

# Building Crisis-Ready Graduates: Mediating Effects of Response Strategy on University Students' Preparedness and Communication Competency

Noor Khairin Nawwarah Khalid & Aida A.Rahman

Language Academy, Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia, Johor Bahru, 81310, Johor, Malaysia

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## ABSTRACT

This study investigates the mediating role of crisis response strategy in the relationship between students' preparedness and crisis communication competency among undergraduates in a Malaysian higher education. Grounded in Situational Crisis Communication Theory (SCCT), the research adapts three core constructs namely crisis type identification, responsibility attribution, and strategic response selection to an educational context. A total of 419 undergraduate students from Universiti Teknologi Malaysia has participated in a cross-sectional survey. Using Hayes' PROCESS macro (Model 4), mediation analyses revealed that crisis response strategy significantly mediated all three hypothesised pathways: understanding of crisis types (H1), perceived preparedness (H2), and responsibility attribution (H3). Partial mediation was observed in H1 and H3, while H2 demonstrated full mediation. These findings highlight the central role of strategic application in transforming students' cognitive, ethical, and experiential readiness into effective crisis communication performance. The study extends SCCT beyond organizational actors to pre-professional learners and emphasizes the influence of collectivist cultural norms on responsibility framing and strategy selection. Practical implications for curriculum reform include integrating simulation-based learning and culturally responsive pedagogy into communication education. The findings contribute to theory by repositioning SCCT as both a diagnostic and developmental framework within higher education.

**Keywords:** Crisis communication, student preparedness, SCCT, higher education, Malaysia, communication competency, mediation analysis

## INTRODUCTION

In today's volatile corporate environment, organizations face increasingly complex challenges such as financial instability, reputational threats, and internal crises. These situations require effective crisis communication, where employees must respond with empathy, clarity and strategic foresight. Although many fresh graduates enter the workforce equipped with theoretical knowledge, they often struggle to apply it when they are in real-world, high-pressure situations. Previous research consistently shows that this competency gap hampers organizational crisis management efforts (Newman et al., 2022; Williams & Schaefer, 2021). Despite the inclusion of crisis communication in course syllabi, previous research (Sharadgah & Sa'di, 2020) found assessment practices in higher education frequently fail to evaluate students' actual preparedness. In-class assessments such as basic group presentations and written tests usually neglect essential skills such as decision-making under stress, audience-specific messaging, and emotional regulation. The separations between intended learning outcomes and assessment methods have raised concern among educators, employers, and policymakers alike. This problem is particularly salient in Malaysia. The Twelfth Malaysia Plan (12MP) highlights human capital development and workforce resilience as national priorities. However, many graduates still have inadequate training in applied communication, strategic thinking and stakeholder engagement during workplace crises (Liu-Lastres et al., 2023; Seow et al., 2019). A continuous reliance on rote learning further restricts the cultivation of 21st-century competencies such as adaptability, emotional intelligence and ethical judgment (Kaur

et al., 2024). Morley and Jamil (2021) also emphasise that the absence of authentic, performance-based assessments can impair graduates' readiness to cope with high-stakes communication scenarios

This study addresses the gap by exploring how student preparedness translates into crisis communication competency, particularly through the mediating role of crisis response strategy. Drawing on the Situational Crisis Communication Theory (SCCT), the research reconceptualizes competency not merely as a product of knowledge acquisition, but as the result of behavioral and ethical decision-making in simulated professional settings. The framework positions strategic response selection as the key mechanism by which cognitive understanding and training exposure are converted into communicative action.

The study is guided by the following research objectives:

1. To assess the mediating effect of crisis response strategy on the relationship between students' understanding of crisis types and their crisis communication competency;
2. To assess the mediating effect of crisis response strategy on the relationship between students' perceived preparedness (training and workplace readiness) and their crisis communication competency; and
3. To assess the mediating effect of crisis response strategy on the relationship between students' responsibility attribution and their crisis communication competency.

These objectives form a multidimensional framework to evaluate cognitive, affective, and behavioral dimensions of learning. The findings offer empirical insights for aligning curriculum design, assessment methods, and industry expectations within Malaysian higher education, particularly in the communication, business, and management disciplines.

The remainder of this paper is organized as follows. The next section presents a critical review of relevant literature and the theoretical framework. This is followed by the methodology, detailing research design, instrument development, and data analysis procedures. The findings are then reported and discussed in light of the research questions and SCCT. Finally, the paper concludes with theoretical and practical implications, limitations, and directions for future research.

## LITERATURE REVIEW

### Crisis Communication Competency in Higher Education

The term "crisis" has long been recognized as a disruptive condition that threatens the stability and functionality of organizations. Sawalha et al. (2013) defines a crisis as a deviant condition that presents significant hazards, often accompanied by media scrutiny and requiring rapid decision-making that may lead to abrupt shifts in policy or operations.

Early conceptualizations by Hermann (1963) identified three defining features of crisis: the threat to core organizational values, the element of surprise, and the necessity for urgent response. More recent perspectives, such as those of Coombs (2010a), emphasize the perceptual nature of crises by viewing them as situations that stakeholders believe pose serious reputational or operational risks, regardless of objective severity. Hutchins and Wang (2008) propose a useful typology distinguishing between natural crises and human-induced crises. According to them, the former crises are natural disasters meanwhile the latter are ethical violations or corporate misconduct. The evolving definitions show the complexity and context-dependence of crisis phenomena, demanding deep understanding and well-considered response strategies, especially from those who are just entering the workforce.

