the situation. Drawing on prior crisis training, Participant 1 took decisive and

authoritative action to take charge of the crisis, aiming to instill a sense of trust and calm

within the team. By doing so, she sought to mitigate the immediate fears and ensure the

employees' physical safety and mental well-being.

Emotional Health

Emotional health is essential to recognize in this study because it involves being

aware of your emotions, accepting those feelings, and using that knowledge in your

situational awareness. By paying attention to your feelings, you will have a different

perspective of the environment. Being able to express emotions can make one more

empathetic and reduce stress.

Emphasis on emotional health was supported by the work of Berking and Wupperman (2012), who argued that emotional regulation and the range of emotions are integral to understanding mental health challenges. Their research suggested that the ability to manage and regulate emotions effectively is a crucial component of crises, with the complexity of mental health going beyond cognitive functioning.

In the context of the riot that Participant 1 and the employees faced, the importance of addressing both mental and emotional health became evident. The fear and anxiety experienced by the employees emphasize the need for leaders to not only make quick and authoritative decisions but also to consider the emotional well-being of those they are leading. Participant 1's actions, influenced by crisis training, illustrate a practical application of these principles, proving the necessity of a holistic approach to crisis that addresses the thinking and emotional factors involved.

Participant 15, former NFL player, discussed the long-term effects of dealing with trauma and its impediment to success, noting, "The more trauma you endure or deal with, the harder it is to have success." His reflection on the continuous exposure to traumatic situations pointed to the need for support and the development of strategies for managing emotional stress. Influenced by his mentors to remain open and receptive to various viewpoints, Participant 15 took significant steps toward addressing and alleviating emotional stress by opting to work with a therapist. Therapy offered him a structured approach to process and modify his emotional reactions to trauma, showing the role emotional health plays in getting through adversity.

Participant 6, who worked as a nurse in an inpatient psychiatric unit, recounted how patient agitation frequently led to tensions among staff members across different levels. To address this, she initiated a support group that met every two to four weeks, facilitated by an independent therapist. This initiative provided a unique platform for the staff to engage in honest communication, where individuals could openly discuss their feelings and reactions to workplace dynamics. "This gave us the unusual opportunity to communicate like a family and call each other out on what was being said and how it made others feel." Participant 6 reflected the airing of grievances and misunderstandings fostered a culture of empathy and mutual support among the staff. The support group helped reduce stress and improved interpersonal relationships within the unit by creating a space where emotions could be expressed and addressed constructively.

Participant 6's experience showed the importance of emotional health not just for the well-being of the staff but also for the overall effectiveness of care provided to patients. By improving the emotional dynamics among the team, the initiative contributed to creating a more supportive and understanding work environment, ultimately benefiting both the caregivers and the recipients of care. This emerging theme of emotional health, as related to crisis decision-making, illustrated the complex interplay between workplace environment, staff well-being, and the quality of patient care.

Participant 7, reverend LGBTQ congregation, shared personal practices that contributed to his well-being and enabled him to support his congregation effectively, especially during the COVID-19 pandemic. He engaged in meditation, spent quality time with his dog, and regularly met with a close-knit group of friends outdoors to fulfill his

need for human connection. These activities provided a foundation for his emotional

resilience, allowing him to be a pillar of support for others.

By sharing these strategies with his congregation, Participant 7 provided insights

for coping mechanisms that others could easily adopt. His emphasis on outdoor activities

as a safe way to interact during the pandemic served as a reminder of the fundamental

human need for connection with each other. This human interaction was particularly

helpful when many traditional means of support and community were disrupted.

The narrative of Participant 7, pointed to a broader understanding of emotional health

management during crises, emphasizing the importance of balance and support through

accessible and safe means. These strategies helped individuals cope with the immediate

challenges of the pandemic but also offered a plan for maintaining emotional resilience in

the face of ongoing uncertainties.

Participant 16, optometrist and practice founder was looking to sell her piece of

the eye healthcare practice and had the bank prepare financial documents for sale on a

Friday. The following Monday, she called the bank to get a line of credit because that is

when the closure of the business started. She went from retirement to survival. "Self-care

was important for me, and I walked my sadness off through COVID-19. I walked so

many miles I broke my foot twice from a stress fracture. I did things to ensure I was not

isolated and got the nurturing and emotional support needed. And we laughed a lot in the

office. Laughter made it easier to cope with difficult situations. It also helped you connect

with other people and improve your mood." There was stress relief from laughter and

growing evidence of positive mood that laughter can create (Mayo Clinic Staff, 2023).

Participant 2, plant general manager, was introduced to a facility that had opened its doors a month prior, where a biological product utilizing recombinant DNA technology was being produced. The production process had come to a standstill due to external contamination affecting every batch produced. With no preconceived notions, he was tasked as an outsider to tackle the issue. Demonstrating patience, he devised a strategy to dissect the production process into segments for simultaneous troubleshooting. The onsite teams appreciated his arrival and the insightful, yet respectful questions he posed, acknowledging the efforts and considerations already made. He stated, "There was a reputational fear among the team responsible for building the plant, concerned about the personal impact on their reputations. Yet, there was an intentional absence of finger-pointing or blame." The corporate Vice President maintained composure, effectively insulating the plant from any external pressures. As a local leader, he was provided autonomy and responsibility, which were crucial in his ability to diagnose and address problems effectively. He mentioned having strategies for stress relief and a supportive family life, which kept him centered on making well-informed decisions. His decision-making philosophy was based on the belief that no one should fear retracting a poor decision to explore alternative solutions. Three months into his tenure, the source of the problem was pinpointed and rectified. Reflecting on the experience, Participant 2 remarked, "I believe it's the internal pressure we imposed on ourselves that was the biggest obstacle." Following the resolution, the facility celebrated its success, with every team member being recognized for their contributions, and some were specifically praised for their expertise.

Emotional health was more about the feelings that arise in a crisis or from a judgment call that needs to be made, shaping decision-making. Lerner et al. (2015) reviewed how emotions can bias decision-making and found that incidental emotions carry over from one situation to the next that is unrelated and occur without awareness. Participant 2 managed the feelings of the team without letting reputational fear impede the decision-making process.

Physical Health

Dr. Bessel van Der Kolk, M.D., authored "*The Body Keeps The Score*," that showed the profound impact of trauma on both the brain and body, demonstrating how these experiences can significantly affect one's physical and mental health. He explored the relationship between the brain and the body, mediated by the autonomic nervous system, which plays a crucial role in regulating unconscious processes essential for survival, such as breathing. This research noted the critical nature of the brain-body connection, emphasizing that trauma is not solely a psychological phenomenon but influences physical well-being in tangible ways.

Participant 12, the investment manager hospitality group, served as an example of Dr. van Der Kolk's findings. Participant 12 endured the loss of her son in an accident, a tragedy compounded by financial turmoil due to embezzlement. During this period of intense emotional and mental distress, her family became her support system, staying up late to wait for her return from numerous meetings. This action expressed their unity and concern, but the cumulative effect of the stresses manifested in Participant 12 when she developed cancer, demonstrating the physical toll that severe emotional and mental stress

can take on the body. Her family's steady support continued through her battle with cancer, addressing not just the physical ramifications of her illness but also the emotional and mental strains associated with her profound losses and financial struggles.

Participant 12's experience clearly illustrated the interconnectedness of emotional well-being, mental stress, and physical health, reflecting the themes explored in Dr. van Der Kolk's research. The research demonstrated how the body can bear the scars of traumatic experiences and stresses, not just in the realm of emotional or psychological health but as physical ailments, and diseases. This reinforced the importance of considering the holistic impact of trauma and stress, advocating for an integrated approach to healing that addresses the complex interplay between the mind and the body.

Participant 4, technology director online sales, shared her experiences, emphasizing the intricate connection between physical health and crisis decision-making. She recounted, "I am not good with stress, so I walk a lot. I try to stop working at the end of the day and get out every day. I try to take care of myself because I know stress led to heart issues for me in the past." This statement highlighted how Participant 4 has recognized the significant impact that stress, particularly from high-pressure environments, can have on one's physical well-being. In response to this realization, she adopted a proactive approach to managing stress through regular physical activity, specifically walking. By setting a clear boundary to end work each day and ensuring she spent time outdoors daily, she tried to reduce the adverse effects of stress. This strategy helped maintain her physical health and improved her capacity for making effective

decisions during crises. She explained that taking care of physical health enhanced decision-making capabilities in the face of challenges.

