Prioritizing relationships: The investment model and relationship maintenance strategies in organizational crises

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ABSTRACT

Crisis communication and crisis management are dominated by research in image repair and restoration, but much has to be done to address the lack of research that engages relational perspectives in these fields. Adopting the investment model (Rusbult, 1980) as a theoretical framework and using structural equation modeling, the study develops a crisis relational maintenance model to explain how organizations can (re)build relationships with publics. Survey results show that publics' commitment and publics' trust are two significant mediators that influence publics' relational behaviors post-crisis. The investment model provides a suitable framework to explain publics' commitment to an organization, with explained variance more than 90 percent, and an organization's relationship maintenance strategies during and post-crisis significantly affect publics' trust. Whether an organization's relationships with the publics can be maintained or repaired depends on whether an organization engages in these relationship maintenance strategies that prioritize publics' need, which can be reciprocated from publics as publics reorient themselves along with the long-term goals and well-being of the relationships. Results of this study call for further attention on relationship maintenance approaches in crisis communication and management research.

1. Introduction

The recent decade has witnessed a rise in crisis communication research and the field has become more interdisciplinary (Ha & Riffe, 2015). Crises are defined as events that "involve a radical departure from the status quo and a violation of general assumptions and expectations, disrupting the 'normal' and limiting the ability to anticipate and predict" (Sellnow & Seeger, 2013, p. 6). Crisis communication and crisis management research focus on mitigating damage brought by such events, and is heavily focused on message options to protect an organization's reputation and image (e.g., image repair theory, Benoit, 1997; situational theory of crisis communication, Coombs, 2006, 2012; Coombs & Holladay, 2002).

However, crisis communication research has overlooked relationships (Avery, Lariscy, Kim, & Hocke, 2010; Coombs, 2000; Liu & Fraustino, 2014). Indeed, Palenchar (2010) pointed out that there is a dire need for crisis communication and management research from relational perspectives. Investigating how organizations can potentially rebuild their relationships with the publics during and after crises not only adds to relational perspectives in crisis communication and management literature, but also provides a foundation to develop theories that embrace the perspective of treating a crisis as an opportunity. Adopting a relational approach, the current study aims to understand factors that influence publics' behaviors towards organizations involved in crises and strategies

available to organizations to repair potentially damaged relationships.

The investment model (Rusbult, 1980; Rusbult, Olsen, Davis, & Hannon, 2001) is a promising theory to shed light on such a question. The model has been adopted in organizational contexts to predict consumers' or employees' commitment (e.g., Bolkan, Goodboy, & Bachman, 2012; Madlock & Dillow, 2012). The relationship maintenance mechanisms extending the investment model (e.g., Etcheverry & Le, 2005; Merolla & Harman, 2019 in press; Wieselquist, 2009) should also enlighten what efforts an organization needs to take in crises to rebuild and even possibly strengthen the damaged relationship.

This study uses the investment model framework to (1) test the applicability of the model to predict publics' commitment, and (2) investigate factors that affect publics' relational behaviors and how relationship mechanisms manifest in the context of organizational crises. After reviewing the literature on the investment model, particularly the role of relationship maintenance strategies and trust in improving relationships, this study proposed and tested a hypothesized relational maintenance model using structural equation modeling. A pilot study was conducted to test the validity and reliability of the measures. The main study following the pilot study also expanded relationship maintenance strategies identified by Shen (2011) in the hypothesized model to give a more detailed understanding of how these strategies influence trust. Procedures and samples of the pilot and main studies were discussed in the method section. Finally, based on the results, the theoretical contributions of the model to the relational perspectives in crisis communication and management were discussed. Limitations and directions for future research were offered.

1.1. Investment model

Relationships are a central concept in public relations research (Ferguson, 1984; Grunig, 2006; Ledingham, 2006), but relationship perspectives in crisis communication and management are lacking (Brown & White, 2010). The investment model, which investigates factors that impact individuals' commitment to a relationship, provides a suitable framework to examine the role of publics' commitment and relationship maintenance strategies in organizational crises.

