

社群媒體上的報復：闡釋背叛感知於資料外洩危機中負面口碑形塑過程中的角色

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摘要

本研究希望藉由檢視背叛感知在網路報復形成過程中的核心角色，描繪出在企業危機情境中，社群媒體上負面口碑形成的傳播機制。整合過去既有的理論論點，本研究提出綜合性的概念架構，假設受眾對企業危機回應的防禦性感知將影響其背叛感知，而背叛感知能進一步預測公眾在線上傳散負面口碑的意圖。本研究以企業資料外洩的危機情境為背景進行問卷調查（N=716），資料使用結構方程式的統計方法進行模型檢驗，分析結果顯示危機回應的防禦性感知與既有的組織—公眾關係先產生交互作用，其效果是經由背叛感知的生成才影響線上負面口碑意圖。結果顯示背叛感知為危機資訊的傳播過程中重要的中介變項，尤其背叛感知對社群媒體上負面口碑的效果路徑受到了個人線上情境中自我揭露程度的影響。本文最末將探討對於一般危機情境與獨特的資料外洩危機情境，上述研究結果在理論與實務上所呈現的意涵。

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Retaliation on Social Media: Elucidating the Roles of Perceived Betrayal in Forming Negative Megaphoning in Data Breach Crises

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Abstract

Aiming to explicate the mechanism of how negative megaphoning on social media is induced during a corporate crisis, the current study examines the central role of perceived betrayal in the formation process of online retaliation. Expanded from previous theories, the integrated conceptual model proposes that perceived defensiveness in crisis response will lead to stronger perceptions of betrayal, which further predicts the intention of negative megaphoning online. Based on structural equation modeling analysis, the survey results (N=716) suggest that the effects of perceived defensiveness on negative megaphoning were moderated by previous organization-public relationship and then mediated by the perceptions of betrayal. Perceived betrayal appeared to be a key mediator in crisis communication process with an effect path to negative megaphoning on social media that is intrinsically moderated by personal level of self-disclosure in the online setting. The theoretical and practical implications for crisis communication in general and specifically in the context of data breaches are discussed.

- Keywords: Crisis communication, Perceived betrayal, Negative megaphoning, Data breach
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Introduction

The unauthorized access and theft of consumer information is becoming a recurrent reality in recent years (Brown, 2016; Kuiper & Schonheit, 2021; Lulandala, 2020). In data breach crises, corporations are faced with threats of illegal data harvest, misuse of consumer data, or failures to safeguard consumer information (Kuipers & Schonheit, 2021; Lulandala, 2020). Companies' market value and reputation would suffer in a data breach incident, where perceptions of trust and issues of privacy become vital topics for the management (Dwyer, Hiltz & Passerini, 2007; Foecking, Wang & Huynh, 2021).

Data breach incidents on social media that have large numbers of users worldwide are worthy of in-depth examination, particularly Facebook (Badshah, 2018; Foecking et al., 2021; Lulandala, 2020; Sen & Borle, 2015). In 2013, an app called “This Is Your Digital Life” collected personal data of Facebook users' friends via Facebook's Open Graph platform. Up to 87 million Facebook profiles were harvested by the app and then used by a British political consulting firm called Cambridge Analytica to assist the U.S. presidential campaigns of Donald Trump in 2016 (Confessore, 2018). The incident was disclosed to media in 2018 and then known as the “Facebook—Cambridge Analytica data scandal” (Lulandala, 2020).

After the news reporting on the scandal, in which Facebook had already learned about the data misuse but did not notify the affected users (Reints, 2018), the company was faced with boycott from advertisers and loss of hundreds of billions in its company value (Lulandala, 2020). In 2019, Facebook was fined to pay \$5 billion by the U.S. Federal Trade Commission for privacy violation, and \$100 million to U.S. Securities and Exchange Commission for misleading investors (McCallum, 2022). Facebook changed its name to Meta in 2021, and in the next year Meta agreed to pay \$725 million to settle legal action over the data breach (McCallum, 2022).

Incidents of data breaches become corporate crisis once it appears in the media, and they pose challenges on company reputation that can take a long time to recover

(Kim, Johnson & Park, 2017; Wang & Park, 2017). Corporate reputation is a cognitive representation of a firm's actions and ability to achieve accomplishments to its stakeholders (Fombrun & Gardberg, 2000), and it is also a reflection of how the publics perceive its relationship with the organization that is largely based on trust and commitment (Ki & Hon, 2007; Hon & Grunig, 1999). However, corporate reputation or previous organization-public relationship can be viewed as a "double-edged sword," that burdens companies with greater liability in a time of crisis (Sohn & Lariscy, 2015). Past scholars hold different views as far as how corporate reputation or previous organization-public relationship may "buffer or backfire" in crises (e.g., Bennett & Gabriel, 2001; Lyon & Cameron, 2004; Sohn & Lariscy, 2015; Zheng, Liu & Davison, 2018). Limited research has empirically tested the interplaying relationship of corporate reputation and crisis responses as a mediated communication process. Especially if focusing on the construct of perceived betrayal, the effect of audiences' previous relationship with the organization—whether such prior cognitive assessment of the organization intensifies the level of expectation and thus perception of violation, is worthy to be examined and verified in a crisis context of data breach.

Additionally, there remains to be a deficit in crisis communication scholarship that closely investigate negative information transmitting behavior on social media. Negative word-of-mouth or negative megaphoning is a form of public retaliation, and even more so on social media. Negative information sharing on social media can more influentially reach a group of networked publics via the internet, which is not limited by time or geographical location (Liu, Li, Ji, North & Yang, 2017; Zheng et al., 2018; Zhao, Zhan & Ma, 2020). Extant social-mediated crisis communication research was largely oriented on identifying appropriate response strategies and examining the results as a function of crisis type, media source, or message rhetoric (e.g., Coombs & Holladay, 2008; Jin, Liu & Austin, 2014; Liu, Austin & Jin, 2011; Moisiu, Capelli & Sabadie, 2021; Zhao et al., 2020; Wang, Cheng & Sun, 2021; Wang, Zhang, Li, McLeay & Gupta, 2021; Utz, Schultz & Glocka, 2013), with less interest in investigating the formation process of online negative megaphoning (Wang et al., 2021a; Wang & Dong, 2017).

Self-disclosure is a pivotal construct in understanding people's online behaviors (Trepte & Reinecke, 2013; Reinecke & Trepte, 2014), but it has not yet been incorporated into the conceptualization of social-mediated crisis communication process. Not only that using social media almost by default requires a certain level of self-disclosure—revealing information about self (Cozby, 1973; Greene, Derlega & Mathews, 2006; Nguyen, Bin & Campbell, 2012), there is a spiral effect found between online self-disclosure and social media (Trepte & Reinecke, 2013). Social motivators and psychological dispositions in using social media are also boosting reinforcements for online self-disclosure. Online self-disclosure may expedite the effects of perceived betrayal on negative megaphoning on social media because declaring dissent upon a sense of betrayal and injustice can fulfill the underlying needs for self-expression and social validation (Chung & Cho, 2017; Derlega, Metts, Petronio & Margulis, 1993; Lin, Levordashka & Utz, 2016). Thus, in our study we believe online self-disclosure should be connected to the intention of online negative megaphoning during a corporate crisis.