Participant 10, a Commanding Amy officer, provided insight into the military's comprehensive approach to physical and mental well-being, particularly in crisis decision-making. She explained, "The military places a high premium on physical fitness, the whole person, to keep physically fit, you have the value system that you have faith in, whatever you believe in to give you what you need, spiritually to move along and deal with the stress of what many of these positions are." Her statement shed light on the military's holistic perspective on health, emphasizing the physical aspect and the importance of a strong value system and spiritual faith. This approach was designed to equip individuals with the necessary tools to manage the intense stress associated with their roles. By maintaining a high level of physical fitness, individuals were better prepared to handle the physical demands of their positions. A solid foundation of personal values and beliefs provided the mental and spiritual resilience to face challenging situations. Participant 10's experience illustrated how this comprehensive strategy enhanced an individual's ability to make effective decisions during crises, emphasizing the critical link between well-rounded physical health, mental fortitude, and competency in high-stakes crises.

We don't pay the same attention to mental and emotional health that we do to physical health. If we have shoulder pain, a broken bone, or chronic headaches, we seek treatment. In emotional or mental health issues, there is less perceived urgency if treatment is sought at all. The interplay between physical and mental health has

broadened the overall health perspective, and research continued to link the two to staying healthy. The impact on physical health caused by mental and emotional health is an emerging theme in the study.

This study adopted a perspective that delineates three distinct health emerging themes, physical, mental, and emotional. Dressler (2023) provided a separation between these three aspects, treating them independently yet interconnected factors of overall well-being. According to Dressler (2023), mental health was the overarching framework within which emotional health is nested. Mental health was essential for the effective processing of information, while emotional health plays a critical role in managing and expressing feelings. This distinction pointed out the complexity of human psychology and the importance of considering mental and emotional components to foster holistic well-being.

Berking and Wupperman (2012) explored emotional regulation, which has gained widespread acceptance within the mental health field. They highlighted how emotional regulation—or the lack thereof—played an important role in various psychological conditions. The challenges associated with emotional regulation, such as difficulty in identifying emotions, providing self-support during negative emotional states, and managing emotions effectively, were identified as significant barriers to mental health. These deficits in emotional regulation were implicated in the development and continuation of depression and were also seen as critical factors in anxiety disorders and substance-related issues. Berking and Wupperman (2012) emphasized that the inability to regulate negative emotions can significantly diminish an individual's coping mechanisms,

further complicating the view of mental health disorders. By exploring the realms of emotional and mental health and the complicated relationship between the two this highlighted the importance of comprehensive approaches to treatment that supports the full spectrum of emotional and mental health needs.

Summary

In Chapter 4, I addressed the pilot study, research setting, demographics, data collection, data analysis, evidence of trustworthiness, and the results. The results were derived from 16 interview sessions with organizational leaders across industries in the United States. The results answered the three research questions on how organizational leaders experienced critical thinking, situational awareness, and agility in crisis decision-making. The three recurring themes and three emerging themes from what participants reported were as follows. The three recurring themes reported by participants included teamwork, decision-making constraints, and communication. The three emerging themes participants reported were the influence of the decision-making process in crisis on emotional, mental, and physical health. Chapter 5 includes the interpretation and analysis of the findings, the study's limitations, the recommendations, positive social-change implications, and the conclusion.

Chapter 5: Conclusion

The purpose of this IPA study was to understand the lived experiences of organizational leaders with crisis decision-making in a VUCA environment. Researchers adopting IPA methodology are interested in how participants make sense of what is happening to them and recognize the unique point of view of those having the experience. IPA enables collecting in-depth and comprehensive information, with the participants' quotes reinforcing the context.

The organizational leadership crisis has been studied, but the impact of decision-making in crisis on physical, emotional, and mental health, the BPS model, has not, and that was the focus of this research. The primary research question directing the study asked, "What are the lived experiences of organizational leaders during crisis decision-making?" This question was explored through three specific sub questions to examine leaders' critical thinking, situational awareness, and agility in making decisions in a crisis. The findings included three recurring themes and three emerging themes. The recurring themes were teamwork, decision-making constraints, and communication strategy, introduced in Chapter 2 of the research. The three emerging themes were physical, mental, and emotional health, all relevant to the BPS model. Chapter 5 addresses the interpretation of these findings, study limitations, recommendations, and implications for social change.

Interpretation of Findings

Demographic Observations

Approximately 50% of the participants reported that they had experienced crisis training at some point. While not directly applicable to the crisis discussed, they had a frame of reference from which to react. This education ranged from lifeguard training to military training, first responder training, and nursing school. The degree to which training influenced the themes in the study is undetermined. Another notable demographic was that the leaders had, on average, 30 years of experience. The study findings stress the criticality of teamwork, the perception of decision-making constraints that can influence the process, and the urgent need for communication throughout the decision-making process.

Conceptual Frameworks

Two conceptual frameworks were applied to the study and shaped the interview process: VUCA and the BPS model. VUCA has been a central theme in management research and practice since 2010 and has led to new business models and strategies reflected in both the research and the study findings (Teece, 2016). COVID-19 intensified understanding of VUCA in the workplace globally, with chronic stress affecting overall health worldwide.

The BPS model introduced the concept that physical, mental, and emotional health can be affected in a crisis environment. The BPS model considers the well-being of individuals and the social impact of decisions while encouraging leaders to address the organization's well-being and mental health during the decision-making process. The

findings of this study produce evidence of the value of combining the two models for business leaders to learn from, irrespective of industry or size, to improve decision-making effectiveness.

Leadership Style and Theory

Extensive research was reviewed in Chapter 2, the literature review, examining the role of leadership style and theory in the decision-making process that provided structure for a better understanding of the following interview question from the interview guide: What were the main leadership principles or criteria that guided your decision? Participants frequently responded by pinpointing prominent leadership behavior in their performance.

Participant 4, a technology director of online sales, and Participant 15, a former NFL player, shared that their leadership styles adapted in response to the crisis. This observation aligned with the research discussed in Chapter 2, which explored situational leadership theory. Northouse (2021) stated that leaders must be able to adjust their leadership style to fit the needs and abilities of their followers. Situational leadership addressed four different leadership styles that a leader could use depending on the follower's level of readiness (Hersey et al., 1979). The directing, coaching, supporting, and delegating styles range from followers having low competence and commitment to followers being highly competent and committed. Another variable was the readiness levels of followers, ranging from low readiness, lacking skills, knowledge, or confidence to perform the task, to high readiness, where the follower had the skills, knowledge,

motivation, and confidence to perform the task. The follower's lack of readiness could delay the crisis decision-making.

Participant 13, a Senior Marine Officer, stated that military mental toughness drove his leadership and believed that each situation should dictate his style. Participant 11, a fitness studio owner, reported that COVID-19 was the situation that dictated the crisis and the leadership decision-making. The contingency leadership described in Chapter 2 suggested that leaders understand the specific context and adapt their style to fit the situation (Yukl, 2002). Contingency leadership stresses the importance of flexibility and adaptability in leadership. Participant 8, a Marine from the First Gulf War, believed in the importance of leading by example. He stated that he could motivate others and gain their respect by demonstrating flexibility and convincing others to follow and carry out tasks. The contingency leadership style indicated that there is no universally effective leadership approach suitable for all situations, emphasizing that influential leaders must adapt their style to match the specific demands of each context.

Participant 1, a studio manager in the entertainment industry, and Participant 10, a Commanding Army Officer, identified as servant leaders, demonstrating a strong desire to excel for the benefit of their team members. In Chapter 2, Linden et al. (2008) reported that servant leadership leads to higher organizational effectiveness. Servant leadership emphasized that leaders serve their followers. Meuser and Smallfield (2023) discussed the benefit of servant leadership in creating an environment that promoted a sense of community. Participant 10 served in a military community with tens of thousands, where enabling personal and professional growth in the environment was critical. Servant

leadership theory stresses the importance of creating a service culture that builds trust and creates psychological safety.

The democratic leadership style highlights the significance of including followers in decision-making, appreciating their contributions and feedback, and fostering collaboration and teamwork within organizations. This approach was mirrored in the responses of Participants 2, 3, 6, and 14 regarding their leadership style. Participants 2 and 3 worked in the manufacturing industry, characterized by an environment facilitating the division of a problem among different departments. This approach allowed concurrent troubleshooting efforts to identify the root cause more effectively. In both cases, decision-making conversations were data-driven and analytical, examining the different inputs from various teams. Participant 6, a psychiatric nurse, used emotional intelligence with the people she was leading for feedback and teamwork to manage constant change. Participant 14, an international commercial airline pilot, prioritized involving as many team members as possible in decision-making, leveraging the team's diverse cultural backgrounds and experiences to make the most informed choices. This collaborative approach extended from flight attendants and ground crew members to the captain, ensuring that a wide range of perspectives contributed to the decision-making process.

The transformational leadership style reported by Participants 9, 7, and 12 in the VUCA environment is a critical style that deserved serious thought to provide stability and anchor the organization to move forward in a dynamic crisis (Miska et al., 2020). Participant 7, the reverend of a LGBTQ congregation, provided individualized support and attention to each follower (Bass, 1990). Participant 12, the investment manager of a

hospitality group, had the vision to recover and set high standards that facilitated the stakeholders' transcendence (Kelloway & Barling, 2000). Participant 9, the city fire chief, challenged his team members in the size-ups to question assumptions and explore new ideas.

