

Psychology of Decision Making in Crisis Management

Arva Syadiva ^{1*}, Kinanti Dhea ²

^{1,2} Universitas Semarang, Indonesia

Email : psikologi@usm.ac.id *

Abstract: *This study investigates psychological factors influencing decision-making in crisis management, a crucial area given the frequent observation of suboptimal decisions in real-life crises. We hypothesize that cognitive biases and negative emotions significantly impair decision quality. Using a structured online questionnaire, data were collected from 10 crisis management professionals. The findings, while exploratory due to the small sample size, indicate a negative trend: higher levels of cognitive biases and negative emotions tend to correlate with lower decision quality. Statistical significance could not be established. Despite these limitations, this study highlights the important role of psychological aspects in crisis decision-making, emphasizing the need for further research with larger samples to inform more effective crisis preparation.*

Keywords: *Cognitive biases, Crisis management, Decision-making, Emotions, Psychology*

1. INTRODUCTION

Crisis management is crucial for organizations, yet decisions within them are often irrational (Kahneman, 2011). This highlights the importance of understanding the psychology of decision-making in crises. Recent research highlights how cognitive biases—such as confirmation bias and the framing effect (Tversky & Kahneman, 1974)—and negative emotions (Lerner et al., 2015) influence decision quality under stress. There is a gap in the integration of psychology with existing crisis management models.

This research aims to fill this gap by: 1) identifying cognitive biases in crises; 2) exploring the role of emotions; and 3) developing a framework that integrates psychological aspects into crisis decision-making. The benefits include enriching theory and providing practical guidance for bias mitigation training and strategies. Based on Prospect Theory (Kahneman & Tversky, 1979) and Dual-Process Theory (Stanovich & West, 2000), we hypothesize that crisis stress increases cognitive biases and negative emotions, leading to suboptimal decisions, and that psychological interventions can improve crisis decision quality.

2. METHOD

This study examines the influence of cognitive biases (such as the availability heuristic, confirmation bias, framing effect) and negative emotions (anxiety, stress) on the quality of crisis decision-making. Approximately 10 experienced crisis management professionals will participate. Data will be collected through a structured online questionnaire containing scenarios and rating scales, after the instrument has been pilot-tested. Respondent

confidentiality is guaranteed. Data will be analyzed using statistical software. Techniques used include descriptive statistics, Pearson correlation, multiple regression, and validity and reliability tests (CFA and Cronbach's Alpha) to test the hypotheses.

3. RESULTS

This section presents the main findings from the data analysis, outlining the demographic characteristics of the respondents, the results of the instrument's validity and reliability tests, and the testing of the research hypotheses.

A total of 10 respondents successfully completed the online questionnaire, meeting the established inclusion criteria. Six men and four women, aged 35-55, were included. The majority (70%) had more than seven years of experience in managerial positions within crisis management teams. Respondents came from the finance, technology, and manufacturing sectors.

Due to the very limited number of respondents (N=10), Confirmatory Factor Analysis (CFA) and Cronbach's Alpha calculations could not be conducted with sufficient validity and representativeness. However, for exploratory purposes, the questionnaire items were visually assessed for relevance to the constructs being measured. The instrument's internal reliability could not be statistically confirmed with this sample size.

Hypothesis 1: The Effect of Cognitive Bias on Decision-Making Quality

Crisis correlation analysis (exploratory due to the small sample size) indicated a negative relationship between cognitive bias and the quality of crisis decision-making. Respondents reporting higher cognitive bias tended to report lower decision quality. However, with a sample size of 10 individuals, the Pearson correlation ($r = -0.35$) was not statistically significant ($p > 0.05$), so there is no strong basis for drawing solid conclusions from this data.

Hypothesis 2: The Influence of Negative Emotions on Decision-Making Quality

Exploratory findings indicate that negative emotions tend to be negatively related to the quality of crisis decision-making. Respondents who reported higher levels of negative emotions in a crisis tended to rate their decisions as less than optimal. However, similar to Hypothesis 1, the Pearson correlation ($r = -0.42$) was not statistically significant ($p > 0.05$) given the small sample size.

Hipotesis 3: Dampak Gabungan Bias Kognitif dan Emosi Negatif terhadap Kualitas

Crisis decision-making Multiple regression analysis could not be conducted or interpreted meaningfully with 10 respondents due to limited data and unmet statistical assumptions. Therefore, the combined relationship between cognitive bias and negative emotions on the

quality of crisis decision-making could not be statistically evaluated in this study.

4. DISCUSSION

Psychologically, high stress conditions can activate the fast and intuitive thinking system (System 1) as described in the Dual-Process Theory by Stanovich and West (2000), while the slow and reflective thinking system (System 2) becomes less dominant. When individuals are under crisis pressure, they tend to rely on heuristics such as availability bias and confirmation bias, which speed up the decision-making process but reduce its accuracy. Decision-making during a crisis is often influenced by emotional stress, limited information, and limited time. Simon's theory of bounded rationality suggests that humans are unable to make fully rational decisions due to limited thinking power and data. Under stressful conditions, individuals often rely more on intuition or experience, as described in Klein's Recognition-Primed Decision model. Research from the American Psychological Association (APA, 2021) supports these findings by stating that chronic stress and negative emotions such as anxiety can impair judgment and lead individuals to make more defensive or impulsive decisions. The study indicates that the brain under stress tends to magnify the perception of threat and inhibit the executive functions necessary for logical thinking. Theory (Kahneman & Tversky, 1979), which suggests that individuals in high-risk situations are more likely to make decisions based on perceived losses rather than potential gains. This explains why negative emotions such as fear or anger can trigger exaggerated responses, such as extreme decision-making or avoidance of responsibility.

5. CONCLUSION

This study demonstrates that psychological factors such as cognitive biases and negative emotions have the potential to degrade decision-making quality in crisis situations. Although the small sample size limits statistical significance, exploratory results indicate that individuals with high levels of bias and emotional distress tend to make suboptimal decisions. These findings support frameworks such as Prospect Theory and Dual-Process Theory, which argue that decisions under high stress are often based on quick intuition that is prone to bias. Emotions such as anxiety can distort risk perception and impair thought processes, while cognitive limitations inhibit logical information processing. Integrating psychological approaches into crisis management training and strategies is crucial. Measures such as increasing bias awareness, emotion management training, and effective team communication can help improve decision-making quality. Further studies with a broader sample size are

needed to strengthen these findings and support the development of more adaptive and evidence-based crisis decision-making systems.

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