Crisis communication, as a field, has evolved alongside with crisis theory, progressing from linear stage-based models to a more dynamic approaches that account for perception, stakeholder engagement and reputational management. Fink's (1986) crisis life cycle model, which consists of pre-crisis, crisis, and post-crisis stages, provided the groundwork for systematic and structured communication planning. Coombs (2007, 2012, 2015,

2022), through the development of Situational Crisis Communication Theory (SCCT), emphasized that effective communication must be tailored to the crisis type, the degree of responsibility attributed, and the organization's prior reputation. As such, crisis communication is no longer viewed as a reactive strategy but as an embedded organizational competency that can mitigate damage and restore stakeholder trust.

Within the higher education setting, crisis communication competency has become increasingly important as universities aim to produce graduates who are not only employable but also capable of adapting and remaining resilient in unpredictable professional environments. Current employers expect fresh graduates and new workforce entrants to demonstrate more than just theoretical knowledge. They must exhibit the ability to act decisively under pressure, convey clear and persuasive messages, and manage diverse stakeholder expectations (Fadhil et al., 2021). These demands are particularly acute during organizational crises, where the margin for error is minimal and the consequences of miscommunication can be severe. Crisis communication competency thus encompasses a suite of critical skills, including clarity in messaging, emotional intelligence, empathy, stakeholder analysis, and strategic response formulation.

The need to develop crisis-ready graduates has become an urgent educational priority. As graduates transition into complex organizational systems, they are likely to encounter high-stakes scenarios where they must represent their teams, departments, or organizations during moments of uncertainty. Internal crisis communication, in particular, has emerged as a crucial domain where young professionals must understand established communication protocols and execute responses that align with organizational goals (Frandsen & Johansen, 2016). Guzzo et al. (2021) assert that the ability to engage constructively with stakeholders during crises significantly enhances an individual's value to an organization and contributes to long-term organizational resilience.

Despite its importance, crisis communication remains underdeveloped in most undergraduate curricula (Schwarz, 2024). While elements of strategic communication may be introduced, these are rarely contextualized within the high-pressure dynamics of crisis response. This gap has direct implications for graduate employability, as students who are not trained to apply communication strategies in crisis situations may falter when faced with urgent, emotionally charged, or reputationally sensitive challenges. Thus, embedding crisis communication as a core competency, supported with performance-based assessments and experiential learning, is essential in aligning higher education outcomes with the demands of today's organizational environments.

### **Crisis Communication Gaps among University Graduates**

While crisis communication is increasingly acknowledged as one of the critical workplace competencies, recent studies have highlighted a persistent gap between the theoretical instruction provided in university settings and the practical realities of crisis situations in organizational environments. Newman et al. (2022) found that many graduates enter the workforce with a strong conceptual foundation yet most of them lack the ability to perform effectively in high-pressure environments that demand real-time communication, emotional regulation and strategic decision-making. Similarly, Han (2023) reported that fresh graduates always struggle with workplace anxiety and stress, especially when they are tasked to manage sensitive or ambiguous crisis events. Collectively, these findings suggest that theoretical exposure to communication models, whether strategic or interpersonal contexts, does not adequately prepare students to handle the complex and fast evolving of real-world crisis scenarios.

This theoretical-practical mismatch is especially evident in the Malaysian higher education context, where the focus on academic achievement, content mastery, and standardized assessments often overshadow the development of applied professional competencies (Zaini et al., 2022). University curricula are frequently dominated by lectures, written exams and textbook-driven instruction. This offers limited opportunities for students to engage in authentic and experiential learning activities. As a result, students are evaluated primarily based on their ability to recall information instead of their capacity to apply communication strategies under pressure or in ethically complex crisis contexts. This misalignment between what university students are taught and what they are expected to perform in the workplace compromises the goal of producing crisis-ready graduates who can actively contribute to organizational resilience.

The need for practical crisis communication training has been emphasized by numerous scholars (Ornellas et al., 2019; Mikusova et al., 2019). Agilan (2025) and Fantinelli et al. (20204) argue that even the most well-designed theoretical frameworks are of limited value unless students are trained to apply them in dynamic and unpredictable situations. In the Malaysian, Zaini et al. (2022) observed that many universities continue to prioritize cognitive knowledge over skill development, a practice that impairs university students' readiness for complex, real-time workplace demands. Succi (2019) also noted a gap between university instruction and employer expectations, particularly in relation to soft skills such as critical thinking, decision-making and persuasive communication, all of which are vital during crisis situations.

To bridge these gaps, scholars have advocated for the adoption of scenario-based learning, stakeholder simulations and performance-based assessment within communication curricula. These approaches not only strengthen students' applied communication capacity but also enable university educators to evaluate how effective students respond to critical variables such as audience perception, responsibility attribution, and reputational considerations. By embedding these strategies into academic programs, it allows universities to move beyond passive content delivery and foster students' ability to perform under pressure, a skill that is important to crisis readiness. Building on this body of work, this study quantitatively examining the extent to which students' understanding of crisis communication concepts translates into applied competency, with particular attention to training exposure and workplace preparedness. It argues that integrating crisis communication training into Malaysian university programs is no longer optional, but important for preparing graduates to meet the evolving challenges of the contemporary professional environment.

### **Training and Workplace Readiness**

As organizations face increasingly complex crises, there is a growing need to embed practical crisis communication training within higher education curricula. While it is important for university students to master theoretical knowledge, students must develop applied skills that enable them to perform effectively in high-pressure situations. Exposure to realistic crisis scenarios through classroom activities like simulations, role-play exercises and case-based learning has been shown to enhance improve response timing, decision-making skills and enhance stakeholder engagement (Yook, 2024; Guzzo et al., 2021). These experiential methods provide opportunities for students to test strategic messaging under simulated pressure, internalize crisis typologies and receive feedback in controlled and low-risk settings.