Hill et al. (2022) stated that the complexity of leadership roles is escalating due to heightened expectations from stakeholders, the necessity of operating on a global scale, the critical nature of digital transformation, and the imperative for innovation. This complexity shows the need for a diverse set of effective skills within an organization and in interactions with external entities. This study highlighted that leadership styles must be internally developed and move beyond conventional frameworks, especially in response to complex and uncertain environments that demand a specific type of leadership.

Recurring Themes

Teamwork

The three recurring themes revealed in the study support the research from Chapter 2. The first theme, teamwork, has been recognized as a way of life in organizations and has been studied for the past 50 years (Salas et al., 2008). The science of teamwork has continued to be studied because successful teams improve the overall business outcome, and being a part of a team is a primary driver of employee engagement (Johnson, 2021).

Thirty-eight percent of the study participants were trained in military or civil servant approaches and protocols to crisis management. While the intensity and specialization of the training may differ, all were built on the foundation of teamwork.

Participant 6, a psychiatric nurse, could not manage a crisis without the knowledge and

training to approach a psychotic patient safely or without a team whose members knew

their role. Participant 9, the city fire chief, emphasized the significant impact that

knowing and understanding one's team members can have on successfully resolving

problems. Participant 14, an international airline commercial pilot, highlighted the

importance of having team members distributed across various locations, including both

in-flight and on the ground. He noted that this diversity in positions and locations

provided a range of insights crucial for making the best possible decisions. Participant 13,

a Senior Marine Officer, employed small, dispersed teams capable of making

autonomous decisions. These teams, primarily focused on scouting, were designed to

integrate seamlessly into the larger team framework, emphasizing a solid collaborative

effort. The collaborative approach allowed for independent decision-making without the

need for prior approval.

Participant 10, a Commanding Officer in the Army, highlighted the fundamental

role of teamwork within the military's operational code. She emphasized that

interdependence among troops is essential in such a volatile and uncertain environment.

This reliance on each other is deeply ingrained in the military culture, facilitating a

cohesive unit that prioritizes mission objectives, the team's collective success, and a

commitment to ensure the safety and well-being of every member. She explained that this

culture goes beyond mere collaboration; it involves building a strong sense of unity,

where each member is dedicated to the common goal and where "leave no man behind" is

a deeply held value. This approach strengthened the operational effectiveness of the

military. It reinforced the morale and solidarity among its members, ensuring that each individual feels valued, supported, and integral to the mission's success. Teams are the foundation of the military, and the unique perspectives and backgrounds of the team members are recognized to enhance creativity and problem-solving (Goodwin et al., 2018). Goodwin et al. (2018) reviewed over 60 years of research on team science with significant military contributions and organizations outside the military and found the following:

- A team's performance is more effective than that of individual team members.

- The cognitive process of the team plays a significant role in performance.

- When measuring teamwork behavior within and between performance episodes, the performance is dynamic, cyclical, and episodic.

- Multiteam systems matter, and team training approaches provide learning in the context of the assigned tasks.

Goodwin's principles were reflected in the study's lived experiences of organizational leaders. Teamwork emerged in the study from the McKenzie and Company (2023) report on the state of organizations, identifying that the shrinkage in professional networks since COVID-19 is a concern, and there is a need to focus on the people in the organization (Guggenberger et al., 2023). To ensure effective recovery in the future, leaders need to collaborate to increase efficiency in response to ongoing crises. Swartz et al. (2019) emphasized that innovation significantly benefits from the involvement of diverse teams, which bring together a variety of skill sets and ways of thinking. By incorporating individuals with different backgrounds, experiences, and

perspectives, teams can approach problems more creatively and develop comprehensive solutions. Diversity in teamwork enriches the brainstorming process and enhances the team's ability to identify unique opportunities and challenges from multiple angles. As a result, the collaboration among team members with varied skills and cognitive styles leads to a more agile and innovative environment, advancing breakthroughs that might not be achievable by a more homogenous group.

The importance of teamwork was recognized in Chapter 2 with the effect of VUCA and COVID-19 on the healthcare industry, specifically Oxford University Hospital. When isolated working on virtual platforms, the death of hospital team members forced resilience to become part of the organizational culture to focus on health and safety for patients and staff. Ferrazzi and Morken (2022) reported that how people work as a team contributes to the resiliency of team members, and individuals feel responsible for energizing each other. Social connections are crucial to building resiliency.

The BPS model in the study adopted a BPS approach to employee well-being, recognizing the psychological and social factors that affect employee motivation. Judge et al. (2001) reported that job satisfaction is influenced by social support and can reduce the adverse effects of stressful demands arising in a crisis. The BPS model reflects an understanding that social factors could influence the success of training and development programs (Noe et al., 2014). Being part of a team and having social connections promotes physical, emotional, and mental health and higher levels of human performance. The BPS

approach to human performance added value to all stakeholders, with social support contributing to individual and organizational performance (Jolly et al., 2021).

The leadership styles reported by participants and explained in Chapter 2 focused on teamwork. Transformational leadership focuses on transforming colleagues to achieve their full potential. Jung and Avolio (2000) found that transformational leadership affected team performance through value congruence and trust. Servant leadership stresses the importance of leaders serving their teams and focusing on their needs. Situational leaders reached out to every team member to meet their individual needs. Democratic leaders value every team member's input regardless of their role or level of expertise (Northwest Executive Education, 2023). Judge and Bono (2000) cited interpersonal skills as one of the most critical predictors of leadership effectiveness strongly related to leadership outcomes.

Decision-Making Constraints

In a crisis, decisions become more complex because of conflicting information, misinformation, or lack of information, and decisions must be made using the best available data. Flexibility and out-of-the-box thinking were limited when a leader had been trained to follow specific protocols and orders, as for Participant 6, a psychiatric nurse, when her decisions were secondary to those of the doctor in charge. In a crisis, traditional leadership is stressed and tends to assert control to reduce the risk, resulting in fewer options. Human performance in crises is closely related to emotional intelligence, a component of leadership that facilitates leaders responding appropriately in different situations.

In a crisis, human performance plays a crucial role. When the ability to make decisions is restricted because of government jurisdiction, state or federal, it creates stress that impacts the team's emotional needs, which decreases trust, motivation, and overall performance (Mather & Carstensen, 2003). Participants 7, 10, 11, and 16 faced the COVID-19 crisis and, as leaders, reported a variety of stressors, including a staff and customer shortage and uncertainty surrounding how and if business could be conducted. Participant 11, a fitness studio owner, initially had to implement social distancing measures for members. State officials then mandated the closure of his studio, providing no clear guidance on when it might be allowed to reopen. The emotional and mental stress around being able to support his family financially forced him to move past the constraints of reopening and start to look for alternative ways to make a living.

Participant 10, a Commanding Army Officer, transitioned from regular in-person meetings to Zoom meetings amid the COVID-19 pandemic. She observed that the shift resulted in missed opportunities for collaboration, attributing this to the lack of informal conversations that typically occurred in hallways and the absence of face-to-face interactions with peers from specific organizations. "The lack of face-to-face does not work in the military per se." The inability to control where and how we conduct operations impacted the effectiveness of the relationships that have been developed.

Participant 16, an optometrist, and the founder of her practice evaluated every operational aspect of the business. This review encompassed everything from the front desk operations to implementing noncontact check-in procedures and trying on glasses. The scheduling system was also adjusted to include a designated cleaning period between

each patient appointment. The staff, mainly mothers, faced challenges when schools closed, leading to a staff shortage. This situation added to the stress of managing the business during the COVID-19 pandemic, especially since many of the female employees were single mothers with no alternative financial support. The prevailing ambiguity led to widespread confusion, with rumors and fear overshadowing the facts. Decisions aimed at keeping the business operational were constantly revised in response to daily updates, which hindered the ability to make firm decisions and progress.

In Chapter 2, the POP-DOC model was used to illustrate the COVID-19 pandemic because the model integrated brain science, psychological factors, and the social impact of the crisis so that leaders could build in high-stress, high-stakes, and unpredictable situations. There were six steps: perceive, orient, predict, decide, operationalize, and communicate. Brown et al. (2018) acknowledged how psychological factors affected crisis leaders' decision-making and thinking. As information changed daily, it became difficult to understand and adjust to the evolving environment. This constant flux made decision-making, implementing operations, and communication challenging and exhausting.

Communication Strategy

Reflecting on COVID-19, the need for clarity in communication was paramount. An overload of information left Participants 11 and 16 confused and overwhelmed, limiting how they reacted in the decision-making process. Leaders must grasp the present circumstances, be aware of ongoing actions, and identify measures they can take to prevent the situation from deteriorating further.