Since previous research had not yet delineated the process of online communication about data breach crises with consideration of prior corporate reputation, crisis response, perception of betrayal, and online self-disclosure, we propose to test an integrative model with three major purposes in the current study: 1) to examine the interaction effect of previous organization-public relationship and crisis response efficacy in crisis communication; 2) to test the role of perceived betrayal in inducing the intention of online negative megaphoning post a crisis; and 3) to explore the interaction effect of online disclosure and perceived betrayal on negative word-of-mouth in data breach crises.

Literature Review

Negative Information Transmitting Induced by Perceived Betrayal

In times of crisis and conflicts, negative information may be transmitted as people's emotions and reactions are prompted by the situations (Berger, 2014; Heath et al., 2001;

Koenig, 1985; Jones & Skarlicki, 2013; Brynielsson, Granåsen, Lindquist, Quijano, Nilsson & Trnka, 2018). How publics communicate information about an organization to others, that is, word-of-mouth (WOM) behaviors targeted toward organizations, can be conceptualized as information transmitting behavior that contains theoretical dimensions such as valence and activeness (Moon, Rhee & Yang, 2016; Kim & Grunig, 2011; Kim & Rhee, 2011; Herr et al., 1991; Westbrook, 1987). Earlier studies have demonstrated that WOM can impact consumers' attitudes and purchase intention (Bearden, Netemeyer & Teel, 1989; Laczniak, DeCarlo & Motley, 1996; Mahajan, Muller & Bass, 1990).

Motivations of WOM that have been discussed in literature broadly include entrainment to others, seeking emotional support, and even self-enhancement through the projection of a selected version of oneself on social media (Berger, 2014; Sundaram, Mitra & Webster, 1998; Krishna & Kim, 2020), as well as vengeance and altruism for negative experiences (Hennig-Thurau, Gwinner, Walsh & Gremler, 2004; Sundaram, Mitra & Webster, 1998; Krishna & Kim, 2020). Negative WOM has been found to have stronger effect than positive WOM in changing consumers' evaluation (Laczniak et al., 1996; Moon et al., 2016). In particular, research has suggested that discontented or frustrated consumers are more likely to proactively engage in transmitting negative information about the company, while satisfied consumers may not necessarily spread positive WOM (Richins, 1987; Moon et al., 2016).

Negative word-of-mouth (WOM) during a corporate crisis, that is, sharing unfavorable information about the incident and the company, can be viewed as a form of public retaliation (Bean et al., 2016; Grégoire & Fisher, 2008; Moon et al., 2016; Schultz, Utz & Göritz, 2011; Utz et al., 2013; Wangenheim, 2005). Consumers' actions that are targeted to punish and create troublesomeness to a firm for the damages it instigated are retaliations (Bechwati & Morrin 2003; Grégoire & Fisher, 2008). Previous research has shown that different corporate response strategies in a crisis can influence individuals' intention to spread the word offline and online (e.g., Roh, 2017; Grappi & Romani, 2015; Schultz et al., 2011; Utz et al., 2013; Xiao et al., 2018; Wang et al., 2021b; Zheng et al., 2018). The post-crisis process of publics' transmitting negative information about the company has also been called as secondary crisis

communication and considered as continuously harmful to corporate reputation (Bean et al., 2016; Utz et al., 2013).

Online or electronic WOM is defined by Hennig-Thurau, Gwinner, Walsh, and Gremler (2004) as “any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet” (p. 39). Negative online WOM can also be termed as negative eWOM, online negative information transmitting, or online negative megaphoning (Kim & Rhee, 2011; Moon et al., 2016; Rosario, de Valck, K. & Sotgiu, 2020). Online megaphoning is distinctly different from traditional WOM, because it has much more extensive reach via the Internet and the transmission is much less restricted by time and place (Berger, 2014; Hennig-Thurau, Gwinner & Gremler, 2002; Rosario et al., 2020). Recent studies suggested that corporations might be able to effectively respond to a crisis either through lessening the instances of negative megaphoning or increasing positive megaphoning on social media (i.e., Roh, 2017; Wang et al., 2021b).

Among the few that included online word-of-mouth as an important outcome variable in their crisis communication studies, Roh (2017) tested the effects of media source and response strategy and found anger and social vigilantism are predictors for online word-of-mouth; while Wang et al. (2021b) tested the effects of corporate responses to the coronavirus on positive word-of-mouth online. But overall, the psychological mechanism of how individuals are activated and driven to engage in negative megaphoning on social media in the context of organizational crisis has been underexplored (Roh, 2017).

The formation of negative WOM in crisis communication may involve a cognitive process in which perceptions of betrayal play a key role, as suggested by the justice theory (Brockner & Wiesenfeld, 1996). Similar to the arguments in the line of literature on expectancy violations, justice theory also discusses that individuals would experience a cognitive discomfort created by the discrepancy between what was expected and what actually happened, in their reasoning process (Burgoon & Miller, 1985; Jones & Skarlicki, 2013; Roh, 2017). But with a greater emphasis on post-event mechanism of restoring

fairness, justice theory lends insights for understanding how publics engage in negative megaphoning on social media after an organizational crisis.

According to justice theory, if consumers sense that a company fails to meet their expectations, such as experiencing service failure, they would engage in mechanisms of retaliation to redress grievances and to restore fairness in the procedure (Grégoire & Fisher, 2008; Walster, Berscheid & Walster, 1973). Transmitting negative information about the company is a form of retaliation taken by consumers who are disappointed. In that token, negative WOM during a corporate crisis is provoked by a sense that the company is violating what is normative and betraying publics' trust (Elangovan & Shapiro, 1998; Koehler & Gershoff, 2003).

Theoretically, perceived betrayal is a key conceptual factor in attributing to negative WOM during crisis communication process. In earlier research, perceived betrayal has been defined as a customer's belief that a company intentionally violates fairness norms in the context of relationships (Elangovan & Shapiro, 1998; Grégoire & Fisher, 2008; Koehler & Gershoff 2003; Ward & Ostrom, 2006). Ward and Ostrom (2006) referred to betrayal as the underlying motivation for online consumer protest. Previous studies revealed that acts of betrayal, such as companies lying, breaking promises, or disclosing confidential information, are difficult to forgive and forget (Elangovan & Shapiro, 1998; Finkel, Rusbult, Kumashiro & Hannon, 2002).