Simulations have been widely recognized as a high-impact pedagogical tool in communication education. They enable university students to take on professional roles such as spokespersons, media liaisons or crisis managers while navigating dynamic scenarios that mirror real-world reputational threats (O'Donell, 2022). These active learning experiences enable the transfer of theoretical knowledge like SCCT into practical decision-making, heightening students' sensitivity to factors like responsibility attribution and stakeholder perception. Role-playing, when combined with scenario-based assessments, also cultivates reflexive thinking, emotional intelligence and the ability to adapt communication strategies under pressure, and these traits are essential for producing graduates who are well-prepared to manage crises effectively.

Workplace readiness has been recognized as one of the critical predictors of applied communication skills. Studies indicate that graduates who have received prior training or exposure to crisis scenarios exhibit higher confidence and competence in managing stakeholder expectations during real crises (Zaini et al., 2022; Dwiedienawati et al., 2021;). This evidence holds particular significance in the Malaysian higher education context, where curricula often emphasize content mastery and written examinations over situational agility and applied performance (Deliva, 2023; Kaur et al., 2024). This misalignment between university outputs and industry needs reinforces the urgency of intergating outcome-based, performance-driven assessments in crisis communication education.

This study frames workplace readiness, shaped through experiential training, as a key variable in evaluating crisis communication competencies. By examining students' exposure to formal training alongside their perceived preparedness for professional crisis scenarios, the research seeks to determine how these factors affect the selection of response strategies, attribution of crisis responsibility, and ability to manage organizational



reputation. In doing so, the study supports curriculum reform initiatives aimed at aligning graduate capabilities with the demands of crisis-intensive work environments.

### **Crisis Response Strategy as a Mediating Mechanism**

Situational Crisis Communication Theory (SCCT) proposes the effectiveness of crisis communication does not only depend on crisis type and responsibility attribution, but also on the strategic response chosen. Coombs (2010b) identifies four main categories of crisis response strategies which are deny, diminish, rebuild, and bolster. Each one of those strategies suited to different crisis contexts and it shapes how audiences interpret the organization's actions and influence reputational outcomes (Coombs, 2020). In an educational setting, the ability of students to select appropriate crisis responses reflects their internalization of strategic thinking and practical application of theory. Therefore, this study conceptualizes crisis response strategy as a mediating mechanism that explains how preparedness factors such as understanding crisis types, workplace readiness, training exposure, and responsibility attribution lead to competent crisis communication.

### **Assessment Practices in Higher Education**

Assessment is a pivotal component in determining whether students have achieved intended learning outcomes, particularly in communication education where applied competencies are crucial. In theory, higher education institutions are expected to align learning outcomes, teaching methods, and assessments (Hamdoun, 2023). This process is known as constructive alignment (Biggs & Tang, 2011). Similarly, Bloom's taxonomy has traditionally guided educators to scaffold cognitive learning from lower-order thinking (e.g., recall) to higher-order skills (e.g., analysis, evaluation, and creation). However, despite these frameworks, a persistent gap remains between intended learning outcomes and actual assessment practices, particularly in evaluating students' ability to perform in dynamic, real-world situations such as crisis communication.

Traditional assessment models in Malaysian universities still rely heavily on written examinations, closed-ended quizzes, and group presentations, which prioritize content memorization and passive understanding (Deliva, 2023). These methods often fail to capture students' adaptive reasoning, emotional regulation, and strategic communication under pressure. Those skills are vital in crisis scenarios, but they cannot be measured through pen-and-paper tests. Such methods are ill-suited for assessing crisis communication competencies, which require nuanced decision-making, timing, and audience awareness (Yook, 2024). This is particularly problematic when institutions claim to foster 21st-century skills without aligning those goals to how students are evaluated.

To address this disconnection, researchers and educators (Davis et al., 2023; Ahmad, 2020) have advocated for authentic and performance-based assessment models including simulations, scenario-based tasks, timed stakeholder responses, and reflective analyses of communication strategy. Compared to the traditional formats, these assessments require students to demonstrate applied competencies in realistic contexts as it mirrors workplace demands and enabling the measurement of crisis readiness. Liu (2023) and Norris et al. (2023) argue that such methods not only reveal cognitive understanding but also test emotional intelligence, adaptability, and professional judgment which are important during organizational crises.

In Malaysia, these concerns are reflected in national policy goals. The Twelfth Malaysia Plan (12MP) emphasizes human capital development and workforce adaptability as key pillars of economic resilience. Similarly, the Malaysian Qualifications Agency (MQA) outlines a shift toward competency-based education, urging institutions to ensure that assessment methods reflect industry needs and graduate capabilities. However, in practice, curriculum reviews and external program audits often focus more on documentation compliance than on whether students can demonstrate skilful action in ambiguous, high-stakes situations (Komara et al., 2025; Aliza Ali, 2023) such as crisis communication.

This study responds to these structural challenges by examining how current assessment practices at Malaysian universities evaluate crisis communication competencies. It explores the extent to which students are assessed based on their ability to analyze crisis types, attribute responsibility, and choose appropriate response strategies. The findings aim to contribute to curriculum reform, advocating for more authentic, context-specific assessments that support the development of crisis-ready graduates, an urgent priority for both educational institutions and

employers. While previous research (Siddique et al., 2022) has examined how factors like training and workplace readiness influence students' communication skills, few studies have investigated the underlying mechanism that explains how these factors contribute to communication performance during crises. Most existing work (Fannes et al., 2024; Thakur & Hale, 2022) has tested direct relationships, leaving the role of crisis response strategy as a mediator largely unexplored especially in the context of higher education and non-Western, collectivist cultures like Malaysia. To address this gap, the present study applies SCCT to test a mediation model, focusing on how students' preparedness influences their crisis communication competency through their strategic response decisions. This approach offers theoretical and practical insights for improving crisis communication training in Malaysian universities.