The investment model predicts relationship commitment in a range of relationship settings such as friendships, romantic relationships, and business relationships (Rusbult, 1980). The development of the model is based on the tenets of interdependence theory (cf. Kelley & Thibaut, 1978), which argues that *comparison value* matters to a person's feeling of satisfaction and attraction in a relationship. Comparison value is either based on a person's past experiences of the relationship or a person's comparison of his or her relationships with other similar relationships (Kelley & Thibaut, 1978).

Following this logic, the investment model posits that commitment to a relationship is predicted not only by the current relationship value, but also by comparison to the alternatives (Rusbult, 1980). Commitment, a central concept in the investment model, is defined as the psychological attachment and tendency to maintain a relationship (Rusbult, Johnson, & Morrow, 1986). If one assumes a long-term orientation in the relationship, he or she will consider the outcomes and impact on the relationship when making decisions (Rusbult et al., 2001).

Based on interdependence theory, the discrepancy between the relationship value of the *best* alternative available to the person and the current relationship value predicts a person's commitment (Rusbult, Martz, & Agnew, 1998), which is termed alternative quality in the model. According to Rusbult et al. (1998), alternative quality refers to the "perceived desirability of the best available alternative to a relationship" (p. 359). For example, a person involved in a romantic relationship may find him or herself in a situation where families or friends can already fulfill his or her needs. If so, staying in the romantic relationship can become less appealing given that the alternative relationships are equally or even more fulfilling. Similarly, if an organization has many competitors and the organization does not stand out among similar organizations, shareholders or consumers might be inclined to abandoning the relationships with the organization when crises happen and seeking to build a similar relationship with an alternative organization.

In addition to the interdependent nature of the relationship, the model also adds investment size as a significant predictor of relationship commitment. Investment size is defined as "the magnitude and importance of the resources that are attached to a relationship—resources that would decline in value or be lost if the relationship were to end" (Rusbult et al., 1998, p. 359). Investment size is positively related to commitment based on the logic that the more resources a person invests, the more cost it would be for the person to withdraw from the relationship (Rusbult, 1980). In the organization-public contexts, examples include consumers' reliance on the product/service or shareholders' financial involvement with the organization.

Finally, relationship satisfaction is another independent variable in the model that is positively related to commitment. Relationship satisfaction is defined as "the positive versus negative affect experienced in a relationship" and "is influenced by the extent to which a partner fulfills the individual's most important needs" (Rusbult et al., 1998, p. 359). For an organization, it can be hypothesized that the more satisfied a person is with the current relationship, the more committed the person is to the organization. Satisfaction is also identified as a key dimension of organization-public relationships, defined as "favorable response to the reinforcement of positive expectations" (Grunig & Huang, 2000, p. 45). Namely, satisfaction in the investment model, when applied to the organization-public context, comprises of fulfilling needs through the organization's products or services and the general positive expectations and feelings towards the organization.

Taken together, commitment of a relationship is predicted by three independent variables in the model—investment size, alternative quality, and relationship satisfaction. Commitment to a relationship is positively related to investment size, negatively related to alternative quality, and positively related to relationship satisfaction (Rusbult, 1980; Rusbult et al., 1986). In this sense, publics' long-term orientation to the relationship goals with an organization is determined by how much resource and material the publics invest into the organization or how intertwined their life is with the organization, how satisfied they are with the current relationship situation with the organization, and to what extent there is a similar organization with which publics can replace the current one.

There might be hesitation in applying yet another interpersonal theory to investigate relationships between an organization and its publics. As Coombs and Holladay (2015) warned that interpersonal relationships might not fully capture organization-public relationships. However, the investment model has already been applied in organizational contexts to predict job satisfaction and employee commitment (e.g., Farrell & Rusbult, 1981; Madlock & Dillow, 2012), brand commitment (e.g., Breivik & Thorbjørnsen, 2008; Sung & Campbell, 2009; Sung & Choi, 2010), and consumers' revisit and word-of-mouth of an organization (e.g., Bolkan et al., 2012). These empirical studies show that the model has predictive value in various organizational settings.