Although sense of betrayal is often experienced along with feelings of anger and dissatisfaction, they are different constructs (Bougie, Pieters, R. & Zeelenberg, 2003; Smith, Bolton & Wagner, 1999). Emotions of anger and dissatisfaction may occur out of a relational context, but betrayal involves a cognitive appraisal and reference to the norms regulating a relationship. More specifically, perception of betrayal calls upon on a formation process of beliefs about a violation or infringement of normative standards (Elangovan & Shapiro, 1998; Grégoire & Fisher, 2008; Ward & Ostrom, 2006). In the survey study by Grégoire & Fisher (2008), it was just found that perceived betrayal explained more variance in retaliation than the measure of anger.

As betrayal is considered by scholars as a cognitive concept in its nature, it is a more extreme cognition than expectation disconfirmation and involves a thinking process of assessing the outcomes (Bougie et al., 2003; Grégoire & Fisher, 2008; Koehler & Gershoff, 2003; Oliver, 1996). Actions directed to restore fairness, such as engaging in negative megaphoning, should thus be also considered as behavioral outcomes that are deliberate and conscious (Bechwati & Morrin, 2003; Grégoire & Fisher, 2008; Walster et al., 1973). In the current study, we consider perceived betrayal to be a central motivating factor that drives negative megaphoning on social media in a crisis communication process, which encompasses earlier effects from corporate responses.

Perceptions of Defensiveness in Crisis Response

Similar to the theorization of perceived betrayal, crisis communication scholars also consider that crisis often occurs when an organization's actions go against the public expectations and thus corporate reputation is challenged (Coombs, 2018; Zhao et al., 2020). But previous crisis communication research places the focus on identifying effective crisis response strategies, with limited effort to explicate the underlying mechanism of how a negative behavioral outcome, particularly negative megaphoning, is fostered in the online communication environment. So, the current study is also aimed to expand the relevant theories in previous crisis communication research and explore the important factors that influence negative megaphoning in reaction to an organization crisis response on social media at the individual level.

The Situational Crisis Communication Theory (SCCT, Coombs, 1995) is a theory that has wide acceptance in the crisis communication research and remains to be often cited in social-mediated crisis communication research (Wang et al., 2021b). The theory proposed that organizations should determine how much the public consider the organization supposed to bear the responsibility and then decide on the optimal crisis response accordingly to restore corporate reputation (Coombs, 2002, 2007; Coombs & Holladay, 1996, 2002, 2022; Coombs & Schmidt, 2000). Lending the concepts from the attribution theory (Weiner, 1985), Coombs

(1995) considered that organization's responsibility in a crisis is dependent on the cause attribution, which involves situational assessment of the "intentionality" or "locus of control" (internal vs. external) of the negative incident. In later work, Coombs and his colleagues classified crises situations into three clusters in which the organization has a varying level of responsibility: victim cluster (e.g., natural disasters, rumors, and product tampering, where an organization would have a low level of responsibility), accidental cluster (e.g., product recall due to defect in design, where an organization would have a moderate level of responsibility), and preventable cluster (e.g., illegal conducts and intentional deceptions, in which an organization would have a high level of responsibility) (Coombs & Holladay, 1996; Coombs, 2007; Zhao et al., 2020).

It is believed that organizations should opt for a crisis response strategy that well matches with the level of responsibility in public expectation in order to effectively alleviate the negative perceptions (Coombs, 1995, 2007; Liu et al., 2011; Schneider, Boman & Akin, 2021). Adapting the work of earlier scholars (McLaughlin, Cody & O'Hair, 1983), Coombs (1995, 2007) proposed that crisis response strategies are on a defensive—accommodative continuum: defensive strategies are those responses that include more of denial (i.e., refusing to have any responsibility) or diminishment (i.e., reducing the responsibility through excuses, justification or positioning self as a victim), while accommodative strategies involve more of reinforcement (i.e., earning support through reminders of past good work or ingratiation) or rebuilding (i.e., offering an apology and even compensations). In short, SCCT argues that corporations should employ a response strategy (ranging from accommodation to defense) that is best suited for the crisis situation that may be at different degrees of blame (ranging from an intentional and preventable human mistake to a natural disaster that is mostly uncontrollable).

According to Coombs (1995, 2007), a defensive crisis response strategy would work better in a situation of victim cluster, while a more accommodating strategy would be required for a situation in the preventable cluster where an organization is expected to accept more responsibility. Such propositions were supported in some experimental

studies (e.g., Coombs & Holladay, 2002; Sisco, 2012). Coombs (2007) reminded that what truly determines the level of organization's responsibility in a crisis is the perceived reality of publics, and the management process of crisis communication should begin with understanding the public perceptions of the crisis situation and stress on how the corporate responses are interpreted by the audience. But overall, Coombs (1995, 2007; Coombs & Holladay, 2002) argued that defensive crisis responses would elicit negative perceptions and attitudes when publics expect the organizations to resume more crisis responsibility.

Recent studies demonstrate some evidence that negative megaphoning on the internet in reaction to a crisis can be curtailed by corporate responses (Roh, 2017; Wang et al., 2021b, Zhao et al., 2020). For example, in the content analysis of corporations' crisis responses on social media conducted by Zhao et al. (2020), it was found that more accommodating rhetoric such as issuing an apology or suggesting corrective efforts would be connected to more positive audiences' comments online. It is also suggested that in the event of data breach crisis the company should express remorse and manifest its apology, which was found to help rebuild corporate reputation, increase future purchase intention, and mitigate consumers' negative WOM (Bentley & Ma, 2020). The findings in these studies imply that certain accommodating crisis responses may effectively reduce negative megaphoning intention; and in the opposite, perceived defensiveness in crisis responses would increase people's intention to spread negative words about the company, which can be linked to the earlier discussion on justice theory and perception of betrayal.

As previously elaborated, negative WOM in crisis communication is a consumer's protest and attempt to restore fairness after perceiving betrayal—believing that a company intentionally violates norms and expectations in the context of relationships (Brockner & Wiesenfeld, 1996; Elangovan & Shapiro, 1998; Grégoire & Fisher, 2008; Koehler & Gershoff 2003; Ward & Ostrom, 2006). In that vein, when a company is expected to accept more responsibility in a crisis, defensive corporate responses are likely to activate the formation process of such beliefs about violation or infringement of normative standards, and this perception of betrayal can lead to retaliation and protests (Elangovan & Shapiro, 1998;

Grégoire & Fisher, 2008; Ward & Ostrom, 2006).