## Theoretical Framework

This study adopts Situational Crisis Communication Theory (SCCT), developed by Coombs (2007), as the guiding framework to assess undergraduate students' crisis communication competencies. SCCT provides a structured, empirically supported model that links the nature of a crisis with strategic communication responses, primarily grounded in stakeholders' attribution of responsibility and perceptions of reputational threat.

Traditionally, SCCT has been applied in organizational and corporate communication settings, guiding organizations via spokespersons or communication professionals to craft responses that preserve public trust and organizational legitimacy. However, this study extends the application of SCCT into a pre-professional educational context, where undergraduates students are being prepared for roles requiring strategic and high-stakes communication. This theoretical extension is both timely and essential given the increasing emphasis on graduate employability, communication resilience and crisis adaptability in higher education. To ensure theoretical alignment, the study adapts core SCCT constructs for individual-level operationalization, enabling assessment of students' preparedness within simulated crisis scenarios:

- **Crisis Type Identification:** Rather than organizational-level crises, students evaluated crisis scenarios relevant to future work environments (e.g., interpersonal conflict, reputational incidents in teams), maintaining SCCT's tripartite classification: victim, accidental, and preventable crises.
- **Responsibility Attribution:** Responsibility attribution reflects students' ethical reasoning and accountability orientation, which in turn influence their crisis response behavior. While SCCT originally focuses on how stakeholders assign blame to organizations, this study adapts the construct to assess how students internalize accountability in professional-like crisis scenarios. This reframing captures their cognitive capacity to evaluate responsibility and their ethical readiness to assume appropriate roles in responding to reputational threats, thereby reflecting a key dimension of preparedness for the workplace.
- **Crisis Response Strategy:** SCCT's typology of response strategies which are deny, diminish, rebuild, and bolster were retained. Students were tasked with selecting and justifying responses in simulated scenarios, promoting strategic decision-making aligned with reputational considerations.
- **Stakeholder Perception:** Students were asked to consider how various internal and external stakeholders (e.g., peers, supervisors, clients) might perceive the crisis and response. This cultivated audience-centered thinking, consistent with SCCT's emphasis on managing stakeholder expectations.

This adaptation is justified on two levels. First, SCCT is rooted in attribution theory, which can be meaningfully applied to both individual and collective actors, making it suitable for modeling students' reasoning around blame, responsibility, and response. Second, the adapted framework reframes SCCT constructs as educational learning outcomes, emphasizing cognitive insight, strategic reasoning, contextual judgment, and ethical reflexivity. This positions SCCT not merely as a post-crisis managerial model but as a developmental tool for pre-professionals in communication-intensive environments

Importantly, this study also incorporates cultural framing by situating SCCT within Malaysia's collectivist sociocultural context. In collectivist cultures, values such as group harmony, shared responsibility, and indirect communication are deeply embedded in professional and interpersonal behavior (Hofstede, 2011). As a result,

students may interpret crises not as isolated personal threats but as relational disruptions affecting collective identity. Responsibility attribution, in this context, is likely shaped by obligations to maintain social cohesion and institutional image rather than solely individual agency. Moreover, communication styles in Malaysia tend to emphasize face-saving, reputational preservation and deference, which may influence students' strategic decision-making. For example, students may be more inclined to use response strategies such as rebuild or bolster, which focus on restoring trust and reaffirm values, rather than deny, which can be perceived as disrespectful and confrontational. This highlights the need to interpret SCCT's attribution and response dimensions through a culturally sensitive framework, particularly when applying the theory to the non-Western, collectivist contexts in which university students are being prepared for high-stakes communication roles.

By embedding SCCT within this study's design and culturally responsive framework, the research bridges the gap between organizational theory and higher education praxis, offering a replicable and adaptable model for evaluating, enhancing, and contextualizing crisis communication competencies in diverse learning environments.

## Conceptual Framework

This study adopts a theory-informed conceptual framework grounded in Situational Crisis Communication Theory (SCCT) to examine the predictors of crisis communication competency among undergraduate students in Malaysian higher education. The framework reflects the integration of theoretical understanding, perceived preparedness, and applied skills necessary for managing organizational crises effectively.

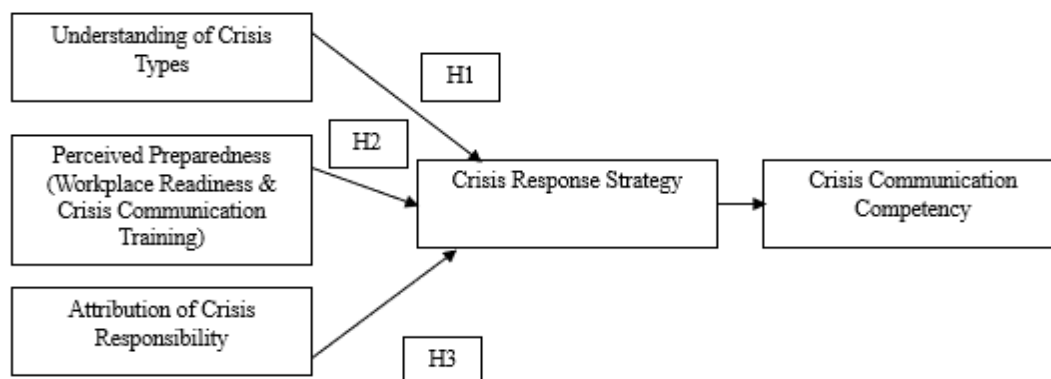


Fig. 1 Conceptual framework of the study

Crisis communication competency, the dependent variable, refers to students' ability to recognize crisis types, assess stakeholder expectations, and deploy appropriate response strategies. SCCT (Coombs, 2010b) provides a structured lens for identifying these crisis types (victim, accidental, preventable), the corresponding level of responsibility attribution, and the appropriate communicative responses (deny, diminish, rebuild, bolster).