Second, the problematic aspect of applying an interpersonal theory to organization-public relationships is usually that such relationships can be conceptually distinct from interpersonal relationships, meaning that fundamental dimensions underlying organization-public relationships might be different from interpersonal ones. Yet, the investment model predicts commitment to a relationship (the interdependence in any form of connection), rather than define what a relationship is.

Third, the notion of alternative qualities bears important implications for crisis communication and management research to consider. In fact, crisis communication has not fully explored how organizations as an interlinked system (cf. Smith, 2012) might impact an organization's post-crisis dynamics. Engaging alternative quality sets up a comparative context, where an organization does not exist in a vacuum with publics, but in a constellation of organizations and links aggregated into a broader system such as a community or an industry (Heath, 2013). Utilizing the notion of alternative qualities is an important step to capture the dynamics between an organization and its competitors/peers in a crisis context

In order to understand how applicable the investment model is in the public relations context to predict publics' commitment to an organization, and whether publics' investment size, satisfaction with the relationship with the organization, and other options available to them affect such commitment, the following hypotheses are proposed.

H1. Publics' commitment to organizations is positively related to the investment size of the publics (*H1a*), relationship satisfaction (*H1b*), and is negatively related to alternative quality (*H1c*).

1.2. Relationship maintenance

The investment model not only provides a strong tool to predict commitment in a relationship, but also a theoretical framework to analyze how relationship maintenance may work when the relationship is damaged. Relationship maintenance is particularly important to crisis communication and management as organizational crises put strains on relationships between organizations and publics. How to re-establish the relationships and even make the relationship stronger is among the most pressing issues (Brown & White, 2010; Park & Reber, 2011). Indeed, researchers have explored the importance of relationship maintenance within the organizational contexts, in particular the superior-subordinate relationships (Lee & Jablin, 1995; Lee, 2001; Waldron, 1991) and management-employee relationships (Shen, 2011). These studies on one hand investigated communication strategies and tactics utilized in maintaining such relationships, and on the other hand examined factors such as organizational structure and perceived procedural justice in affecting maintenance outcomes. These works show promising potentials of engaging the maintenance perspective in crisis communication between organizations and their publics.

It is worth noting that the definitions of relationship maintenance vary in different contexts. Relationship maintenance extended from the investment model emphasize keeping the relationship as it is, even though it has been applied to interpersonal relationship dilemmas. Yet, relationship maintenance can possess broader meanings and be carried out in various forms such as keeping a relationship in existence, in a specified condition, in a satisfactory state, and in repair (Dindia, 2003). The current project may lean more towards the view of maintenance as repairing an existing relationship to at least keep it in existences, but fully acknowledge that relationship maintenance is not only to preserve the status quo.

Nonetheless, initiating relationship maintenance strategies in a crisis setting is important. Crisis create challenges for the interdependence between an organization and its publics. Crises are events that "involve a radical departure from the status quo and a violation of general assumptions and expectations, disrupting the 'normal' and limiting the ability to anticipate and predict" (Sellnow & Seeger, 2013, p. 6). In a crisis, the legitimacy of an organization and the well-being of the interdependent relationships with both internal and external stakeholders are at stakes (Massey, 2001). In this sense, an organizational crisis is similar to an interdependence dilemma as "the immediate well-being of one person is incompatible with the immediate well-being of the partner and relationship" (Rusbult et al., 2001, p. 88) and the interdependent nature of a relationship between an organization and its publics is threatened. Admittedly, organizations depend more on various publics to survive and thrive, but publics do depend on organizations to fulfill and satisfy their needs. In a crisis situation, publics may re-evaluate the existing relationships with the organization, in particular, to what extent they would continue to depend on the organization to satisfy their needs, whether them be materialistic or not. In the meantime, organizations need to regain their legitimacy (Zimmerman & Zeitz, 2002), which is dependent upon factors including publics' trust (Bachmann, Gillespie, & Priem, 2015; Huang, 2008; Mazzei & Ravazzani, 2015)

When interdependence dilemmas happen, a person can either give up the relationship entirely or salvage the relationship from the damage. Human beings may have an intrinsic tendency to serve self-interests and avoid immediate harms, but transformation can indeed happen in interdependence dilemmas when a person shifts from self-interest perspectives to ones that benefit both parties and that eventually contribute to the long-term goals of a relationship (Rusbult et al., 2001). However, certain steps need to be followed in order for this transformation process to happen.