Thus, integrating the justice theory and situational crisis communication theory, we propose a crisis communication model where perceived defensiveness in a corporation's crisis response as a measure of how individuals make judgement about the company's action in the situation will cognitively affect their sense of betrayal in the assessment process of fairness; and in furtherance, perceived betrayal will affect the audience's intention to engage in retaliation behaviors of online negative megaphoning. Considering perceived betrayal as a mediating factor in the crisis communication process, the first two hypotheses are proposed as follows:

H1: Perceived defensiveness in crisis response increases perception of betrayal.

H2: Perceived betrayal increases the intention of online negative megaphoning.

Previous Organization-Public Relationship in Crisis Communication

When communicating about a crisis, companies that are trusted more may seem to benefit from its reputation and thus a higher level of credibility. However, empirical studies that inspected the effect of corporate reputation in crisis communication had been limited with mixed findings. Some consider previous corporate reputation could offer a shield for the company or a halo effect, in which organizations that have good reputation would be trusted more and less blamed for the negative incident (Bennett & Gabriel, 2001; Sohn & Lariscy, 2015; Zheng et al., 2018). For example, Benette & Gabriel (2001) stated that, "a well-managed and carefully nurtured corporate reputation can be stored over time to the extent that banked goodwill cushions the adverse consequences of bad publicity" (p. 390).

The theoretical explanation for the buffering effects of reputation can be lent from Festinger's (1957) cognitive dissonance theory. According to the theory, consumers are motivated to selectively pay attention to information that is consistent with their preexisting beliefs. This psychological inclination of reclaiming and construing information according to an individual's previously held beliefs and preferred suppositions is confirmation bias (Nickerson, 1998; Tao, 2018). Confirmation bias can be viewed as a coping strategy for

reducing discomfort experienced as adverse pressure produced by conflicting perceptions between existing beliefs (e.g., prior-relationship) and newly observed information (e.g., a crisis incident or a corporate response) (Elliot & Devine, 1994; Festinger, 1957; Tao, 2018). For example, in order to keep internal cognitive consistency, individuals will likely discount or dismiss negative information about a company that they previously trust (Dawar & Pillutla, 2000; Dowling, 2001; Sohn & Lariscy, 2015).

On the other hand, the expectancy violations theory would argue the opposite, as the theory posits that people drastically change their prior assessments of specific others when observing the unexpected in the interpersonal relationships (Burgoon, 1993; Afifi & Metts, 1998). Expectancy violation theory is applicable to stakeholders' relations with organizations because people tend to view companies as conscious social actors (Davies, Chun, da Silva & Roper, 2001, 2004; Dowling, 2001; Love & Kraatz, 2009; Sohn & Lariscy, 2015). Publics see organizations as exchange partners that possess characters such as trustworthiness and reliability, and evaluate them based on these qualities (Love & Kraatz, 2009; Sohn & Lariscy, 2015). Positive evaluation of a company prior to a crisis leads to higher expectations that the trusted organization will accept the responsibility for its misconduct and take corrective actions in response to the crisis, as in a contractual relationship. Therefore, an organization's defensive response to their wrongdoing will go farther against what had been expected of them, leading to an even heightened perception of betrayal or morality violation (Barnett, Jermier & Lafferty, 2006; Helm & Tolsdorf, 2013; Zheng et al., 2018).

Scholars taking the view of expectancy violation theory will consider that positive reputation would boomerang in crisis communication (Sohn & Lariscy, 2015; Lyon & Cameron, 2004; Zheng et al., 2018). The study by Zheng et al. (2018), for example, conceptualized corporate reputation as an attitudinal evaluation of a company and confirmed that more positive corporate reputation increased perceptions of morality violation toward the firm in a crisis. Similarly, it has been found that customers may experience even a greater sense of betrayal and a higher violation of fairness if their previous level of satisfaction or trust in the company was higher. It was described as a "love becomes hate" phenomenon

(Grégoire & Fisher, 2008), just as an individual may be more distressed when being criticized by a group they identified with or when offended by a close friend (Moreland & McMinn, 1999; McCullough, Rachal, Sandage, Worthington, Brown & Hight, 1998).

Organizational and social psychologists also found amplifying effect of relationship intensity on perception of betrayal (Brockner, Tyler & Cooper-Schneider, 1992). In that way, customers are likely to take offense and feel especially hurtful if they consider themselves mistreated by a company they used to trust. In other words, while infringement of fairness norms generates a sense of betrayal, consumers who have a stronger relationship with a firm may perceive an even greater level of such violation (Grégoire & Fisher, 2008).

The above examples overall suggest that there is a substantial effect of previous relationship quality on the course of fairness assessment. The concept of relationship quality in the interpersonal context is much the same as the concept of trust in a company or corporate reputation in business settings. In earlier research on service selling, quality relationship involved constructs of trust and relationship satisfaction, where trust refers to customer's confidence that a company is dependable, and relationship satisfaction is an affective state based on the evaluation of all relationship outcomes over time (Crosby, Evans & Cowles, 1990). Later research on retailer-consumer relationship proposed an additional dimension of commitment, defined as a customer's desire to maintain a relationship with a firm (De Wulf, Oderkerken-Schröder & Iacobucci, 2001).

In communication practices, organizations maintain the definitive objective to build positive relationships with their publics, and the concept of organization-public relationship (OPR) has been extensively studied (Broom, Casey & Ritchey, 2000; Cheng & Lee, 2023). Earlier theorization of organization-public relationship (OPR) suggests that the construct includes several subset dimensions, such as trust, commitment, and satisfaction (Grunig, L.A., Grunig, J. E. & Dozier, 2002; Hon & Grunig, 1999). The current study examines previous organization-public relationship that is denoted by the concept of trust as it is the most central dimension (Bruning, Castle & Schrepfer, 2004; Cheng & Lee, 2023).

In sum, previous theoretical propositions offer explanations of how previous

organization-public relationship can be instrumental. In a time of crisis, previously-held quality relationship with an organization can affect the cognitive appraisal of corporate information. Following the expectancy violation theory and the existing literature focused on prior-relationship and betrayal assessments, we consider previous OPR can intensify the effect of perceived defensiveness in the crisis response messages on sense of betrayal (Grégoire & Fisher, 2008; Crosby et al. 1990; De Wulf et al. 2001; Hennig-Thurau et al. 2002; Sohn & Lariscy, 2015; Zheng et al., 2018). Previous research has not yet tested how the effect of corporations' crisis responses may interplay with previous organization-public relationship in a communication process that involves perception of betrayal and intention of online retaliation. In addition, how audience perceptions of crisis responses and previous OPR may interact in a data breach crisis has not yet been tested in previous studies.

Thus, extending the previous hypothesis that perceived defensiveness in crisis response increases perception of betrayal, and following the researchers who have found that relationship quality would intensify individuals' expectation of a company's moral obligations and acceptance of crisis responsibility, we further propose that previous organization-public relationship is a moderator in the effect path from stakeholder's assessment of corporation's crisis response to perception of betrayal, with the following hypothesis:

H3: Previous organization-public relationship moderates the effect of perceived defensiveness in crisis response on perceived betrayal. That is, as relationship quality increases, individuals experience a stronger effect of response defensiveness on perceived betrayal.

