Decision-Making in Crisis Situations: How Do Leaders Manage Scarce Resources?

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ABSTRACT

Crises pose significant challenges for leaders, particularly in the management of scarce resources. The objective of this study was to explore the decision-making processes of leaders across various sectors during crisis situations, focusing on how they navigate the complexities of strategic decision-making, leadership challenges, and organizational dynamics. This qualitative study employed semi-structured interviews with 20 leaders experienced in crisis management from sectors including healthcare, emergency services, business, and non-profit organizations. Data collection aimed at achieving theoretical saturation was guided by a set of pre-determined, open-ended questions allowing for in-depth exploration of individual experiences and strategies. The interviews were transcribed, coded, and analyzed to identify recurring themes and patterns. Three main themes were identified: Strategic Decision-Making, Leadership Challenges, and Organizational Dynamics. Strategic Decision-Making encompassed risk assessment, resource allocation, long-term planning, stakeholder engagement, and decision-making styles. Leadership Challenges included communication barriers, ethical dilemmas, and stress and pressure management. Organizational Dynamics covered team dynamics, change management, leadership influence, resource management, and policy and governance. Each theme and its categories highlighted specific strategies and challenges faced by leaders in managing scarce resources effectively during crises. The study highlights the critical importance of strategic decision-making, robust communication, ethical leadership, and adaptive organizational policies in crisis management. Leaders who effectively navigate these aspects are better equipped to handle crises, suggesting a need for targeted training and policy development to enhance crisis preparedness and leadership competencies.

Keywords: Crisis Management, Leadership, Strategic Decision-Making, Resource Allocation, Ethical Dilemmas, Organizational Dynamics.

1.   Introduction

In times of crisis, the capacity of leaders to make sound, ethical decisions is tested most rigorously, particularly when resources are scarce and stakes are high. The increasing frequency of global crises—from pandemics to natural disasters—has brought leadership under the microscope, prompting a deeper investigation into how leaders manage limited resources in high-pressure situations (FaghihKhorasani & FaghihKhorasani, 2022; Heydari & Morid, 2020; Khankeh et al., 2011).

The importance of leadership in crisis scenarios cannot be understated. Alkhawlani, Bohari, and Shamsuddin (2019) emphasize the critical role of transformational leadership in navigating organizational crises, particularly in volatile regions like Yemen, where political and resource-based uncertainties prevail (Alkhawlani et al., 2019). Similarly, leadership competencies in crisis situations have been extensively studied across various contexts, including healthcare emergencies and disaster preparedness (Knebel et al., 2014; Yang et al., 2020). These studies highlight the necessity for leaders to adapt quickly, make decisive actions, and maintain organizational integrity amidst turmoil.

Resource allocation during crises forms a significant part of leadership challenges, as decisions must often be made under conditions of uncertainty and extreme pressure. Wooten and James (2008) discuss how leadership competencies are crucial in linking crisis management strategies, particularly in the allocation of scarce resources (Wooten & James, 2008). The ethical dimensions of such decisions are complex, as leaders balance the immediate needs against long-term consequences (Kuschner et al., 2007). This complexity is further elucidated by Benali, Ghomari, and Zemmouchi-Ghomari (2018), who explore collaborative decision-making in crisis management through crowdsourcing, providing a novel approach to engaging diverse stakeholders in emergency responses (Benali et al., 2018).

Furthermore, the environmental aspect of crisis management, particularly concerning the management of natural resources, has been a growing area of concern. Studies like those by Atighechian et al. (2016) and Maghrebi et al. (2021) provide insights into how macro and micro environmental factors influence resource management strategies, emphasizing the need for leaders to integrate environmental considerations into their decision-making frameworks (Atighechian et al., 2016; Maghrebi et al., 2021).

The role of political commitment also plays a pivotal role in the effectiveness of leadership during crises. Aryantiningsih, Giatman, and Yanti (2021) analyze political commitment in the tuberculosis treatment program, illustrating how sustained political will is critical in overcoming public health challenges (Aryantiningsih et al., 2021). This reflects broader findings by Post et al. (2022), who examine how different leadership behaviors influence decision-making in crisis management teams, suggesting that the style of leadership can significantly impact the efficiency and outcomes of crisis response (Post et al., 2022).