Rusbult, Verette, Whitney, Slovik, and Lipkus, (1991) show four consequences in interdependence dilemmas that have implications for public relations: exit, voice, loyalty, and neglect. Exit is to abandon the relationship. Voice is to discuss the problems and raise the concerns with the other party. Loyalty is to support the other party. Neglect is to avoid the problems or just wait for the

things to fall apart. These four consequences eventually manifest into two types of behaviors—accommodative behaviors and hostile behaviors (Rusbult et al., 1991). Publics following accommodative behaviors may show loyalty by sticking with the organization and acquiring more information to make informed decisions, and offer suggestions to make things better. In contrast, publics following hostile behaviors may either abandon the relationship, aggressively spread negative word of mouth, and exaggerate the situation.

Research has shown evidence that positive behaviors of a person towards an organization in an interdependence dilemma can be decided by a person's commitment to that relationship (Briones, Kuch, Liu, & Jin, 2011; Bügel, Verhoef, & Buunk, 2011; Simons, Simons, Lei, & Landor, 2012; Rusbult et al., 1991; Yang, 2012). According to Rusbult et al. (1991), "accommodation should be enhanced when a relationship is the 'centerpiece' of meaning in life, because it is closer to the core of one's value system or because one has been socialized to believe that it is of great importance" (p. 56). In other words, the more committed one is to the relationship, the more inclined the person is towards accommodative behaviors.

In an organizational crisis, individuals' commitment to an organization may prompt them to be more inclined to working towards a solution with the organization. Commitment in this situation manifests into two distinct relational behaviors towards the organization—individuals' having increased chance to engage in constructive relational behavior, and decreased likelihood to be hostile towards the organization. Even though in close relationships responding constructively when the other is hostile can be considered as accommodating, given that in the context of a crisis the stakes for organizations are much higher, individuals' accommodative relational behaviors are conceptualized as their constructive adjustment to the circumstances that does not jeopardize the relationships. Note the four relational responses reviewed above (i.e. exit, voice, loyalty, and neglect). Accommodation in the crisis context is therefore identified as behaviors that resemble voice and loyalty, where individuals constructively provide feedback, voice their concerns, are willing to defend the organization when necessary and are open to the future prospects of the relationship. In comparison, hostile relational behaviors are represented by individuals' abandonment or ending of the relationship and avoiding having anything to do with the organization in the future. Two hypotheses are proposed:

H2. When an organization is involved in crises, publics' commitment is positively related to publics' accommodative relational behavior towards the organization (*H2a*) and negatively related to publics' hostile relational behavior towards the organization (*H2b*).

H3. Publics' accommodative relational behavior towards the organization is negatively related to publics' hostile relational behavior towards the organization.

1.3. Role of trust in relationship maintenance

Facing organization crises, individuals may adopt a sit-and-see approach. In other words, they are waiting to see how the organization would react. For individuals' transformation process to happen in this situation (i.e. to reorient themselves back to becoming committed to an organization), they need to know that the organization has a similar intention to repair the relationships, which is related to individuals' trust of the organization.

Trust is an essential ingredient of any healthy long-term relationship. In fact, trust is a key determinant of organization-public relationships research in public relations (cf. Grunig & Huang, 2000; Huang, 2001), which is defined as "one's confidence in and willingness to open oneself up to fair and aboveboard dealings with the other party" (Huang, 2001, p. 65). It is not surprising to see that risk and health communication (e.g., Cairns, de Andrade, & MacDonald, 2013; Larson & Heymann, 2010; Menon & Goh, 2005; Shore, 2003; Somera, Lee, Badowski, & Cassel, 2016; Taha, Matheson, & Anisman, 2013) take more effort to engage trust in research and theoretical development than in crisis communication and management.