In this framework, four independent variables are proposed:

- Understanding of Crisis Types: the student's ability to distinguish between different crisis scenarios.
- Perceived Workplace Readiness: the student's self-assessment of preparedness for professional crisis situations.
- Crisis Communication Training: the extent of formal or experiential training received in crisis communication contexts.
- Attribution of Crisis Responsibility: the ability to evaluate who or what is responsible for the crisis and adjust messaging accordingly.

These variables are hypothesized to influence the student's overall crisis communication competency. Additionally, the model proposes a mediating variable, Crisis Response Strategy, which reflects students' capacity to select suitable SCCT-aligned communication strategies in response to different crisis scenarios. This conceptual framework reflects both the theoretical expectations of SCCT and the pedagogical emphasis on outcome-based education and authentic assessment. It supports the development of measurable constructs that can guide hypothesis testing and curriculum reform in Malaysian higher education.

As illustrated in Figure 1, this study proposes the following mediation hypotheses:

H1: Crisis response strategy mediates the relationship between understanding of crisis types and crisis communication competency.

H2Crisis response strategy mediates the relationship between students' perceived preparedness and crisis communication competency.

H3: Crisis response strategy mediates the relationship between crisis communication training and crisis communication competency.

These hypotheses collectively examine how both cognitive and experiential preparedness factors when processed through strategic decision-making aligned with SCCT contribute to students' ability to respond effectively during crisis communication scenarios.

## METHODOLOGY

This study employed a quantitative, cross-sectional survey design to investigate the crisis communication competencies of undergraduate students at Universiti Teknologi Malaysia (UTM). The design was appropriate for testing hypothesised relationships between students' understanding of crisis types, training exposure, workplace readiness, and the mediating role of crisis response strategy in shaping their ability to manage workplace-related crisis scenarios. Data were collected using a structured, self-administered online questionnaire comprising closed-ended items to ensure response consistency and enable statistical analysis. A total of 419 undergraduate students from multiple faculties at UTM Johor Bahru participated in the study.

Participants were recruited through convenience sampling, facilitated by trained student enumerators who distributed the survey link via faculty WhatsApp groups, course channels, and internal student networks. With UTM's undergraduate population estimated at approximately 22,000, the sample represents a response rate of 1.9%, which is deemed acceptable for non-incentivised, voluntary online surveys. According to Serdar et al. (2021), a minimum of 300 responses is sufficient to detect medium effect sizes with 80% statistical power, supporting the adequacy of the sample size. The survey instrument consisted of 45 items adapted from validated instruments in the crisis communication and workplace readiness literature. All items were measured on a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). Table 1 outlines the sources of the adapted measurement items.

TABLE I: Sources of survey items

Construct	Source(s)
Crisis Type	Coombs (2007); Fearn-Banks (2016)
Attribution of Crisis Responsibility	Coombs & Holladay (2005); Heath et al. (2010)
Crisis Response Strategy	Ulmer et al. (2011)
Perceived Workplace Readiness & Crisis Communication Training	Lau et al. (2020); Lau et al. (2021)



A pilot study was conducted with 30 final-year students to assess item clarity, sequencing, and contextual appropriateness. Based on their feedback, minor revisions were made to improve the clarity of the training and workplace readiness items. The pilot results demonstrated strong internal reliability, with Cronbach's alpha values ranging from 0.81 to 0.89 across all five constructs. The finalized questionnaire was hosted on Google Forms and disseminated digitally. An introductory note informed respondent of the study's objectives, voluntary nature, anonymity, and right to withdraw. No personally identifiable information was collected, and informed consent was obtained prior to participation. Data were collected over a four-week period, yielding 419 complete and usable responses.

Quantitative data were analyzed using IBM SPSS Statistics version 28. Preliminary screening was conducted to assess data quality, including checks for missing values, normality, and outliers. All variables met acceptable thresholds for skewness and kurtosis, and no significant outliers were detected. Incomplete responses were removed through listwise deletion, resulting in a final dataset of 419 valid cases. Descriptive statistics were used to summarize participant demographics and variable distributions. Reliability analysis using Cronbach's alpha confirmed internal consistency for all multi-item scales. For the purpose of this study, perceived preparedness was conceptualized as a composite variable combining two elements: (1) workplace readiness and (2) prior exposure to crisis communication training. These components were aggregated into a single index to reflect students' overall self-assessed preparedness for workplace crises.

To test the mediation hypotheses (H1 to H3), the study employed Hayes' PROCESS macro (Model 4) to examine whether crisis response strategy mediated the relationships between the three preparedness factors, namely understanding of crisis types, perceived preparedness, and responsibility attribution, and crisis communication competency. Bootstrapping with 5,000 samples was used to estimate indirect effects and generate bias-corrected 95 percent confidence intervals. A mediation effect was considered statistically significant if the confidence interval for the indirect effect did not include zero.