In synthesizing these diverse perspectives, this study seeks to identify common themes and strategies employed by leaders across different sectors and crises. The methodology focuses on qualitative analysis through semi-structured interviews with leaders who have navigated crises, aiming for theoretical saturation to ensure a comprehensive understanding of the decision-making processes involved. This approach allows for a nuanced exploration of how leaders manage scarce resources, adapt to rapidly changing scenarios, and maintain stakeholder engagement under duress.

By examining these dimensions, the study contributes to a deeper understanding of the multifaceted role of leadership in crisis management. It provides valuable insights for both practitioners and theorists in improving leadership strategies and outcomes in future crises. This exploration is crucial, as the ability of leaders to effectively manage scarce resources can determine the resilience of organizations and communities in the face of global challenges.

2.   Methods and Materials

2.1.   Study Design and Participants

This study employed a qualitative research methodology to explore how leaders manage scarce resources during crisis situations. The primary method of data collection was semi-structured interviews, which provided the flexibility to probe deeply into the experiences and decision-making processes of the participants.

Participants were selected using purposive sampling to ensure a wide range of perspectives from leaders who have experienced crisis management scenarios across various sectors, including healthcare, emergency response, and business. The selection aimed to gather diverse insights based on different types of crises and resource limitations.

Theoretical saturation was used as a criterion for determining the sample size. This was achieved when

additional interviews no longer contributed new or relevant insights to the research questions, indicating that the collected data was sufficient to understand the patterns and themes concerning leaders' decision-making in crisis situations.

Prior to conducting the interviews, all participants were informed about the study's goals, the nature of their participation, and their rights to confidentiality and withdrawal. Informed consent was obtained from each participant.

2.2.   Measures

2.2.1.   Semi-Structured Interview

The semi-structured interviews were guided by a set of predetermined questions with the allowance for follow-up inquiries to explore specific themes as they emerged. The interview questions focused on past crisis scenarios, decision-making processes, strategies for resource allocation, and the impact of these decisions on the outcomes of the crisis.

2.3.   Data Analysis

The interview transcripts were analyzed using thematic analysis to identify common themes and patterns in the decision-making processes during crises. This involved coding the data in iterative cycles, refining and grouping codes into themes that accurately represent the participants' experiences and perspectives on managing scarce resources.

3.   Findings and Results

The study involved twenty participants who held leadership roles across various sectors, including healthcare (n=6), emergency management (n=5), business (n=7), and non-profit organizations (n=2). The demographic profile of the participants included 12 males and 8 females. The age distribution ranged from 35 to 60 years, with the majority (n=9) falling into the 41-50 age bracket, followed by those aged 51-60 (n=7), and the least represented were those aged 35-40 (n=4). Geographically, the participants were from diverse locations, with 10 from urban centers and 10 from rural areas, ensuring a broad perspective on managing crises in different contexts.

Table 1

The Results of Thematic Analysis

Categories	Subcategories	Concepts
Strategic Decision-Making	Risk Assessment	Evaluating threats, Prioritizing needs, Impact analysis
	Resource Allocation	Budget constraints, Prioritizing departments, Rationing
	Long-term Planning	Sustainability, Future scenarios, Continuity plans
	Stakeholder Engagement	Communicating with investors, Community relations, Transparency
	Decision-making Styles	Autocratic, Consultative, Collaborative
Leadership Challenges	Communication Barriers	Misinformation, Delayed updates, Language barriers
	Ethical Dilemmas	Equity vs. efficiency, Life-or-death decisions, Transparency vs. secrecy
	Stress and Pressure Management	Emotional resilience, Delegation, Time management
Organizational Dynamics	Team Dynamics	Team morale, Conflict resolution, Role clarity
	Change Management	Implementing new processes, Resistance to change, Training
	Leadership Influence	Leading by example, Authority, Inspiring trust
	Resource Management	Inventory control, Supply chain logistics, Resource forecasting
	Policy and Governance	Regulatory compliance, Policy development, Crisis standards

Participants expressed various insights that correspond to the identified themes and subthemes. For example, under the category of Strategic Decision-Making, one leader stated, "In crisis situations, it's about quickly assessing what's at stake and making decisions that prioritize the immediate needs without losing sight of long-term impacts." This comment reflects the concepts identified in the subcategory of Risk Assessment.