Self-Disclosure and Online Megaphoning

The formation process of negative online WOM may not be thoroughly conceptualized without consideration of individuals' self-disclosure behaviors on social media. In previous literature, the use of social media has been closely examined with relations to the psychological and societal implication of online self-disclosure (e.g., Nguyen et al., 2012;

Smock, Ellison, Lampe & Wohn, 2011; Trepte & Reinecke, 2013). The psychological disposition for online self-disclosure is linked with the use of social media, such that individuals with a stronger inclination of self-disclosure show a higher tendency to use social media more. In the meantime, the use of social media raises the level of willingness to self-disclose online. Scholars suggested that there is an effect of socialization in the online environment, in which self-disclosing behaviors are reinforced through social capital in the virtual social networks (Trepte & Reinecke, 2013). That is, self-disclosure can be rewarded via increased social contacts and friendships (Hargittai & Hsieh, 2010; Nosko, Wood & Molema, 2010; Steinfield, Ellison & Lampe, 2008).

Self-disclosure has been found to be an elemental attribute for communicating in social media. The concept of self-disclosure is defined as an individual's verbal and nonverbal communication revealing information about him/herself (Cozby, 1973; Greene et al., 2006; Nguyen et al, 2012). Using social media almost by default requires a certain level of self-disclosure, as the online platforms allow users to share their own life such as by posting messages about their daily events and uploading pictures of themselves, and chat about these contents with other users on the friends-lists or the audiences pre-determined in other settings (Smock et al., 2011). In fact, intimate self-disclosure has been found to be a very common practice on social media (Joinson, Reips, Buchanan & Schofield, 2010; Ledbetter, Mazer, DeGroot, Meyer, Mao & Swafford, 2011; Nguyen et al., 2012).

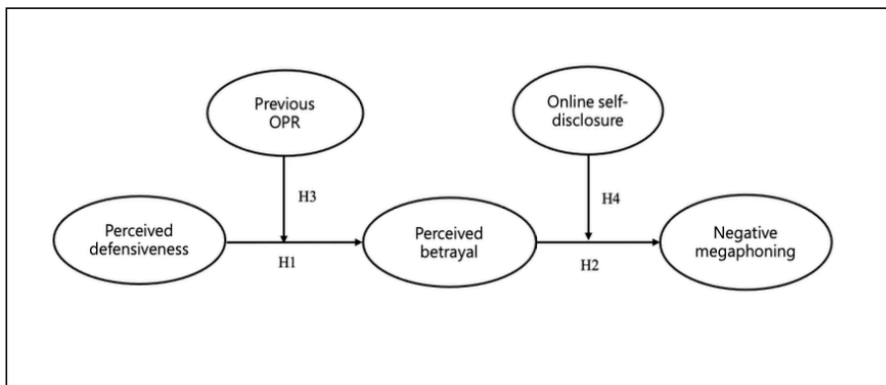
Online self-disclosure has been identified as a compelling factor in how and how much people use social media. In the longitudinal panel study conducted by Trepte and Reinecke (2013), it was found that individuals' disposition for online self-disclosure had a positive effect on their use of social media, which in turn further strengthens their disposition for more self-disclosure online. In other words, online self-disclosure is driven by social and psychological motives and serves as a vital factor in the processes of digital communication. But the concept has been rarely considered when studying online word-of-mouth, a consumer-generated communication that employs digital tools (Rosario et al., 2020). Previous crisis communication research that attempted to address online word-of-mouth has

also yet to examine the influence of psychological deposition of self-disclosure.

The psychological deposition of self-disclosure may include fulfilling an individual’s need for expression, self-clarification, social validation, social control, and relationship development (Chung & Cho, 2017; Derlega et al., 1993; Lin et al., 2016). Online self-disclosure is in a form of public broadcasting on social media that mimics personal contacts and provides social satisfactions just like self-disclosure in interpersonal relationships (Chung & Cho, 2017; Lin et al., 2016). Driven by such psychological and social needs of online interactions and connections, individuals who possess a higher degree of online self-disclosure can be further motivated to have their personal voice heard by their network of audiences on social media when perceiving a sense of betrayal in the wake of a corporate response to a crisis. Consequently, it is likely that online self-disclosure can deepen the effect of perceived betrayal on negative megaphoning in the crisis communication process. To better depict the process of how negative megaphoning is elicited on social media platforms during an organizational crisis, we propose that online self-disclosure interplay with the perception of betrayal in affecting the behavioral intention to engage in the online communication form of retaliation, with the last hypothesis as follows:

H4: Deposition of online self-disclosure moderates the effect of perceive betrayal on intention of negative megaphoning. That is, online self-disclosure will increase the effect of perceived betrayal on negative megaphoning.

Figure 1
The proposed model and hypotheses



Method

Pilot Study

To provide reference materials that enable research participants to make reliable assessments when answering questions in the formal survey, a pilot study was conducted. The present study selected the case of Facebook—Cambridge Analytica data scandal as the context to explore the psychological process of crisis communication in corporate data breaches. The social media posts of Mark Zuckerberg, the Facebook CEO at the time of the crisis were adapted in developing the background materials as the official announcements that were in about the same length. The pilot study pre-tested two versions of statements that were designed to prompt varying levels of perceptions, with one statement mainly acknowledging the data breach incident, and the other including clearer apologies and a plan of corrective actions. The materials were tested on a sample size of 37 college and graduate students (16 undergraduates and 21 graduates; 24 females and 13 males). The results showed that the two crisis response statements were confirmed to be perceived significantly different in the level of perceived defensiveness ($F_{(1,35)}=33.83, p < .01$).

Formal Survey

Following the pretest of case materials, an online survey was formally conducted among students in four universities in Taiwan. We used college students as our purposive samples because of their familiarity with social media, making them appropriate research participants for the purpose of our study. Recruitment information for research participation was placed on student organizations' Facebook fanpages and on PTT, a popular social networking site among college students in Taiwan. After screening for qualified participants with the attention-check question that asked whether they have read the survey material carefully, the final sample size was 716. In the final sample, the average age of the participants was 24. About 63% of the respondents were female, and about 37% were male. In terms of education

level, the majority reported college-level (about 61%), and some stated graduate-level (39%). Almost all the respondents reported that they used social media everyday (about 97%).

In the survey, the respondents were first asked about their general use of social media and impression about the Facebook, followed by reading the company's statements. With a randomizer embedded in the survey link, half of the respondents viewed the announcement that employed a justification response strategy, and the other half viewed the announcement that was in a more apologetic tone and addressed more corrective actions as a rebuilding response strategy in the crisis situation. Lastly, the respondents were asked about their reactions with regards to perception of betrayal and intention of negative megaphoning on social media.