## FINDINGS

### Respondents' Demographic Background

A total of 419 undergraduate students from Universiti Teknologi Malaysia participated in the study. Of these, 59.4% were female ( $n = 249$ ) and 40.6% male ( $n = 170$ ). The majority were first-year students (40.1%), followed by third year (21.2%), second year (21.0%), and fourth year (17.7%). Most respondents were aged 18–24 years (85.4%), with smaller groups aged 25–34 (11.9%) and 35 and above (2.6%). Regarding crisis communication preparedness, 56.3% had received formal training, while 43.7% had not. Over half (55.1%) reported involvement in handling or responding to a crisis, through training simulations (25.5%), team-based roles (11.7%), or individual responses (7.6%). Familiarity with crisis communication strategies was generally low; 62.1% reported being slightly familiar, and 33.9% not familiar. Only 4% considered themselves moderately to extremely familiar. Most students (72.3%) had no work experience in corporate settings, while 22.0% had previously worked and 5.7% were currently employed. These findings provide important context for interpreting students' crisis communication competencies.

TABLE II: Respondents' demographic background

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	170	40.6
	Female	249	59.4
Year of Study	First Year	168	40.1
	Second Year	88	21.0

	Third Year	89	21.2
	Fourth Year	74	17.7
Age Group	18–24 years	358	85.4
	25–34 years	50	11.9
	35 years and above	11	2.6
Received Crisis Communication Training	236	56.3	236
	183	43.7	183
Involved in Handling/Responding to Crisis Situation	231	55.1	231
	49	11.7	49
	107	25.5	107
	32	7.6	32
Familiarity with Crisis Communication Strategies	Not familiar	142	33.9
	Slightly familiar	260	62.1
	Moderately familiar	15	3.6
	Very familiar	1	.2
	Extremely familiar	1	.2
Work Experience in Corporate Setting	Yes, previously employed	92	22.0
	Yes, currently employed	24	5.7
	No	303	72.3

### Crisis Response Strategy as a Mediator Between Predictors and Crisis Communication Competency

The following section presents the results of the mediation analyses for Hypotheses H1 through H3. In each model, the effect of one predictor on crisis communication competency was tested through the mediating role of crisis response strategy. Results of the indirect and direct effects are presented in Tables 7–10.

### Mediation Effect of Crisis Response Strategy on the Relationship Between Understanding of Crisis Types and Crisis Communication Competency

The analysis of H1 (see Table 3) revealed that understanding of crisis types significantly predicted the use of crisis response strategies ( $B = 0.8067, p < .001$ ), and in turn, response strategy significantly predicted crisis communication competency ( $B = 1.4386, p < .001$ ). The direct effect of understanding on competency remained significant ( $B = 0.4848, p < .001$ ), indicating partial mediation. The indirect effect was also significant ( $B = 1.1605, 95\% \text{ CI } [1.0420, 1.2816]$ ), supporting the hypothesis that students who are better at identifying and categorizing crisis types are more likely to apply appropriate strategic responses, which in turn enhances their

communication competency. These findings align with the assumptions of SCCT, emphasizing that effective crisis communication begins with accurate crisis appraisal and appropriate response selection.

TABLE III: Mediation Analysis – Crisis types

Path	Coefficient (B)	SE	t	p	LLCI	ULCI
Path a: Understanding → Strategy	0.8067	0.0328	24.6213	<.001	0.7423	0.8711
Path b: Strategy → Competency	1.4386	0.0391	36.8247	<.001	1.3618	1.5154
Direct effect (c'): Understanding → Competency	0.4848	0.0409	11.8400	<.001	0.4043	0.5652
Indirect effect (a × b)	1.1605	0.0613	—	—	1.0420	1.2816

### Mediation Effect of Crisis Response Strategy on the Relationship Between Perceived Preparedness and Crisis Communication Competency

The results for H2 (see Table 4) indicated that perceived preparedness which are measured through students' self-assessments of both workplace readiness and prior training exposure is significantly predicted their use of crisis response strategies ( $B = 3.1916$ ,  $p < .001$ ). In turn, these strategies significantly predicted students' communication competency ( $B = 1.7993$ ,  $p < .001$ ). The direct effect of perceived preparedness on communication competency was not significant ( $B = -0.3087$ ,  $p = .4742$ ), indicating a full mediation effect. The bootstrapped indirect effect was statistically significant ( $B = 5.7425$ , 95% CI [3.2611, 8.1544]), supporting the hypothesis that preparedness enhances students' communication performance primarily through the application of strategic response practices.

TABLE IV: Mediation analysis – Perceived preparedness

Path	Coefficient(B)	SE	t	p	95% CI (LLCI – ULCI)
Perceived Preparedness → Crisis Response Strategy	3.1916	0.6973	4.5771	< .001	[1.8209, 4.5622]
Crisis Response Strategy → Communication Competency	1.7993	0.0295	60.9209	< .001	[1.7412, 1.8573]
Perceived Preparedness → Communication Competency (c')	-0.3087	0.4310	-0.7163	.4742	[-1.1559, 0.5385]
Indirect effect via Crisis Response Strategy	5.7425	1.2387	—	—	[3.2611, 8.1544]

### Mediation Effect of Crisis Response Strategy on the Relationship Between Responsibility Attribution and Crisis Communication Competency

The results (see Table 5) showed that responsibility attribution significantly predicted students' use of crisis response strategies ( $B = 0.8218$ ,  $p < .001$ ), and in turn, crisis response strategy significantly predicted crisis communication competency ( $B = 1.3105$ ,  $p < .001$ ). The direct effect of responsibility attribution on communication competency also remained significant ( $B = 0.5952$ ,  $p < .001$ ), indicating partial mediation. The indirect effect was statistically significant ( $B = 1.0770$ , 95% CI [0.9678, 1.1874]), confirming that students'

sense of responsibility enhances their communication competency both directly and indirectly through the application of strategic responses. These findings reinforce the SCCT principle that perceptions of responsibility shape communicative choices and outcomes during crises.