In discussing Resource Allocation, another participant noted, "We're constantly balancing between what's needed urgently and what we can afford to delay. Sometimes, it feels like we're making impossible choices." This sentiment captures the dilemma within the subcategory of Resource Allocation, highlighting the challenging nature of prioritizing resources under constraints.

Leadership Challenges were also prominently discussed. One leader described the Communication Barriers by saying,

"Effective communication is our biggest hurdle. Misinformation can spread faster than the truth in times of crisis, making our job even harder." This quote emphasizes the difficulties in managing information flow during emergencies.

Regarding Ethical Dilemmas, a participant reflected, "You're often faced with decisions where no choice seems right. It's about finding the least harmful option." This captures the essence of ethical decision-making in crisis contexts, as identified in the subcategory of Ethical Dilemmas.

Finally, in addressing Organizational Dynamics, a participant illustrated the importance of Leadership Influence, stating, "How I act sets the tone for the whole team. My role is to inspire trust and steer the ship, even when the water is incredibly rough." This highlights the critical role of leadership influence in shaping organizational responses during crises.

4. Discussion and Conclusion

In this study, three main themes were identified as crucial in the decision-making processes of leaders managing scarce resources during crises: Strategic Decision-Making, Leadership Challenges, and Organizational Dynamics. Each main theme encompassed several categories, revealing the depth and complexity of leadership during crises. Strategic Decision-Making included categories such as Risk Assessment, Resource Allocation, Long-term Planning, Stakeholder Engagement, and Decision-making Styles. Leadership Challenges covered Communication Barriers, Ethical Dilemmas, and Stress and Pressure Management. Organizational Dynamics included Team Dynamics, Change Management, Leadership Influence, Resource Management, and Policy and Governance.

The Strategic Decision-Making theme highlighted the importance of carefully assessing risks and allocating resources effectively. The Risk Assessment category revealed concepts such as evaluating threats, prioritizing needs, and conducting impact analyses. Resource Allocation was characterized by concepts like budget constraints, prioritizing departments, and rationing supplies. Long-term Planning included sustainability, future scenario planning, and continuity plans, reflecting leaders' foresight and preparation for enduring crises. Stakeholder Engagement underscored the importance of communicating with investors, maintaining community relations, and ensuring transparency. Decision-making Styles varied from

autocratic to collaborative, indicating the range of approaches leaders adopt based on the crisis context.

Leadership Challenges encompassed the difficulties leaders face in maintaining clear and effective communication, ethical integrity, and personal resilience. The Communication Barriers category included concepts such as misinformation, delayed updates, and language barriers, which often complicate crisis response efforts. Ethical Dilemmas highlighted the tough choices leaders make, balancing equity versus efficiency, life-or-death decisions, and the tension between transparency and secrecy. Stress and Pressure Management involved concepts like emotional resilience, delegation, and time management, critical for sustaining leader effectiveness over the prolonged duration of a crisis.

Organizational Dynamics focused on how internal structures and policies adapt during crises. Team Dynamics involved concepts like team morale, conflict resolution, and role clarity, which are vital for cohesive team operation under stress. Change Management revealed the challenges of implementing new processes, resistance to change, and the necessity for adequate training. Leadership Influence was evident through leading by example, asserting authority, and inspiring trust. Resource Management included managing inventory control, navigating supply chain logistics, and forecasting resource needs. Policy and Governance involved adapting regulatory compliance, developing crisis-specific policies, and setting crisis standards, highlighting the role of governance in crisis preparedness and response.

The theme of strategic decision-making was predominant among the leaders interviewed, highlighting the necessity of assessing risks, allocating resources strategically, and engaging stakeholders. This finding aligns with Alkhawlani, Bohari, and Shamsuddin (2019), who emphasized that transformational leadership is crucial in effectively navigating organizational crises by fostering an environment that prioritizes strategic planning and stakeholder engagement (Alkhawlani et al., 2019). Similarly, the importance of resource allocation decisions was evident in the research by Wooten and James (2008), who noted that leadership during crises involves the critical task of balancing scarce resources while ensuring ethical decision-making processes are upheld (Wooten & James, 2008).