When crises happen to an organization, the most imminent impact is the loss of publics' trust in the organization (Bachmann et al., 2015), which further impacts publics' relational commitment (Huang, 2008). However, questions remain how to rebuild trust from a relational perspective and what is the role of trust in determining the relational outcomes. Given that trust is an essential ingredient in organization-public relationships (Broom, Casey, & Ritchey, 2000; Broom, Casey, & Ritchey, 1997; Ki & Shin, 2015), insights from how to restore trust in a crisis situation and whether restoring trust can help amend the damaged relationships would help to expand and extend relational perspectives into crisis communication and management.

As illustrated previously, a fundamental purpose of relationship maintenance is to transform one person's self-interests into collective interests. The transformation process creates mirror effects where one person's goodwill is expected to be mirrored by the other party. Wieselquist (2009) showed that forgiveness of a person in interpersonal relationships promotes trust from the other person that eventually leads to constructive behaviors towards solving the interdependence dilemmas. Crises happen because the organization fails to meet publics' expectations or the organization fails to address publics' concerns, thus undermining publics' trust in the relationship. Therefore, it can be hypothesized that when dealing with crises, an organization's relationship maintenance strategies can (re)build the publics' trust in the relationship and that trust is a mediator between such strategies and publics' commitment and subsequent behaviors towards the organization.

Given that empirical research involving relationship maintenance strategies is extremely limited in crisis communication and management research, this study investigates an organization's willingness to sacrifice and willingness to take responsibility as an initial step to open this line of research. Willingness to sacrifice has already been shown to be a key factor to amend interpersonal relationships (e.g., Etcheverry & Le, 2005; Johnson & Horne, 2019 in press; McCullough et al., 1998; Van Lange et al., 1997). It makes intuitive sense to continue to investigate this relationship maintenance strategy in organizational contexts. On the other hand, responsibility has been a central focus in crisis communication and management as one of the purposes of situational theory of crisis
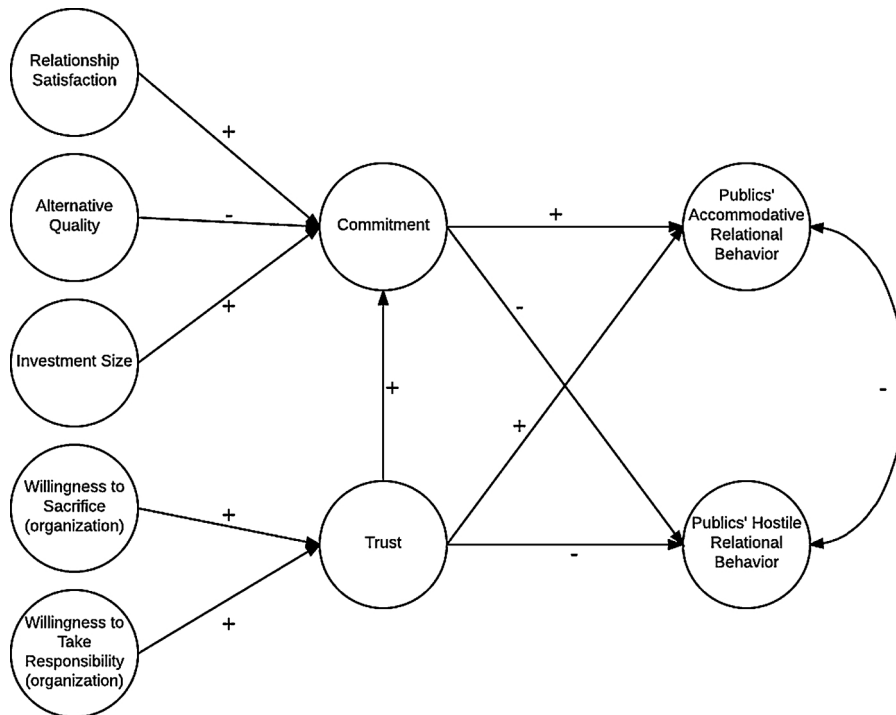
Fig. 1. Proposed relationship maintenance model.

communication (SCCT, cf. Coombs, 2007; Coombs & Holladay, 2002) is to predict publics' attribution of responsibility. Therefore, it is relevant to crisis communication and crisis management to investigate how an organization's willingness to take responsibility in a crisis situation may help amend the relationship.