TABLE V: Mediation analysis – Attribution of crisis responsibility

Path	Coefficient (B)	SE	t	p	95% CI (LLCI – ULCI)
Responsibility Attribution → Crisis Response Strategy	0.8218	0.0283	28.9970	< .001	[0.7661, 0.8775]
Crisis Response Strategy → Communication Competency	1.3105	0.0408	32.1118	< .001	[1.2303, 1.3908]
Responsibility Attribution → Communication Competency (direct effect)	0.5952	0.0410	14.5087	< .001	[0.5145, 0.6758]
Indirect effect via Crisis Response Strategy	1.0770	0.0571	—	—	[0.9678, 1.1874]

## DISCUSSION

This study investigated the mediating role of crisis response strategy in the relationship between three student preparedness factors and crisis communication competency. The analysis revealed that crisis response strategy significantly mediated all three hypothesised relationships. Understanding of crisis types and responsibility attribution exhibited partial mediation, while perceived preparedness (combination of workplace readiness and training exposure) showed full mediation. These results reinforce the view that knowledge or exposure alone does not ensure competency; rather, students must be able to translate that preparedness into the strategic selection of appropriate crisis responses, consistent with the principles of Situational Crisis Communication Theory (SCCT).

The partial mediation observed in H1 and H3 suggests that cognitive appraisal and ethical judgment exert both direct and indirect influences on communication performance. Students who can accurately identify crisis types and attribute responsibility appropriately appear capable of communicating effectively, even when not fully applying formalized strategic responses. This highlights the intrinsic value of conceptual clarity and moral reasoning during crisis situations. In contrast, the full mediation in H2 indicates that general workplace readiness and prior training are insufficient unless students can enact that preparedness through strategic action. This supports the argument that applied, not passive, knowledge is the most critical determinant of communicative competency.

These findings contribute to theory by extending SCCT beyond organizational crisis management into educational and developmental contexts. Although SCCT was originally designed to guide institutional communication during high-stakes crises, this study illustrates its relevance for pre-professionals navigating simulated or instructional decision-making scenarios. Students, though lacking formal authority, are still capable of enacting strategic roles that resemble those of organizational actors. This suggests that SCCT's attributional logic and response typologies can be reframed as pedagogical tools that serve as measurable learning outcomes that reflect students' cognitive, ethical, and communicative development. In doing so, the study positions SCCT not only as a managerial framework but also as a versatile educational model for shaping future crisis communicators.

The results also align with and expand upon existing research in applied crisis communication. Previous studies by Coombs (2022) and Liu-Lastres et al. (2023) emphasized the importance of aligning response strategies with crisis types and stakeholder expectations. This study adds a new layer by demonstrating how students' use of crisis response strategies mediates their performance outcomes, especially in the domains of preparedness and training. These findings align with performance-based learning literature, which emphasizes that theoretical

knowledge must be reinforced through critical reflection, experiential practice, and feedback. Additionally, the evidence that responsibility attribution gives both direct and indirect effects highlights the importance ethical reflexivity. Students who internalize responsibility are more likely to respond competence and deliberation, supporting Morley and Jamil's (2021) argument that moral reasoning remains overlooked yet vital aspect of crisis communication education.

Cultural context served a central lens in interpreting students' strategic choices. In Malaysia's collectivist society, communication is shaped by norms that emphasize indirect communication, group harmony and the preservation of face. These values were evident in students' preferences for restore-oriented strategies, such as rebuild and bolster, over confrontational approaches like denial. Responsibility attribution was frequently framed in relational terms, with students framing crises as collective threats rather than individual shortcomings. Such patterns are consistent with Hofstede's (2011) cultural dimensions and underscore the importance of culturally responsive communication pedagogy. In high-context cultures, it is not adequate to teach strategic models in isolation; university students must also develop the ability to interpret situational cues and craft responses that are align with stakeholders' expectations and cultural norms.

Ultimately, the findings carry important pedagogical implications for higher education. Curriculum design should extend beyond declarative knowledge to include scenario-based activities that cultivate decision-making, ethical reasoning under pressure and stakeholder sensitivity. Assessments should simulate reputational challenges and require students to justify their chosen response strategies. Crisis communication training must also embed cultural intelligence, enabling students to adjust their strategies to different organizational and cultural contexts. By embedding SCCT within a culturally responsive and performance-driven curriculum, Malaysian universities can more effectively prepare university students for high-stakes communication roles in complex, real-world environments.

### **Theoretical Implications**

This study makes several theoretical contributions by extending the application of SCCT into the context of higher education. Traditionally, SCCT focuses on how organizational spokespersons manage stakeholders' perceptions during crises. This research however demonstrates that its core principles which are crisis type identification, responsibility attribution and strategic response can be effectively adapted to evaluate and strengthen students' crisis communication and management competencies before they enter the workforce.

The key theoretical advancement lies in positioning crisis response strategy as a mediating mechanism that bridges preparedness with performance. Findings from H1 and H3 (partial mediation) suggest that cognitive understanding and ethical awareness influence communication competency both directly and indirectly through strategic application. Meanwhile, H2 and H3 (full mediation) underscore that training and workplace readiness alone are not sufficient. They have to be accompanied by the ability to apply appropriate response strategies to be effective. This reconceptualizes SCCT not only as a reactive framework for managing crises but also as a developmental tool for shaping strategic thinking at the individual level.

Importantly, the study situates SCCT within Malaysia's collectivist cultural context, where values such as group harmony, deference, and face-saving significantly shape communication behavior. Responsibility attribution, in this setting, is not only about individual accountability but also about preserving collective image and institutional trust. These cultural influences expand SCCT's attribution construct, which has largely been framed through Western, individualist assumptions. The findings suggest the need for culturally nuanced adaptations of SCCT that consider how strategic communication decisions are shaped by social norms and interdependence, especially in high-context societies. By reframing SCCT to fit educational and cultural contexts, this study broadens its theoretical utility, paving the way for future research on strategic communication training, attribution processes, and intercultural adaptation of crisis frameworks in non-Western academic settings.