Kaul et al. (2020) stated that a leader's silence could be interrupted as bad news, creating more attention to the quantity and quality of communication coming from leaders. Participant 10, Commanding Army Officer, recognized that communication must be transparent and honest enough to admit when they do not know the answers. Sometimes, what needs to be heard is, "We may not know all the answers today. We are doing the best we can, and we do not know it all; rather than saying definitively that this is true one day, and then coming back the next day and having to change it, that degrades confidence and trust."

The VUCA framework recognized that communication is critical in a VUCA environment where employees feel uncertain and anxious about their jobs, impacting employee engagement and retention (Lam, 2017). Communicating often and directly with employees in decision-making and problem-solving can improve employee retention. Accurate information was essential for timely communications that were shared and coordinated into problem resolution. Effective communication built trust and alleviated anxiety among team members and stakeholders while making other supportive resources available that facilitated open communication channels.

Baran and Woznyj (2020) recognized the criticality of communication in VUCA times, and leaders must model open communication across the organization and teams to enable a fast response. Mendy et al. (2020) outlined the following techniques that helped leaders communicate effectively with a sense of purpose and trust in a crisis:

- Communicate concisely and frequently as the crisis evolves. Information helps people move from a safe and calm environment to accepting change and uncertainty.

- When sharing critical information, communicate the message so people know what action is required.

- Do not speculate or hold information back; be open and honest. Focus on what can be controlled and build strength within the organization.

- Help people understand what has happened by communicating meaning and a clear vision.

Vecchiato (2019) stated that organizations faced the biggest challenge in the decision-making process, which depended on the leaders' ability to analyze the VUCA environment quickly to react to the new situations that emerged. Crisis communication has become more prominent since COVID-19 and started with understanding the questions that must be answered. Participant 10, Commanding Army Officer, reported that in a large organization, "when you have communications problems, it requires an immediate response, and you deal with some other organizations or staff offices that do not understand the need to respond that quickly; this depends on the relationships developed beforehand." Research supports that the public would rather have honest answers, even when it is bad news.

The importance of communication was reflected in the leadership styles modeled by participants. Participant 10, the servant leader, encouraged open communication and feedback to build trust and collaboration. Transformational leadership has four pillars,

and one of them, the inspirational motivation pillar, refers to the leader's ability to communicate a vision or goal. In the Democratic leadership style, there is an emphasis on encouraging open communication and participation, with feedback being highly valued.

<div align="center">**Emerging Themes**</div>

The BPS model recognized the intersection between mental, emotional, and physical health. BPS addressed the three components affecting employee motivation, job autonomy, and work-life balance (Judge et al., 2001). Noe et al. (2014) reported that the effectiveness of training programs was influenced by motivation, learning style, and social support. The BPS approach recognized that employee health and well-being were impacted by physical health and job stress, social support, burnout, and work-life balance (Patterson et al., 2016). Three emerging themes reflected the BPS model: mental, emotional, and physical health issues resulting from the accelerated stress in a VUCA business environment for crisis decision-making.

Mental Health

The stigma around mental health has prevented society from dealing with the reality that one in every eight people in the world lives with a mental disorder, and most people do not have access to adequate care (WHO, 2022c). Anxiety and depression were the most common disorders and have increased because of the COVID-19 pandemic. In year one, WHO estimated a 26% increase in anxiety and a 28% increase in depressive disorders. The 2023 Mind Share Partners Mental Health at Work Report measured the Impact of Mental Health on Productivity and Engagement. The study found that 36% of

the participants reported difficulty concentrating, 29% took longer to finish tasks, and 24% had difficulty thinking, reasoning, or deciding.

In 2022, 36% of company benefit leaders reported offering mental health benefits as very important; in 2023, that figure rose to 94% (Lyra Health, n.d.). Culturally responsive mental health care that is more responsive for LGBTQ communities and Black, Indigenous, and people of color populations needs are multiplying, and the connection between culture and mental health was an integral part of mental health strategy (Mason, n.d.). More employees were leaving their jobs for mental health reasons, and mental health was a challenge across all organizational levels, affecting nearly all employees regularly (Greenwood & Anas, 2021).

The APA 2023 Trends Report stated a shift in attitude around employee mental health. The shift had taken the responsibility off the employees to reduce their stress levels and placed it onto the organization, which then took responsibility for paying attention to the mental health of employees and the work environment. Organizations acknowledged the connection between workplace conditions and well-being, aligning with the mental health trend that emerged from this study. COVID-19 taught us that things could change overnight – leaving workers with a lot of fear and uncertainty that organizations must address by paying more attention to mental health.

Emotional Health

The United States Surgeon General, Dr. Vivek Murthy, released a general advisory calling attention to loneliness, isolation, and lack of connection in the United States in May 2023. Before COVID-19, half of the adults in the U.S. reported measurable

levels of loneliness, creating disconnection that increased the risk of developing mental health challenges and the risk of premature deaths comparable to smoking daily. Dr. Murthy said, "Given the significant health consequences of loneliness and isolation, we must prioritize building social connection the same way we prioritize other critical public health issues such as obesity and substance use disorders." Older adults account for an estimated $6.7 billion in excess Medicare spending annually from increased hospital and nursing facility charges (Flowers et al., 2017). Stress-related absenteeism resulting from loneliness costs employers an estimated $154 billion annually (Bowers et al., 2022).

Humans are wired for social connection; we need each other and rely on each other for survival. This study considered stress, neuroscience, and emotional intelligence's role in crisis decision-making. During a crisis, people experience emotional overload because of the volatility and complexity of the situation, resulting in errors and bias. The brain pushes the emergency button, and the amygdala kicks in the fight-flight-freeze response. High levels of uncertainty led to anxiety and stress (Muthusamy & Lee, 2021).

This study examined the relationship between emotion and decision-making, focusing on how emotions affect perception and interpretation during the decision-making process. Insights emerged through examining the lived experiences of organizational leaders faced with crisis decision-making, highlighting the significant impact of emotions on their decision-making strategies. The American Psychological Association has been monitoring the emerging trends concerning human performance, the prominent issues in health care, and the need for positive change (Spiner, 2022). The

role that emotions play in the future of creating sustainable high levels of human performance continues to be an emerging trend.

Physical Health

The Centers for Disease Control and Prevention considers mental and physical health equal to overall health. Depression increases the risk of diabetes, heart disease, and stroke. Diabetes distress can be confused with depression or anxiety, but it cannot be treated effectively with medicine (Centers for Disease Control and Prevention, n.d.). Diabetes requires a different approach with a deeper understanding of the challenges. This example illustrates the intersection between physical and mental health in everyday life. Chronic stress can lead to changes in the function and structure of the brain that cause impairment in executive function, impacting the decision-making process and creating more stress. Research reported more heart attacks and strokes as a result and recommended coaching as an approach to help leaders find their purpose and goals and reduce stress.

The relationship between stress and physical health emerged in different ways in this study. Participant 12, an investment manager in the hospitality group, reported that the vulnerability created in the crisis affected her immune system, and she was diagnosed with cancer. Participant 4, the technology director of online sales, had experienced heart issues previously from cumulative workplace stress and was sensitive to setting boundaries. Both had their physical health significantly impacted by workplace stress. They recognized the importance of physical health, learning to use physical exercise to combat mental stress and positively balance their overall health.

Limitations of the Study

A limitation of the study could have been introduced by the limited time frame of the interview, which was one hour. Some participants may have needed more time to reflect on what had been said in the hour. Member checking was done during the interview to ensure the participant's message was interpreted correctly. The study employed a three-phase approach to data review, which included analyzing written transcripts and audio recordings and then examining the written and audio data together. This comprehensive method ensured that all data was thoroughly captured and accurately interpreted, minimizing the risk of misinterpretation.

Recommendations for Future Research: Agility Versus Adaptability

Agility and adaptability are often interchanged in research, creating confusion. Agility and the complexities and uncertainties of the VUCA world required organizations to encourage innovation and quickness to navigate decision-making (Osiyevskyy et al., 2020). O'Reilly and Tushman (2013) stated that organizations must develop the ability to innovate and adapt efficiently to achieve organizational ambidexterity. The traditional approaches to strategic planning may no longer be practical, with a more agile and creative approach more effective to ratify the ambiguity in the environment. Buchanan et al. (2020) reported that adaptability, resilience, and strategic thinking are essential to steer leaders through the VUCA landscape.

A phenomenon occurred with COVID-19, with millions of people losing their jobs and the Great Resignation, with the quit rate reaching a record level of 3% (Chugh, 2021). In times of crisis, uncertainty creates volatility and complexity, impacting

employee retention. In a VUCA environment, leaders are forced to respond to continual change. They must develop adaptability to new technologies and customer needs, requiring leaders to be flexible and agile in decision-making (Kotter, 2012).