H4. Organizational relationship maintenance strategies such as willingness to sacrifice (*H4a*) and willingness to take responsibility (*H4b*) during a crisis are positively related to publics' trust in the organization.

H5. Publics' trust is positively related to publics' commitment (*H5a*), and trust is a mediator between organizational relationship maintenance strategies and publics' commitment (*H5b*).

H6. Publics' trust is positively related to publics' accommodative relational behavior (*H6a*) and negatively related to publics' hostile relational behavior (*H6b*).

Taking all the hypotheses together, Fig. 1 shows the proposed relationship maintenance model during a crisis. In this model, relationship satisfaction, alternative quality, and investment size are three antecedent exogenous variables from the investment model, and according to the model, publics' relationship satisfaction and investment size have a positive influence on commitment, while alternative quality has a negative influence on commitment. An organization's willingness to sacrifice and willingness to take responsibility when addressing the crisis are additional two exogenous variables that represent two relationship maintenance strategies. Publics' trust and commitment are two mediators in the model that eventually influence publics' accommodative and hostile behavior.

One may notice the similarities between variables in this proposed model and the relational dimensions identified by Grunig and Huang (2000). Relational dimensions represent the conditions of relationships, namely, what is manifested in a relationship and the state of a relationship. The investment model, coupled with relationship maintenance strategies, on the other hand, treats satisfaction as an antecedent to commitment and maintenance strategies as antecedents to trust. The underlying logic is that individuals need to be satisfied in order to commit to a relationship, and something needs to be done in order for organizations to regain publics' trust. Therefore, treating satisfaction as an antecedent variable makes more theoretical sense for relationship maintenance in a crisis (i.e. individuals' commitment can vary and can change if someone's not satisfied), while using satisfaction and commitment alongside each other at the same level makes more theoretical sense if one is only focusing on the state of the relationship. In other words, this process-based view of examining relationships, in contrast to the static view of relationship dimensions as in OPRs, is more helpful to investigate how factors such as maintenance strategies and satisfaction make a difference as target variables that can be more directly improved or changed by an organization.

2. Method

The current investigation had two studies, one piloting measurements and the other testing key hypotheses and the hypothesized model. One major change from the pilot study and the main study was expanding relationship maintenance strategies as originally proposed in the model to include a comprehensive list of relationship maintenance strategies proposed by Shen (2011). The following section describes the procedures for both the pilot study and the main study, and delineates the added relationship maintenance strategies.

2.1. Pilot study

The purpose of the pilot study is to test the validity and reliability of the scale items measuring variables in the investment model, relationship maintenance strategies of an organization's and accommodative/hostile behavioral intentions of the publics', as they are among the most important variables in the model. The results of the pilot study then informed the main study by adding more items to measure these key variables, and most importantly expanding relationship maintenance strategies.

2.1.1. Participants

The pilot study participants were recruited at a large eastern university through convenience sampling (N = 303). Participants were compensated with extra credits for an entry-level campus-wide introduction to communication course. The majority of the participants were female (58.7%) vs. male (41.3%). Participants self-identified as White (62.7%), Asian/Pacific Islander (14.9%), African American/Black (12.9%), Hispanic/Latino (6.3%), and others (3.3%). The average age was 19.67.

2.1.2. Pilot study procedures

The pilot study was posted on an online research system. The survey in the study was administered through the survey program Qualtrics. Once signing up for the study in the online research system, an external link was provided to the participants to complete the survey through the Qualtrics website.

In the survey, the participants were asked to think of an organization that experienced a major crisis in the past six months. Then the participants were prompted to describe what happened and recall what the organization did following the crisis by writing in a text box on Qualtrics. The definition of a crisis was provided. Then the participants were asked to complete a questionnaire with items measuring key variables for the main study.

2.1.3. Scale validation

In this section, reliability statistic Cronbach's alphas for all the variables in the pilot study were examined. Given that key variables in the hypothesized model would be used as latent variables in the main study, confirmatory factor analysis on the measurement model was performed.