Measurements

Perceived defensiveness in crisis response

The perceptions of organization's crisis responses were evaluated based on Coombs & Holladay's (2002) conceptualization, in which crisis response strategies may span from accommodation to defense. The respondents rated the how they perceived the corporate reactions to the crisis with three items, including "Facebook was willing to take responsibility (reversed)," "Facebook conveyed an apology (reversed)," and "Facebook did not take on its responsibility." All the three items were measured on 5-point Likert scales with higher scores indicating a stronger agreement level ($M=3.16$, $SD=1.49$, *Cronbach's* $\alpha=.94$).

Perceived betrayal

Based on Grégoire and Fisher (2008), the level of perceived betrayal was assessed with four items, including "I felt cheated," "I felt betrayed," "the company/Facebook tried to abuse users like me," and "the company/Facebook violated social expectations." All the three items were answered on 5-point Likert scales with higher scores indicating a greater level of agreement ($M=4.02$, $SD=.89$, *Cronbach's* $\alpha=.93$).

Previous organization-public relationship

Pre-existing perception of the corporation was conceptualized as the previous

organization-public relationship (OPR) and proposed as a moderator for the effect of crisis response on sense of betrayal in the current study. The measurements for previous OPR that focused on trust were adapted from earlier studies on organization-public relationship (i.e., Ki & Hon, 2007; Hon & Grunig, 1999). The four items were: “This organization/Facebook treats users like me fairly and justly,” “I am very willing to let this organization/Facebook make decisions for people like me,” “I feel very confident about this organization’s skills”, and “I think it is important to watch this organization/Facebook closely so that it does not take advantage of people like me (reversed).” All the items were also measured on 5-point Likert scales with higher scores indicating stronger level of agreement ($M=3.47$, $SD=1.17$, *Cronbach’s* $\alpha=.88$).

Online self-disclosure

The level of self-disclosure on social media was proposed as a moderator in the current study. The measurements of self-disclosure on social media were adapted from the online self-disclosure items used in Gibbs, Ellison, and Heino (2006). The four items were “I am always honest in my self-disclosure on social media,” “The thing I reveal about myself on social media are always accurate reflections of who I really am,” “I often discuss my feelings about myself on social media,” and “I usually communicate about myself for fairly long periods at a time on social media.” All the four items were also measured on 5-point Likert scales where higher scores indicate stronger level of agreement ($M=3.98$, $SD=.91$, *Cronbach’s* $\alpha=.93$).

Negative megaphoning on social media

The intention to engage in negative information dissemination on social media was measured with items adapted from the Information Transmitting Behaviors scale developed and tested by Moon et al. (2016). Six intention items were composed as a compound scale of negative megaphoning behaviors, such as “I would spontaneously share some negative reports about Facebook on social media,” and “If there is someone who says a good word for the Facebook, I would write comments with the opposite view.” The items were also measured on 5-point Likert scales of agreement with a higher score meaning a greater level

of agreement ($M=3.80$, $SD=1.16$, *Cronbach's* $\alpha = .96$).

Results

SEM procedures and analyses

In addition to the reliability assessment, a confirmatory factor analysis was conducted to ensure the measurements' construct validity, prior to testing the conceptual model. The average extracted variances (AVE) for all factors ranged between .79 and .91, and the composite reliability (CR) values were between .94—.98, as shown in Table 1, indicating good convergent validity. The heterotrait-monotrait (HTMT) ratios for pairs of constructs were all below the suggested value of .90 (Henseler, Ringle & Sarstedt, 2015), which also provided support of discriminant validity. The structural equation modeling procedure was performed using JASP Version 0.17.2, with the method of the maximum likelihood being used for model estimation. In the conceptual model, as shown in Figure 1, perceived defensiveness was entered as the independent variable, perceived betrayal as the mediator, and negative megaphoning as the outcome variable; additionally, the interaction term of perceived defensiveness and previous OPR was tested for its effect on the perception of betrayal, and the interaction term of perceived betrayal and online self-disclosure was tested for its effect on negative megaphoning. The Hypothesis testing of data analysis indicated good model fit (RMSEA = .04, 90% C.I., RMSEA = .04 [.038, .066], SRMR = .08, CFI = .94). Model *chi-square* = 818.46 ($df=148$, $p<.01$). The structural equation modeling analysis results are reported in Figure 2.

Hypothesis testing

Following the modeling analysis, the paths in the conceptual model were then inspected to address the proposed hypotheses in the study. The data analysis outcomes are reported below:

Hypothesis 1. The first hypothesis postulated that perceived defensiveness in crisis

communication response would provoke perceptions of betrayal in the process of crisis communication. The path between perceived defensiveness and perceived betrayal was statistically confirmed to be positive (standardized path coefficient=.37, $p<.001$). Thus, H1 was supported.

Hypothesis 2. Perceived betrayal was proposed to further predict intention of negative online megaphoning. The results indicated that the path from perceived betrayal to negative online megaphoning was also statistically positive (standardized path coefficient=.25, $p<.01$). Hence, H2 was supported.

Additional analysis was performed to test whether perceived betrayal was a mediating factor that is affected by perceived defensiveness in crisis response and further predicts negative megaphoning on social media. To examine this mediation process, we inspected the indirect effect in the paths from perceived defensiveness to negative megaphoning through perceived betrayal. The results showed the indirect effect was significant ($\beta = .45$, $p<.05$, 95% CI [.42–.50]), confirming the role of perceived betrayal as a central mediator in the online crisis communication process that results in negative megaphoning.

Hypothesis 3. The H3 addressed the moderating influence of previous organization-public relationship, which modify the effect of perceived defensiveness on perceived betrayal. The statistical result showed that the effect path was positive (standardized path coefficient=.32, $p<.01$), indicating that better relationship with the organization would intensify individuals' sense of betrayal. Based on the analysis, H3 was supported.

Hypothesis 4. In the last hypothesis, online self-disclosure was proposed to be a moderator in the effect path from perceived betrayal to online negative megaphoning. The analysis showed that online self-disclosure did reinforce the effect of perceived betrayal on eliciting more negative megaphoning on social media ($\beta=.23$, $p<.001$). Therefore, H4 was confirmed.

Further analysis was performed to test the mediation effect of the interaction term of perceived betrayal and online self-disclosure in the model. The indirect effect in the paths from perceived defensiveness to negative megaphoning through this interaction term was

inspected. The results showed the indirect effect was significant ($\beta=.27, p<.001, 95\% CI [.24—.31]$), confirming the mediating effect of the moderation term in the online crisis communication process.