When looking at leadership as a component of success in the VUCA environment, one challenge is the ability to make decisions with speed and agility. Krawczyńska-Zaucha (2019) reported that the ability to analyze the entire situation and the individual parts while integrating the information into the decision-making process required flexibility. Grover and Kapoor (2019) reported that in the VUCA environment, adaptability, resilience, and problem-solving skills were needed to respond to changing conditions, and leaders could improve human performance with training programs to develop those skills.

This study showed the need for agility across industries and different crises. Participants 8 and 13, both Marines in the military, viewed agility as something that set leaders apart and inspired others to follow. Participant 7, a reverend with an LGBTQ congregation, focused on being agile to adapt and readapt to constant change necessary to stay aligned and keep the congregation served. Participant 11, a fitness studio owner, was forced to shift the overall direction of his business to survive the COVID-19 crisis. Participant 12, the investment manager of a hospitality group, lost everything after being embezzled of a million dollars. She was forced to embrace agility to move forward and build resilience to respond to constant change.

Implications of the Study

Individual-Level Implications

This study emphasized the importance of integrating practice recommendations for navigating positive social change and making effective decisions during crises within the business sector. The three research questions highlighted the necessity for agility, situational awareness, and critical thinking for individuals in corporations and organizations to adeptly manage the complexities and uncertainties of today's business environment.

Agility in a business context is defined as the capability of individuals to move swiftly and efficiently through business processes and decision-making. This study showed that agility improved when individuals and organizations employed ethical decision-making frameworks, particularly in decision-making. According to Edmondson and Gulati (2021), such frameworks provided moral guidance and criteria that enabled quick decision-making, ensuring that actions were consistent with the organization's core values and ethical standards. This is crucial during a crisis when decisions must be made quickly and under pressure. Ethical frameworks were shown to ensure decisions are not only made rapidly but are also fair and responsible.

This study further identified a resilient work culture as a fundamental agility component. It found that individuals promoting resilience are better prepared to adapt quickly and effectively to changes. Resilience was described as the ability of an individual to endure and recover from difficulties, emerging more robust and more

informed. A resilient work culture was seen to value adaptability, continuous learning, and emotional intelligence.

Enhancing individual agility was also linked to regular crisis decision-making and preparedness training. Such training, covering a variety of potential scenarios and including simulations, ensures individuals can respond promptly and efficiently when crises occur. This preparation decreased response times and increased effectiveness by ensuring leaders were prepared for unforeseen challenges.

Situational awareness was explained as understanding the business's internal and external environments, including market trends and socioeconomic factors. Data analytics tools were highlighted to improve situational awareness, allowing individuals to anticipate market changes or risks. Regular stakeholder communication was recommended for gaining insights into external challenges and opportunities.

Critical thinking was identified as essential for effective decision-making, involving objective information analysis and reasoned judgments. Developing strong problem-solving skills and encouraging team diversity were suggested to enhance critical thinking. The study advocated for continuous learning and cultural improvement to maintain critical thinking skills on the individual level.

This study proposed that by incorporating agility, situational awareness, and critical thinking into their practices, individuals could more effectively manage crises and contribute to positive social change. This approach, the study showed, would lead to individuals who are more resilient and agile, make better decisions, and respond effectively to the complexities of the global business landscape.

Family-Level Implications

In this section, we examine the familial influences on crisis decision-making and how these influences extend to individual, organizational, societal, and policy-level implications. The basis of our exploration is anchored in the understanding that as humans, our decision-making processes are deeply intertwined with our familial contexts, encompassing both our immediate and extended family.

Fundamental to this discussion is the recognition that family dynamics play a crucial role in shaping our perspectives, values, and approaches to crises. These dynamics affect individual decision-makers and have cascading effects on the organizations they are part of, the societies they interact with, and the policies they shape or govern. Addressing crisis decision-making and positive social change at the family level involves adopting a more collaborative and supportive approach. Families can benefit significantly from strategies that enhance their collective decision-making abilities, resilience, and support systems in times of crisis.

Families can cultivate an environment where each member feels heard and valued regardless of age by engaging in open and inclusive discussions where all members can voice their opinions and concerns. Such a practice aids in better decision-making and strengthens family bonds. Understanding and acknowledging each other's emotions and perspectives can lead to more harmonious decision-making, especially in crises where stress levels might be high.

Learning and practicing conflict resolution skills can be highly beneficial. Families can work on developing strategies to handle disagreements constructively

without escalating tensions. Aligning shared goals and values can guide decision-making processes and ensures that decisions reflect the family's core beliefs and long-term objectives, even in a crisis. Families should focus on providing emotional support to each other, recognizing that individuals may cope with stress differently. Teaching and practicing resilience within the family helps cope with unexpected changes involving adjusting routines, reassigning responsibilities, or finding new ways to support each other. Resilience is about withstanding crises and about emotional recovery.

Maintaining positive communication, especially in challenging times includes talking about problems, sharing positive experiences, and maintaining a sense of normalcy. After a crisis, families should reflect on what happened, discuss what was learned, and how they can better prepare for the future.

A nurturing and empathetic environment is the foundation of a robust family support system which creates a space where family members feel safe to express their feelings and concerns knowing they will be met with understanding and compassion. While the family unit is a crucial support system, building networks outside the immediate family, including extended family, friends, community groups, or professional counseling services, may also prove helpful. These external networks can provide additional perspectives, resources, and emotional support. Family activities can strengthen bonds and provide stability and regularity, especially during turbulent times. The activities can be as simple as having a weekly family dinner, movie nights, or participating in community events. It is essential to ensure that every family member's health is cared for by paying attention to their physical fitness, mental and emotional

state. To support each other well, families should encourage healthy lifestyle choices, stay alert for any signs of stress or emotional concerns, and not hesitate to get professional help when needed especially in times of crisis.

Handling crises effectively and contributing to positive social change at the family level involves a multifaceted approach. By practicing collaborative decision-making, building resilience, and establishing support systems, families can navigate crises more effectively and emerge stronger and more united. These actions help each person in the family but also improve the overall health and happiness of the whole family. As the fundamental unit of society, the family plays a crucial role in shaping a more resilient and empathetic world.

Organization-Level Implications

When aiming to create positive social change and manage crises within an organization, leaders need to focus on ethics, involving all stakeholders, and ensuring actions are sustainable. By integrating these elements, organizations can better handle crises and contribute to societal well-being. Ethical leadership prioritizes moral values and principles over short-term profit gains, especially during crises. An approach like this ensures that the decisions benefit the company and society. Ethical leaders are transparent about their choices and open to scrutiny, holding themselves and their organizations accountable for their actions, particularly in high-stakes crises.

These leaders demonstrate empathy and compassion towards their employees, customers, and communities when these stakeholders are most vulnerable in a crisis. Ethical leaders are committed to integrity in their decision-making processes and involve

honesty, fairness, and consistency in decisions, ensuring they align with the organization's core values. Ethical leaders serve as role models, setting a standard for organizational behavior. Their actions during crises can significantly influence the organizational culture and its ethical climate.

Engaging diverse stakeholders ensures that decisions are well-rounded and consider the needs and perspectives of different groups, including employees, customers, suppliers, community representatives, and shareholders. Trust is a crucial component of effective stakeholder engagement. Organizations must build trust through consistent and honest communication, particularly during crises. They must establish mechanisms for stakeholders to provide feedback on the organization's decisions and actions, including surveys, focus groups, or community meetings. Organizations must balance their stakeholders' diverse and competing interests under crisis conditions, where decisions must be made rapidly. Developing long-term relationships with stakeholders, rather than transactional interactions, can provide insights and support during crises.

Sustainability in crisis management involves making decisions that ensure the organization's long-term viability and consider these decisions' environmental, social, and economic impacts. Incorporating environmental sustainability into crisis management involves minimizing negative environmental impacts, such as reducing waste and carbon footprint. Economic sustainability means ensuring the organization remains financially viable in the long term. Sustainability should be integrated into the overall organizational strategy, not considered an afterthought. Sustainable practices often require innovative

thinking and adapting to changing circumstances and could involve developing new business models, training programs, and sustainable products.

At the organizational level, effectively handling the crisis decision-making and contributing to positive social change involves focusing on ethical leadership, stakeholder engagement, and durability. These elements are interconnected and essential for organizations seeking to understand modern business environments. Organizations can weather crises more effectively by prioritizing ethical decision-making, inclusive stakeholder engagement, and sustainable practices and emerge as leaders in social responsibility and positive change.

Societal-Level Implications

Addressing positive social change and crisis decision-making at the societal level involves a broad, integrative approach. Societies can benefit from inclusive policies, community engagement, and a focus on systemic change. These approaches can help build resilience and ensure that the needs of diverse groups are met during crises. These strategies are connected and essential for building resilient, equitable, and just societies in the face of crises. By focusing on inclusivity, empowering communities, and targeting systemic issues, societies can better handle current and future challenges, leading to an unbiased and equitable world.