Leadership challenges, particularly around communication barriers and ethical dilemmas, were frequently highlighted by participants. These challenges resonate with the findings of Kuschner, Pollard, and Ezeji-

Okoye (2007), who discussed the ethical complexities involved in triaging during public health emergencies (Kuschner et al., 2007). The ethical dilemmas faced by leaders in this study—especially in terms of equity and efficiency—reflect the ongoing debate in the literature about the best practices for ethical decision-making in resource-limited settings (Knebel et al., 2014).

Communication emerged as a critical challenge, underscoring the findings of Benali, Ghomari, and Zemmouchi-Ghomari (2018), who explored the role of collaborative decision-making in crisis management (Benali et al., 2018). Effective communication was noted as essential for managing not only internal team dynamics but also for engaging with external stakeholders, a point also supported by Post et al. (2022), who found that leadership styles significantly influence team decision-making processes (Post et al., 2022).

The impact of leadership on organizational dynamics was another significant theme. This study's findings underscore the role of leaders in influencing team dynamics and managing change, which are crucial for adapting organizational practices in response to crises. This observation is supported by Yang et al. (2020), who detailed the formation of a regional healthcare coalition in San Diego County as a response to COVID-19, illustrating how leadership can effectively mobilize and manage resources in a coordinated effort across various organizations.

Moreover, the influence of leadership on policy and governance, as observed in this study, echoes the findings of Heydari and Morid (2020), who discussed the significance of aligning water and agricultural policies with leadership initiatives in adapting to climate change. These findings highlight the crucial role of leaders in not only managing immediate crisis responses but also in steering organizational policies that align with long-term strategic goals.

The results of this study enrich the existing body of knowledge by confirming that effective crisis management is not solely dependent on the availability of resources but also heavily relies on the strategic capabilities of leaders to manage these resources. As indicated by Dijk and Cremer (2006), the self-benefiting behaviors in resource allocation need to be carefully managed by leaders to avoid biases that could exacerbate crisis situations. Furthermore, the role of ethical frameworks in guiding leaders' decisions, as discussed by Kuschner, Pollard, and Ezeji-Okoye (2007) and further elaborated by Knebel et al. (2014), underscores the

ethical tensions that leaders must navigate when making tough decisions about resource distribution.

This study revealed that leaders in various sectors manage scarce resources during crises through strategic decision-making, addressing leadership challenges, and navigating complex organizational dynamics. Specifically, the findings highlighted the importance of risk assessment, resource allocation, and stakeholder engagement within strategic decision-making. Leadership challenges such as communication barriers and ethical dilemmas were pervasive, influencing the decision-making process. Furthermore, organizational dynamics, including team dynamics and policy governance, played crucial roles in how resources were managed and crises were navigated.

The study confirms that effective crisis management transcends the mere availability of resources; it crucially depends on a leader's ability to strategically think, communicate effectively, and ethically manage resources. Leaders who excel in these areas are better equipped to guide their organizations through crises, ensuring not only survival but also the sustainability of their operations and the well-being of their stakeholders. The insights gained from this research underline the multifaceted role of leadership in crisis situations and provide a foundation for enhancing leadership strategies in crisis management.

This study is not without limitations. The qualitative nature of the research, while providing in-depth insights, limits the generalizability of the findings. The study's reliance on semi-structured interviews also poses limitations related to the subjective interpretations of both the respondents and the researcher. Additionally, the sample was confined to 20 participants, which, although sufficient for theoretical saturation, might not capture all possible perspectives within different industries or cultural contexts.

Future research should aim to expand the demographic and geographic diversity of participants to include a broader array of crisis scenarios and leadership styles. Quantitative studies could be employed to test the relationships between leadership strategies and outcomes in crisis management, potentially offering a more generalized understanding of effective practices. Additionally, comparative studies between sectors and cultures could elucidate how contextual factors influence leadership effectiveness in crisis management.

The findings of this study have significant implications for practice. Training programs for leaders should incorporate modules on ethical decision-making, strategic resource allocation, and effective communication to better

prepare them for crisis situations. Organizations should also consider establishing clear guidelines and protocols for crisis management that are regularly updated and practiced. Furthermore, fostering a collaborative environment where stakeholders are actively engaged and informed can enhance trust and improve the efficacy of crisis management efforts. The study underscores the necessity for leaders to be adaptable, continuously learn, and apply a comprehensive understanding of both internal organizational dynamics and external environmental factors to succeed in managing crises effectively.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethics Considerations

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were considered.

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