### **Practical Implications**

The findings offer actionable recommendations for higher education institutions aiming to build communication resilience among graduates. Although students exhibited varying levels of theoretical understanding, training



and workplace exposure, the strongest predictor of competency was their ability to apply appropriate crisis response strategies. This finding carries important implications for curriculum reform, emphasizing the need to shift from passive knowledge delivery to applied, performance-driven learning approaches.

Universities should integrate simulation-based modules, role-playing activities and crisis scenario exercises to ensure students acquire procedural fluency in high-pressure contexts. The full mediation observed in H2 and H3 indicates that experiential exposure alone is insufficient for building competency; students must practice applying strategies that align with stakeholder expectations, ethical standards and reputational risk. Embedding such activities within capstone projects or dedicated crisis communication and management courses would enable students to translate preparedness into effective real-world decision-making. Moreover, these reforms should also align with the Malaysian Qualifications Agency (MQA) guidelines and national policy priorities as outlined in the Twelfth Malaysia Plan (12MP), both of which emphasize employability, digital readiness and soft skills. Developing microcredential courses in crisis communication whether stackable, modular or industry-relevant can further support students across disciplines, equipping them with critical workplace competencies regardless of their academic specialization. Another practical insight lies in the significance of responsibility attribution. Students who internalized ethical responsibility are more likely to perform better even without formal training or prior experience. This reinforces the value of incorporating affective learning components into crisis communication education including ethical reflection, stakeholder perspective-taking and accountability journaling. Such strategies not only develop technical skill but also cultivate values-based decision-making, which is essential in professional environments marked by uncertainty and complexity.

In sum, this study advocates a multidimensional approach to crisis communication education, one that is cognitive, behavioral, and affective. By grounding training in theory, culture, and applied practice, universities, particularly in Malaysia, can better prepare students to communicate with clarity, empathy, and strategy in future crisis contexts.

### **Limitations**

This study, while offering valuable insights, is subject to several limitations. First, its cross-sectional design limits causal interpretation. Although significant associations were identified, the direction and temporal order of relationships cannot be established. Longitudinal research would better capture how crisis communication competencies evolve, especially in response to training and workplace exposure.

Second, the study was conducted at a single Malaysian public university. Despite including students from multiple faculties, institutional variations in curriculum, culture, and crisis-related exposure may affect generalizability. Cross-institutional research is recommended to improve external validity. Finally, the use of self-reported data introduces potential bias, particularly in constructs such as perceived competency and responsibility attribution. While validated instruments were employed, these subjective measures may not reflect actual capability. Future studies could incorporate performance-based assessments or instructor evaluations during simulations to strengthen measurement accuracy.

### **Suggestions for Future Research**

To advance the findings of this study, several avenues for future research are recommended. First, longitudinal research is needed to trace how students' crisis communication competencies develop over time, especially before and after interventions such as simulations, coursework, or internships. This would allow assessment of both immediate learning gains and long-term skill transfer into professional settings.

Second, multi-institutional and cross-cultural studies should be undertaken to explore differences across universities, disciplines, and national contexts. Such designs would help identify how institutional practices, programme structures, and cultural norms influence students' crisis preparedness. Third, future work should incorporate psychosocial and cultural moderators such as emotional intelligence, collectivist orientation, and personality traits as these may influence how students internalize responsibility or apply communication strategies. For example, students with higher emotional regulation may respond more competently in high-stakes or ambiguous situations.

Fourth, experimental and quasi-experimental designs are needed to evaluate the pedagogical efficacy of SCCT-informed interventions. Using pre-test/post-test methods, simulation trials, or scenario-based assessments can determine whether targeted instruction enhances students' strategic communication capabilities in measurable ways. Finally, future research should develop and validate performance-based tools to assess crisis communication competency. Triangulating self-reports with structured observations, peer assessments, or rubric-based evaluations during simulations would yield a more accurate and multidimensional understanding of student performance.

## CONCLUSION

This study investigated how crisis response strategy mediates the relationship between key preparedness factors including understanding of crisis types, workplace readiness, training exposure and responsibility attribution as well as students' crisis communication competency. Grounded in SCCT and contextualized within Malaysia's collectivist educational context, the findings confirm that crisis response strategy serves as a critical behavioral mechanism that transforms experience, knowledge and ethical orientation into effective action.

The mediation analysis revealed two distinct patterns. Understanding of crisis types and responsibility attribution showed partial mediation, while training exposure and workplace readiness demonstrated full mediation. These results suggest that although cognitive understanding and ethical awareness can directly influence performance, the application of strategic responses remains important, particularly in converting experiential learning into effective communication under pressure. Theoretically, this research extends SCCT into pre-professional contexts, demonstrating its relevance for modeling individual strategic behavior in simulated high-stakes situations. Practically, the study highlights the need for curricula that integrate strategic reasoning, scenario-based learning and cultural awareness to cultivate crisis-ready graduates. Universities, particularly in Malaysia, must not only expose students to crisis concepts but also train them to respond with empathy, agility and accountability.

To end with, this research offers a theory-informed, empirically tested framework for understanding and developing crisis communication competency among undergraduates. By aligning cognitive, affective and behavioral dimensions of preparedness with SCCT and Malaysian cultural norms, this research offers both conceptual clarity and actionable insights for enhancing graduate readiness in communication-intensive careers.

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