In crisis decision-making, inclusive policies ensure that all segments of society, especially marginalized and underrepresented groups, have their voices heard and their needs addressed. Inclusive policies allow these groups to participate in policy formulation and decision-making processes. Policies should make financial, educational, or health-

related resources accessible, especially during crises when exposures are intensified. Effective legislation and enforcement are vital to ensuring that inclusive policies are not just on paper but are actively implemented and benefit the intended groups.

Inclusivity is often linked with diversity and equity. Supporting cultural and social groups, including LGBTQ, race, religion, and ethnicity, means being culturally sensitive. Policies should respect and acknowledge the diverse cultural backgrounds of society's members, ensuring that responses to crises are appropriate and effective for different cultural groups. Including the different impacts of crises on diversity groups in the workplace is essential. There is gender diversity, age, and ethnic diversity, as well as physical ability and neurodiversity (McKinsey & Company, 2022). Inclusive policies should address specific needs and challenges faced by all diverse groups so that the workforce experience for all groups allows them all to contribute.

Communities often possess valuable knowledge and resources that can be helpful in crisis resolution. Engaging with communities allows a deeper understanding of the local context and creates more effective crisis management. Strong community networks can serve as a support system during crises. Networks like these can facilitate the distribution of resources, share critical information, and provide emotional support. Identifying and empowering local cultural and social leaders can effectively mobilize communities during crises. Leaders often have the trust and respect of the community, making them compelling figures in crisis resolution efforts. Encouraging and supporting community-based initiatives can lead to more sustainable and effective crisis management.

Collaborations between communities, nongovernmental organizations, and civil society can enhance decision-making and crisis response capabilities through systemic change. Collaborations can bring in additional resources, expertise, and broader outreach, which may involve addressing issues like poverty, inequality, mental health issues, health care disparities, or systemic racism to prevent recurring crises. Achieving significant change involves improving current policies and developing new ones that are fairer and more equitable. Companies may need to rethink economic, social, and mental health policies to ensure they are aligned with long-term societal well-being.

Raising awareness and educating the public about the causes and effects of decision-making in crises makes the public better equipped to demand and support systemic change. Systemic change requires long-term planning and vision. Societies should develop decision-making strategies that address immediate crisis needs and aim to build resilience against future crises.

Policy-Level Implications

Developing and implementing policies when creating positive social change and making decisions during crises allows better planning for the future, a system of accountability, and transparency. Policies should be framed after thoroughly assessing the needs of diverse societal groups, especially those marginalized or vulnerable, and involve engaging with these communities to understand their unique challenges and requirements. Equitable policymaking often requires the redistribution of resources to ensure that all segments of society have adequate access to necessary services and support, particularly in times of crisis.

Equitable policies are best developed by including decision-making representatives from various societal groups, especially those directly affected by the policies. Inclusion ensures that different perspectives are considered, and the policies are more comprehensive and practical. Understanding the difference between equity and equality creates better policymaking. Equity involves giving more to those who need it most, as opposed to equality, which involves giving everyone the same regardless of their starting point. Policies should aim to identify and dismantle systemic barriers that contribute to inequality, such as discrimination based on race, gender/LGBTQ, economic status, or disability. Long-term planning in policymaking involves focusing on sustainability, ensuring that policies are effective in the short term and viable in the long run.

Predictive analysis and scenario planning can help policymakers anticipate future crisis decision-making and challenges, formulating more effective long-term strategies. Policies should aim to build resilience within communities and systems, equipping them to handle future crises better, which could involve investing in infrastructure, education, and healthcare systems. While addressing immediate crisis needs is crucial, policies should also be framed with an eye on the future, considering the long-term societal impacts of these decisions.

Policies should be formulated and implemented through transparent and open-to-scrutiny processes, clearly communicating the rationale behind policy decisions and the measurable outcomes. Public participation in the policymaking process enhances accountability and transparency. Setting and enforcing high ethical standards for those

involved in policy decision-making helps prevent corruption and conflicts of interest, ensuring that policies are made in the public's best interest.

Creating policies for social change and crisis management requires equitable, sustainable approaches with clear accountability and transparency. Such policies meet immediate needs and lay the groundwork for lasting societal well-being and resilience. Policymakers create a more stable and just society by ensuring resources are distributed to those who need it most while considering the long-term effects. Adopting ethical, inclusive strategies in decision-making for policy leads to a more equitable, resilient, and thriving society.

Recommendations for Practice

This section explores the comprehensive recommendations from the interviews with various crisis decision-making leaders The participants come from various high-pressure situations and include organizational leaders, small business owners, top military officers, experienced pilots, and emergency/medical responders. The breadth of these recommendations reflects the interviewees' diverse backgrounds and experiences. Organizational leaders utilized critical thinking in strategic decision-making under crisis pressure, while military and first responders shed light on decision-making in life-and-death situations. The airline pilot discussed the agility in split-second decision-making in high-pressure scenarios, whereas first responders shared their experiences with situational awareness in handling emergencies calmly and efficiently. The reverend offered perspective on emotional and mental health in crisis decision-making management.

Military and first responders provided practical strategies for immediate response in volatile and uncertain environments.

The depth of the recommendations is equally impressive. They range from tactical approaches for immediate crisis resolution to strategic planning for long-term impact. These recommendations encompass various aspects of crisis decision-making, including agility, mental preparedness, emotional resilience, team dynamics, communication strategies, and decision-making constraints. This section aims to provide a multi-dimensional understanding of crisis decision-making by synthesizing these wide-ranging viewpoints. The insights gathered contribute to academic knowledge and offer essential guidelines for professionals across sectors facing critical decisions in VUCA settings.

Leadership Development

Leadership development is recognized as a component of success in a VUCA environment in Chapter 2. Crisis management training is crucial for employees and leaders, creating psychological safety for employees. Training equips them with the necessary skills and knowledge to respond effectively and with agility in crisis. Such training often includes scenario-based exercises, which help understand the dynamics of different crises. Mental health awareness is increasingly recognized as a vital part of crisis training. Crises can have a significant impact on the mental health of employees, and both staff and leadership must be equipped to recognize and address these challenges. Training in mental health awareness can include recognizing signs of stress and burnout, understanding the impact of crises on mental health, and learning how to identify and support colleagues who may be struggling. Employees' and other stakeholders' mental,

emotional, and physical health is integral to crisis decision-making, which involves putting measures in place to support the mental health and emotional well-being of all involved. COVID-19 surprised the world with how unprepared we were for an emergency response. Beyond formal training sessions, preparedness can also involve regular drills and simulations to ensure that employees are familiar with emergency procedures and can respond effectively. These drills also help identify gaps in the organization's crisis response plan and allow for critical improvement.

Inclusive Leadership

Extensive research in Chapter 2 reviewed leadership style and theory. This study has revealed that promoting inclusive leadership within organizations, especially in times of crisis, is critical in ensuring effective decision-making and fostering positive social change. Zheng et al. (2023) reported that inclusive leaders are up to 50% more likely to make better decisions. Korkmaz et al. (2022) conducted a systematic review of 107 academic articles on inclusive leadership focusing on the multi-level concept, the importance of the employee, team, and organization within four dimensions: promoting diversity, building relationships, recognizing efforts and contributions, and promoting organizational mission on inclusion.

Inclusive leadership involves understanding and valuing diverse perspectives, a skill that becomes even more crucial during crisis decision-making. Training leaders in the practice of inclusive leadership is the first step. This training should enhance leaders' understanding of diversity, social and cultural distinctions, and how brains think. Such training could include modules on emotional intelligence, effective communication,

teamwork, neurodiversity, and agility, as these skills are essential for leaders to engage effectively with a diverse workforce.

Inclusive leadership also requires creating an environment where all voices are heard and respected. Zheng et al. (2023) stated that the two building blocks are authenticity and psychological safety. Leaders should be trained to solicit input from a wide range of stakeholders actively and consider the insights and opinions of each group. This approach ensures that decisions are made based on a well-rounded understanding of the situation, considering the viewpoints and experiences of all affected parties. Promoting inclusive leadership involves challenging existing organizational biases and stereotypes. Leaders should be encouraged to examine their biases and understand how they can impact their decisions and interactions. Organizations can facilitate this through workshops and regular training sessions focusing on unconscious bias, confirmation bias, cultural competency, and inclusive practices.

Community and stakeholder collaboration is critical for organizations, especially in crisis decision-making, by forming partnerships and working closely with various groups and individuals who have a stake in the organization or are impacted by its operations. Organizations can leverage various insights, expertise, and resources by collaborating with these diverse entities, leading to more effective and comprehensive crisis management strategies. Collaborating with stakeholders and communities often involves joint problem-solving in crisis decision-making. Another critical aspect of community and stakeholder collaboration is sharing resources and expertise.

Organizations should strive to promote a diverse range of individuals into leadership positions. Zheng et al. (2023) stressed the importance of leaders sharing their vulnerabilities to build trust and psychological safety. Clear, transparent, and empathetic communication strategies are not just tools for information dissemination; they are fundamental in maintaining trust, morale, and a sense of community among employees and stakeholders.