Table 1
Results of confirmatory factor analysis

Factors	Items	Factor loading	AVE	CR
Perceived Defensiveness	PD1	.95**	.91	.97
	PD2	.95**		
	PD3	.96**		
Previous-OPR	PO1	.96**	.91	.98
	PO2	.98**		
	PO3	.95**		
	PO4	.93**		
Perceived Betrayal	PB1	.94**	.80	.94
	PB2	.97**		
	PB3	.84**		
	PB4	.81**		
Online Self-Disclosure	SD1	.95**	.79	.94
	SD2	.92**		
	SD3	.86**		
	SD4	.83**		
Negative Megaphoning	NM1	.94**	.83	.97
	NM2	.95**		
	NM3	.95**		
	NM4	.89**		
	NM5	.89**		
	NM6	.85**		

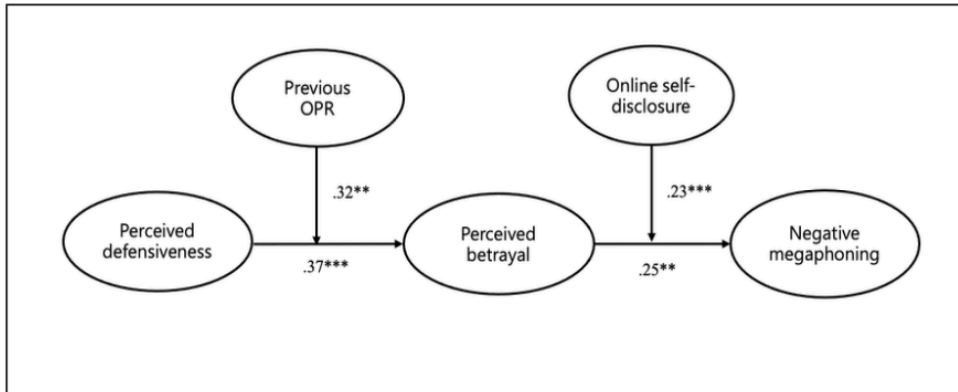
Note: AVE= average variance extracted, CR= composite reliability. ** $p < .01$

Table 2
Correlation coefficients among variables

	PD	PO	PB	SD	NM
PD	1				
PO	.02	1			
PB	.72*	.50**	1		
SD	.04	.86**	.50**	1	
NM	.55**	.72**	.85**	.72**	1

Note: PD=perceived defensiveness, PO=previous OPR,
PB=perceived betrayal, SD=online self-disclosure,
NM=negative megaphoning. ** $p < .01$, * $p < .05$

Figure 2
The final model and path coefficients (Note: *** $p < .001$, ** $p < .01$).



Discussion & Conclusions

The theoretical contribution of the current study is evident, as past research focused on the efficacy of crisis response strategies and the relevant crisis communication outcomes, largely from a cause-effect perspective. Taking a different trajectory, the current study adopts a more socio-psychological perspective and a more process-oriented approach. Our proposed integrative model tests the effect of crisis response on negative online megaphoning as mediated through the perception of betrayal, with previous organization-public relationship and online self-disclosure as two moderating factors in the route. Such conceptualization goes beyond the prescriptions of crisis response strategies in the SCCT and illuminates important socio-psychological factors in the crisis communication process, which have not yet been adequately addressed before.

Specifically speaking, the key findings in the study include: (1) perception of betrayal plays an important role in driving negative WOM that continues to hurt corporate image in the event of crisis; (2) the concept of previous OPR explains the results of why positive impression about a company may backfire and deepen the level of perceived betrayal in a crisis situation; and (3) the prediction of negative megaphoning on social media involves an interaction effect of perceived betrayal and online self-disclosure. These findings carry meaningful implications for previous literature on justice theory, expectancy violation theory, self-disclosure and negative megaphoning on social media, and the realm of crisis communication research.

First, echoing the justice theory and its relevant literature on expectancy violations (Burgoon & Miller, 1985; Brockner & Wiesenfeld, 1996; Jones & Skarlicki, 2013; Roh, 2017), our findings showed that perceived betrayal, as the cognitive discomfort experienced by individuals who perceived the discrepancy between what was expected of the company and what the company actually did during a crisis, can activate retaliation on social media. This finding supports the proposition that crisis communication process is cognitively driven by perception of betrayal, and that online retaliation in a corporate crisis is more based on

assessments of how the firm violates fundamental norms of fairness. Just as argued and tested by Grégoire and Fisher (2008), perceived betrayal is a different construct from negative feelings such as anger, and it pertains to cognitive reasoning in the perceptual process. Based on the findings, we also maintain that online negative megaphoning in a crisis is not merely a response to an emotion or impulse, but an action that likely demands higher tenacity and persistence in publics' efforts.

Additionally, the findings on the role of previous OPR as the pre-existing perception about the company are important. Prior relationship with the company in the study is not only confirmed to be an important antecedent of betrayal perception but an interplaying factor that sway the influence of corporations' crisis responses. It was observed in our results that the defensiveness in corporate response is likely to be conceived at a higher rate when publics previously hold quality relationship with the firm, leading to a greater level of perceived betrayal. The investigation on prior organization-public relationship in the proposed model is an extension of earlier scholarly quests about the effect of corporate reputation in a crisis (Barnett et al., 2006; Helm & Tolsdorf, 2013; Sohn & Lariscy, 2015). More aligned with the views of justice theory and expectancy violation theory, the findings show a boomerang effect of the pre-existing cognitive representation about a company's abilities and characters, which resonates with the findings by Zheng et al. (2018).

Scholars have contended that prior reputation involves cognitive evaluation of the firm's past performances, which results in an expectation of what the company will and should do (Schwaiger, 2004; Ruth & York, 2004; Zheng et al., 2018). Positive prior reputation or relationship with the organization increases the expectancy held by publics that the firm would do the right thing—accept the responsibility and apologize through due diligence following a crisis. This explains the moderating function of prior OPR in the study, such that it elevates the effect of corporate's defensive crisis response on perceived betrayal because the publics sense stronger violations of expectations when a trusted company makes attempts of self-justification for its position when facing a crisis.

The findings on the interaction effect of previous OPR and perceived defensiveness

in crisis response on betrayal perceptions are manifest in our study and offer clear support for the expectancy violation theory. This significantly contributes to the existing literature and debate over the “buffer or backfire” effect around corporate reputation in crises. In the light of the findings, we believe that the propositions along the expectancy violation theory—that people revise their views based on the perception inconsistency between what they anticipate and what they actually see (Burgoon, 1993; Afifi & Metts, 1998; Tao, 2018)—would generally work better in explaining how individuals react to corporate responses that fall short of public expectation and why positive pre-crisis reputation fails to protect the company. However, it is worth noting that our study is only focused on the negative appraisal of the crisis response and adverse betrayal perceptions in the crisis communication process. The halo effect of corporate reputation or previous OPR in crises might still exist in some other more uncertain or extreme situations, such as when factual information of a crisis is less known and thus pre-existing beliefs are potentially more allowed to function as confirmation biases in the processing of crisis messages, as suggested by cognitive dissonance theory (Festinger, 1957). The potential applicability of cognitive dissonance theory to crisis communication may be further investigated in future research endeavors. Regardless, our findings demonstrated that how corporate reputation or OPR prior to a crisis, as a previously-held cognitive assessment of a firm that influences expectancy, functions as a moderator that reinforces the impact of perceived defensiveness in corporate messages on audience perception of betrayal in the crisis communication process.