Developing clear communication strategies is essential to reflect the value of employees' and stakeholders' backgrounds and beliefs. Communication should demonstrate three primary behaviors: audience-centered language, word choice, vocal patterns, and nonverbal cues, and the other behaviors should demonstrate authenticity and subject matter expertise (Guthridge, 2021). Information can often become convoluted or misinterpreted in a crisis, so messages must be conveyed unambiguously. Communication strategies should be designed to acknowledge and address these emotional states. Leaders need to share information but also express understanding and compassion. Leaders should communicate in a way that resonates with and supports the emotional well-being of all their stakeholders.

Transparency is another critical component. In times of crisis, stakeholders look to their leaders for honesty and openness, communicating the positives, challenges, and uncertainties. Transparent communication involves sharing what is known, what is not, and the steps taken to find solutions. Such transparency fosters trust and respect between the organization and its stakeholders. Regular updates are crucial in maintaining an ongoing dialogue with stakeholders. In a rapidly evolving crisis, regular communication

can help alleviate mental health concerns, like anxiety stemming from uncertainty and volatility. These updates should be scheduled and predictable, providing stability and consistency.

Two-way communication channels should also be established. Organizations should encourage feedback and provide forums for stakeholders to voice their concerns, ask questions, and offer suggestions. Feedback can be facilitated through virtual town halls, surveys, or open forums. Such interactive communication ensures that stakeholders feel heard and valued, and it can also provide organizations with valuable insights. Those tasked with communicating on behalf of the organization during a crisis should be trained in crisis communication.

Resilience in the Workplace

In Chapter 2, the cognitive approach to building resilience includes thinking, feeling, and behavioral processes that supported positive psychology and psychological capital, both embedded into a resilient organization (Breen, 2017). Fostering a resilient work culture is paramount in today's fast-paced and often unpredictable business environment, especially during a crisis. A resilient work culture is one where employees adapt to stress and change, and the organization actively supports their mental and emotional well-being. The BPS model considered the biological solid influence on the individual's vulnerability to adverse mental health issues (Rees et al., 2015). Advocating mental health awareness is the first step in a resilient work culture. It involves educating leaders, employees, and other stakeholders about the importance of mental health, recognizing signs of stress and burnout, and destigmatizing mental health issues.

Providing mental health resources like employee assistance programs (EAPs), counseling

services, stress management workshops, and wellness programs that are easily accessible

and communicated regularly ensures that support is available.

      A resilient work culture, where employees feel safe to voice their concerns and

challenges without fear of judgment or retribution, can be encouraged through open-door

policies, regular check-ins, and creating forums where employees can share their

experiences and challenges in a supportive environment. Flexibility can significantly

contribute to a resilient work culture. Allowing flexible work options or compressed

workweeks can help employees manage work-life balance, reduce stress, and adapt to

personal and professional changes more effectively. Encourage employees to maintain a

healthy work-life balance by clear boundaries around work hours.

      Discourage the culture of always being 'on,' and promote time-off policies. Strong

team connections build a sense of community. Team-building activities, regular team

meetings, and social events reinforce these connections, providing a support network

within the workplace. Acknowledging and rewarding acts of resilience and adaptability in

the workplace can reinforce a culture of resilience.

      Leaders play a critical role in fostering a resilient work culture. By demonstrating

resilience in their actions, showing empathy, and supporting their teams through

challenges, leaders can set a powerful example for the rest of the organization. Providing

continuous learning and development opportunities helps employees adapt to change and

feel more secure in their roles. Regular feedback and open communication channels are

essential for a resilient work culture. They ensure that employees know how they are

performing, understand their roles and responsibilities, and feel valued and heard.

Acknowledgment of Mental Health

With increased compensation claims for work-related stress, workplace

counseling was introduced as a brief psychological therapy through Employee Assistance

Programs with the general inference that its users appreciated it and positively impacted

objective measures such as sickness and absence (McLeod & Henderson, 2003). Access

to counseling services within organizations is fundamental in supporting employee well-

being, particularly in the modern workplace, where mental health has become a growing

concern. By integrating counseling services into their employee support programs,

organizations provide a vital resource that enables employees to manage their mental and

emotional health effectively. Professional counseling offers a safe and confidential

environment where employees can address work-related stress and personal issues

affecting their performance and overall well-being.

Counseling services can take various forms, such as one-on-one sessions, group

therapy, or even digital platforms offering remote counseling options. This flexibility

ensures that employees can access support that suits their needs and preferences. For

many employees, discussing work-related issues such as burnout, conflict with

colleagues, or job dissatisfaction with a trained counselor can lead to healthier coping

strategies and improved workplace relationships. Tuvulla and Byaruhanga (2017)

conducted a study to establish the effectiveness of workplace counseling to improve

employee performance in Mumias Sugar Company, found the program to be appropriate,

and it significantly assisted in improving the performance of employees affected by problems at work and home. The support extends beyond professional concerns. Personal, familial, financial, or psychological challenges can significantly impact an employee's ability to focus and function at work. Access to counseling services provides a channel for employees to address these challenges, leading to a healthier work-life balance and overall mental well-being.

Greenwood and Anas (2021) reported a greater awareness of the workplace factors contributing to poor mental health and the employer responses. Mental health days and enhanced counseling benefits are not enough. The availability of counseling services is even more crucial during personal, organizational, or global crises. In such times, employees often grapple with increased stress, anxiety, and uncertainty. Because of mental health challenges, more people did leave their jobs, with 68% of Millennials and 81% of Gen Zs voluntarily and involuntarily leaving (Greenwood & Anas, 2021).

The presence of mental health services also sends a strong message about an organization's commitment to its employees' health. It demonstrates a recognition of the importance of mental health, which can contribute to destigmatizing mental health issues within the workplace. When employees feel that their mental health is valued, there is expected to be an increase in job satisfaction, loyalty, and a positive workplace culture.

The stigma surrounding mental health and preexisting conditions has limited the focus on everyone's mental health and workplace issues, such as the most common factor, the work was emotionally draining, overwhelming, and stressful (Greenwood & Anas, 2021). Initiatives to reduce work-related stress are crucial for maintaining a healthy

and productive workplace. Initiatives can take various forms, encompassing workload management to cultivate a positive workplace culture. Effective workload management is a crucial starting point, ensuring unrealistic expectations or unmanageable tasks do not overburden employees, which might involve regular reviews of job roles, redistribution of tasks, or even hiring additional staff to alleviate pressure. Regular breaks throughout the workday are vital for mental and physical rejuvenation. Encouraging employees to step away from their desks, whether for a short walk or a relaxation break, can significantly improve concentration and reduce fatigue. Recreational activities and relaxation spaces within the workplace, such as break rooms or quiet zones, provide employees with a place to unwind and recharge.

Another effective strategy is incorporating mental health learning into the workplace. It involves educating employees about the importance of psychological health and providing them with tools and techniques to support brain health, such as mindfulness exercises, stress management training, and cognitive exercises. Employees can better manage stress and improve their mental well-being by understanding how to maintain brain health with mindfulness. Research proves in more than 200 studies that mindfulness-based therapy in healthy people reduced stress, anxiety, and depression (APA, 2019).

Training managers and supervisors to recognize signs of stress and burnout in their teams is the foundation on which to build. Equipped with this knowledge, they can take proactive steps to address these issues early on. It is also vital for managers to check in regularly with their team members, offering a space for employees to discuss any

challenges they face. Managers and supervisors should be trained in providing effective

feedback and support. Constructive feedback helps employees understand their progress

and areas for improvement, while positive recognition of achievements can boost morale

and motivation.

Leadership Accountability

Leadership accountability is critical to effective governance and ethical

management in any organization. It entails holding leaders responsible for their decisions

and the consequences of these decisions on the organization's stakeholders and the

broader community. Leaders must set clear expectations and standards for other leaders

within the organization. These standards should be aligned with the organization's values,

goals, and ethical guidelines. Leaders should be fully aware of these expectations and the

metrics by which their performance will be evaluated.

Melo et al. (2020) reviewed and synthesized leadership accountability research.

They found that from 1994 through 2018, the publications were not constant, and from

2008-2013, the most significant number of publications emerged, with the Journal of

Business Ethics having the most publications. The leadership models that relate to

organizational performance were the most co-cited publications. Leadership and

accountability have been linked to the leadership theories in Chapter 2, authentic

leadership, and transformational leadership.

Williams et al. (2022) reported that while "leader credibility" is essential for

effective leadership, the construct is not conceptualized, and understanding is missing.

Their review included 108 articles from 1970 to 2021, finding that the most significant

articles were published from 2014 through 2020, with the most prominent categories being public administration, management, leadership, and education. The definitions of leader credibility differed, creating confusion around trust and leader credibility. The study found that leader credibility measurement items were inconsistent, with the connection to transformational leadership being the most consistent.