The results of the structural equation modeling in the current study further showed that the prediction of online negative megaphoning in crisis involves a complexity of variables including online self-disclosure. Online self-disclosure was found to intensify the perception of betrayal in our study. The reasons could be that individuals who already heavily rely on social media for online self-disclosure perceive a higher sense of betrayal as frequent users of the Facebook. More broadly, it could also be that for individuals who often use social media to share information about selves, it takes less cognitive effort to engage in online megaphoning as a retaliation response to a corporate crisis. In other words, the higher degree

of online self-disclosure suggests lower requirement of mental resources to engage in online behaviors and thus facilitates the effect of perceived betrayal on negative megaphoning on social media during the crisis communication process.

Also, as scholars have discussed, the concept of online self-disclosure has many social-psychological implications (Collins & Miller, 1994; Franzoi & Davis, 1985), such as fulfilling an individual's need for expression, self-clarification, social validation, social control, and relationship development (Chung & Cho, 2017; Derlega et al., 1993; Lin et al., 2016). This affords another theoretical explanation that people with higher degree of online self-disclosure are more intrinsically motivated to participate in negative megaphoning upon perception of betrayal. The results imply that voicing for justice on social media during a corporate crisis may also be partially driven by individuals' social-psychological desires such as self-expression and social validation in the virtual world, which can be further explored in future research. Literature suggests that self-disclosure can be revealed by the level of disclosure intent, depth, amount, valence, and even honesty (Wheeless & Grotz, 1976). So, the additional motivational and behavioral dimensions of negative megaphoning can be further explored in the special context of corporate crisis in future studies with different methods, such as qualitative approaches that conduct depth interviews or textual analysis of online contents.

The integrative perspective in the current study that examines the communication effects of crisis response, relationship quality, and perceived betrayal together brings new contribution to the crisis communication literature using SSCT theory (Coombs, 1995, 2007, 2018; Coombs & Holladay, 1996, 2002, 2008, 2012; Coombs & Schmidt, 2000), as well as the later line of studies that tested corporate crisis response's efficacy by crisis types (e.g., Bentley & Ma, 2020; Zhao et al., 2020). Although responsibility attribution can be useful for defining a crisis, the conceptualization of crisis type or cluster may sometimes be a simple generalization and overlook other unique features in crisis scenarios that can be more determining (An & Cheng, 2010; Barkley, 2020). The prescription of crisis response strategy matching with crisis cluster as proposed by SCCT may be challenged especially

when the responsibility is hard to define. In the Facebook-Cambridge data scandal, Facebook can be viewed as a victim harmed by a third party or as an irresponsible company that failed to safeguard users' personal data and caused harm. Other data breach crises may also be placed between the victim cluster and preventable cluster (Kuiper & Schonheit, 2021). Therefore, making a prediction according to the SCCT for data breach crises may be less feasible, suggesting a theoretical potential for further expansion to consider variables of issue involvement and privacy concerns, and integration of other theories to address such new exemplar of corporate crises.

In terms of practical implications, our findings suggest that companies in data breach crisis should strive to lower the perception of defensiveness by issuing apologies that go beyond the level of incident acknowledgment. Based on the results, we suggest companies' response statements be less ambiguous and speak more about their corrective actions. Recent studies on data breach crises also offered similar recommendations for management (Bentley & Ma, 2020; Kuiper & Schonheit, 2021). For example, Bentley & Ma (2020) suggested that responses strategy of apology in data breach crisis could help not only restore corporate reputation, but also uplift consumers' intention of future purchase and lessen negative WOM. Our findings further implied that the goal to demote perceptions of defensiveness in crisis response is particularly crucial in the earlier stage of the crisis communication in data breach incidents. Message components of remorse and apology in the crisis response should be stressed even more if the company has prior quality relationship with its stakeholders or previously holds a favorable corporate reputation in the circumstances of data breach crises. The interaction effect of online self-disclosure and perceived betrayal on negative megaphoning also offer insights for crisis communication practices. Organizations should identify individuals who keenly self-disclose on social media and may tend to voice negative opinions during a time of a corporate crisis for public recognition or social validation. This can be jointed with activities of environment monitoring and social media listening. In sum, communication managers should develop a deeper understanding of their stakeholders and seek to depict the psychological attributes of the audiences as part of crisis prevention

strategies.

All in all, our findings about prior organization-public relationship, perceive betrayal and online negative megaphoning in an integrated model offer fresher insights for future researchers who are interested in adopting a cognitive processing approach in studying crisis communication and in the specific area of social-mediated crisis communication. Most of previous crisis communication literature has been dominated by the research paradigm of SCCT (An & Cheng, 2010; Tao, 2018). In spite of the contribution by that line of crisis communication studies, diverse perspectives should be encouraged for more exploration, since modern crisis types and communication practices are ever changing. Our study takes a different path by incorporating theories that orient on the cognitive-psychological factors and adopting a model-building approach; and the findings suggest applicability of this alternative approach to adding to our knowledge on crisis communication as well as on the crisis communication processes on social media.

We acknowledge the data in our study is limited to college student samples and to the responses to the case of Facebook's Cambridge Analytica scandal. The structural equation modeling results can be retested or validated using different samples, crisis contexts, or cultural backgrounds. We also recommend a broader consideration of research methods in investigating the dynamic phenomenon of online negative megaphoning in crisis situations, as well as theoretical constructs such as message frames, situational factors, and psychological variables that may cast impact on the processing of crisis response information. Interested scholars can also conduct comparisons of different groups of publics or stakeholders during a crisis.

As previous scholars call for more authentic, transparent and ethical communication that is oriented on building trust and credibility with audiences (Baker & Martin, 2015), and communication managers are often more concerned about admitting legal or financial liability in negative incidents (Diers-Lawson & Pang, 2016; Myer, 2016), future researchers can also explore the reasoning process of communication managers in handling crisis and negative megaphoning, as well as potentially incorporate perceived ethicality in understanding

the effectiveness of crisis responses. This leads to our final recommendation that future researchers can further consider topics in the intersections of crisis communication, message processing, and new ethical issues such as cybersecurity, data misuse, privacy, and intended online rumors, which are becoming significant in our society today and worthy of more scholarly and professional attention.

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