Leadership Summary

Leadership accountability means evaluating leaders not only based on business outcomes but also on how these outcomes are achieved and includes considering the impact of their decisions on employees, customers, suppliers, and the wider community. For instance, decisions that lead to short-term profits at the expense of long-term sustainability or ethical considerations should be scrutinized and addressed. This holistic approach to evaluation helps ensure that leaders are making beneficial decisions for the organization and all its stakeholders.

Effective leadership accountability also requires the implementation of consequences for leaders who fail to meet the organization's standards. Leadership accountability is about holding leaders responsible for their actions and supporting them in their roles. This includes providing them with the necessary resources, training, and guidance to make informed, ethical, and effective decisions.

Organizations that actively engage in these practices contribute to their employees' well-being and cultivate a more resilient and dedicated workforce. Employees, shareholders, and communities who feel cared for and supported will likely be engaged, productive, and loyal to the organization. Prioritizing mental, emotional, and

physical well-being is a moral responsibility and a strategic approach to building a strong

and sustainable organization.

Conclusions

This study uses the BPS model and IPA framework to explore how organizational

leaders navigate crisis decision-making in a VUCA environment. This study delved into

the importance of critical thinking, situational awareness, and agility for leaders to make

informed decisions, adapt to changes, and guide their organizations through crises toward

growth and innovation. The intricacies of these experiences are important in

understanding the challenges and strategies essential for effective leadership in volatile

and complex situations.

The research encompasses three distinct yet interconnected questions: What are

the lived experiences of organizational leaders utilizing critical thinking with crisis

decision-making in a VUCA business environment? What are the lived experiences of

organizational leaders applying situational awareness with crisis decision-making in a

VUCA business environment? What are the lived experiences of organizational leaders

that relate to agility with crisis decision-making in a VUCA business environment?

Critical thinking enabled leaders to analyze problems deeply and make informed

decisions. Situational awareness involves understanding the environment and anticipating

potential changes and challenges. Agility allowed leaders to adapt quickly and effectively

to new information and circumstances. These skills empowered leaders to steer their

organizations through volatile times, transforming crises into opportunities for growth

and innovation. Effective leadership in such contexts relies on understanding complex

situations, anticipating changes, and responding swiftly and effectively to new information.

This study identified the first theme as effective teamwork, where team members' collective effort and diverse perspectives contributed significantly to navigating crises, demonstrating that success in crises often hinges on different perspectives. Teamwork is fundamental to crisis decision-making, where leaders rely on their team's expertise and cooperation. Influential leaders recognize that they cannot operate in isolation; they need their team's support, knowledge, and collaboration. Building and leading cohesive teams becomes even more critical in crises, including coordinating and delegating efforts and fostering a sense of unity, purpose, and mutual support. With that comes sharing information effectively; verbal sharing in meetings is the most common but the least efficient. Teamwork in a crisis goes beyond mere collaboration; it is about creating a synergistic environment where the collective effort exceeds the sum of its parts, regardless of the extra effort and intention required to share the mission.

Decision-making constraints are the second recurring theme that evolved from this study. Crises often bring a unique set of limitations; be it time, resources, or information. Various factors, both internal and external, can constrain decision-making. These constraints may arise from unclear decision-making roles, information overload or scarcity, misinformation, and the absence of a transparent decision-making process. External factors such as state, local, or government rules and oversight can also influence crisis decision-making. Leaders must navigate these constraints while making decisions that could have far-reaching implications for organizations and the societies in which

they exist. Navigating crisis decision-making required a balance of decisiveness and caution, where leaders weigh the risks and benefits in a constrained environment and make the best possible decisions with the available time and information.

The third recurring theme identifies the importance of communication strategies in crisis management. Effective communication is essential for leadership and decision-making, that facilitates a participatory approach, enhancing decision quality, and ensuring comprehensive solutions with broader acceptance. Effective communication in this context will transcend the traditional role of merely disseminating information and involves transmitting information and ensuring that it is understood and can be acted upon effectively by all stakeholders involved. Effective communication fosters collaboration within the team and the broader organization while creating a platform for sharing ideas, concerns, and solutions, encouraging a participatory approach to crisis decision-making. Effective collaboration can significantly enhance the quality of crisis decisions where quick and decisive action is often required. Understanding diverse perspectives is another critical element that effective crisis decision-making communication strategies must address.

The study revealed mental, emotional, and physical health as emerging themes representing a shift in our understanding of crisis decision-making. These themes bring to the forefront the essential human elements of decision-making, asserting that the well-being of leaders impacted their professional effectiveness and the vitality of their organizations. Mental health emerged as a pillar within the decision-making process, encompassing stress management, resilience, and clarity of thought. Leaders often found

themselves in high-stakes situations where managing stress became critical for maintaining effective decision-making capabilities. Emotional health focused on a leader's capacity to regulate their emotions and empathize with the emotions of others, linking closely to emotional intelligence. Emotionally healthy leaders contribute to creating a positive organizational climate where psychological safety is prioritized, and open communication is encouraged. Physical health, though sometimes underestimated in discussions about leadership, holds equal importance. A leader's physical condition directly influences their energy, concentration, and stamina, all crucial for meeting the rigorous demands of their role.

This study's discovery of mental, emotional, and physical health as emerging themes in crisis decision-making provided a holistic view of what it means to be a leader. This shift in perspective emphasized the crucial role of leaders' well-being, which is fundamental for their health, enhancing their leadership effectiveness, and contributing to the health of their organizations. By embracing these aspects of health, we can better support leaders in their roles and contribute to creating healthier, more resilient organizations.

This study explored the evolving nature of leadership in the face of global challenges, heightened stakeholder expectations, and the need for better crisis decision-making skills. This study suggested a shift towards more agile, inclusive, and collaborative leadership approaches as traditional, hierarchical leadership models became less effective. This study indicated that leaders fostered resilience within their organizations by prioritizing diversity and inclusion by committing to maintaining

psychological safety. Looking forward, the study suggests a new era of leadership where agility, health, and resilience are integral to organizational culture, enabling organizations to thrive in the face of adversity and contribute positively to a global community.

This study contributed significantly to leadership studies, particularly in understanding leadership degrees in the VUCA world. This study highlighted the need for a new paradigm of leadership that is more adaptive, internally driven, and attentive to the well-being of leaders, paving the way for more effective and resilient leadership in the face of future crises. This approach to understanding crisis decision-making that encompasses teamwork, decision-making constraints, communication strategies, and mental, emotional, and physical health; is vital for developing influential and resilient decision-makers in their roles. Such leaders are better equipped to handle the immense psychological and emotional toll that challenges can exert, ensuring the thriving of their organizations in crisis. This study offered a comprehensive view of decision-making and prepared leaders to make better decisions while navigating the global business world's volatility, uncertainty, complexity, and ambiguity.

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Appendix A: Interview Guide

1. Introduction:

Thank you for making time to meet with me today. I want to learn about your experience as a leader in crisis decision-making. To better understand your experience, I would like to ask some background questions.

2. Background questions:

I value the basic information from the background questionnaire and would like to build on that. I will use conversational prompts to clarify or further understand your thoughts and feelings.

How do you describe your work environment?

How did that change during the crisis?

How would you define a crisis in your work context?

Describe your decision-making process.

What kind of decisions do you make regularly?

What are the complex or easy decisions you make?

Explain how you experienced stress as an organizational leader during the crisis.

There are three concepts I will ask you about today that could have influenced your decision making; critical-thinking skills, Situational awareness, and Agility.

3. Critical-thinking skills:

Explain how you applied critical thinking as part of your decision-making process.

If the complexity of the crisis impacted the decision-making process, can you share an example?

Explain how your stress level affects your critical thinking skills.

Situational Awareness:

Were you aware of what was going on around you in the organization during the crisis?

If so, was this information factored into the crisis decision-making process?

With the volatility of the crisis, were you able to use situational awareness when making decisions?

If your stress level affected your situational awareness, please tell me how?

4. Agility:

Were you able to react with agility when making decisions in the crisis?

With ambiguity and uncertainty being present in the environment, did it influence your decision-making agility?

Can you share an example of your stress level impacting your ability to react with agility?

5. Closing:

I appreciate the information you have shared with me. Before we close the interview, is there anything else you would like to share about your experience as a leader in crisis decision-making? Is there anything you would like to ask me about the project or how you will have access to the study once it is completed?

Appendix B: Background Questionnaire

Title: The Experience of Organizational Leaders with Decision-Making in Crisis

Please complete the following questions to participate in the study.

Age: _____

Gender: _____

Race/Ethnicity: _____

Years of experience as an organizational leader: _____

Specify the type of organization where you served as a leader during

a crisis: _____

Company size: _____

Nature of the crisis: _____

Leadership style: _____