2.1.3.1. Investment model variables. Participants' *satisfaction level, quality of alternatives, investment size*, and *commitment level* were measured by using the instruments from Rusbult et al. (1998) with minor adaptations to fit the organizational context. The participants were asked to rate their agreement on a 7-point Likert scale. Cronbach's alphas were .82 for *satisfaction level*, .76 for *quality of alternatives*, .84 for *investment size*, and .90 for *commitment level* in this pilot study. All these items were presented in detail later for the main study.

2.1.3.2. Constructive and hostile relational behavior. *Constructive relational behavior and hostile relational behavior* were measured by adapting items from Rusbult et al. (1991) on a 7-point Likert scale from strongly disagree to strongly agree. Sample items of constructive behavior included "I gave the organization the benefit of the doubt when it went through the crisis" and "I kept an open mind in terms of my future relationship with the organization." Cronbach's α was .72. Sample items of hostile relational behavior included "I ended the relationship," "I just let the relationship fall apart," and "I avoided having anything to do with the organization following the crisis." Cronbach's α was .86.

2.1.3.3. Organization's relationship maintenance strategies. Two organizational relationship maintenance strategies were tested in this pilot study, *willingness to sacrifice and willingness to take responsibility*. Items measuring *willingness to sacrifice* were adapted from Van Lange et al. (1997) and the participants were asked to rate their agreement on a 7-point Likert scale. Sample items included "The organization was willing to make sacrifices to amend the relationship," "The organization did everything they could to avoid harming the relationship," and "The organization was willing to stall the normal operation to make up for the damaged relationship." Cronbach's α was .92. Items measuring *willingness to take responsibility* were constructed including five items such as "The organization was not afraid of taking responsibilities when needed during the crisis" "The organization was constantly trying to evade their responsibility (reversely coded)" and "If necessary, the organization would find a scapegoat for the crisis." Cronbach's α for this variable was .81.

2.1.3.4. Trust. Items were adapted from Rempel, Holmes, and Zanna, (1985) to measure three dimensions of trust—faith, dependability, and predictability. The participants were asked to rate their agreement on a 7-point Likert scale. Sample items included "Even when I don't know how the organization will react, I feel comfortable that they are able to deal with issues related to

my well-being appropriately," "I know the organization will be concerned about my welfare when making some important decision," and "The organization is unusually dependable, especially when it comes to things which are important to me." Cronbach's α was .90.

2.1.3.5. Measurement model. In this measurement model, all variables were latent variables, with measurement items in the questionnaire used as indicators. The purpose of constructing the measurement model was to test and select items intended to measure latent variables that were to be used for the main study. Unnecessary items were dropped in this phase in order to achieve a measurement model that best represents the latent variables in the structural model. Model fit indices such as root mean score of error approximation (RMSEA), standard root mean square residual (SRMR), and comparative fit index (CFI) were examined.

The overall model showed acceptable data-model fit,? $?^2$ = 1256.58, df = 704, $p < $ .001, RMSEA = .051, 90% CI = [.046, .055], CFI = .91, SRMR = .071. After examining the standardized loadings of each measurement items on the latent constructs, two items were deleted from investment size, one item from hostile behavior, and one item from constructive behavior. After dropping these items, the data-model fit of the measurement model was improved,? $?^2$ = 797.31, df = 491, $p < $ .001, RMSEA = .045, 90% CI = [.040, .051], CFI = .94, SRMR = .056. However, this change left constructive behavioral intention with only two indicators. Therefore, more items were added to measure this variable in the main study, and the measurement results were reported in the later section.

2.2. Main study

In the main study, the sample was drawn from Amazon Mechanical Turk (MTurk) workers. The items measuring variables in the investment model (investment size, alternative quality, satisfaction, and commitment) were the same as in the pilot study, as well as trust and organization's relationship maintenance strategies (willingness to sacrifice and willingness to take responsibility). However, relationship maintenance strategies identified by Shen (2011) were also included in the study to further investigate the effects of these relationship maintenance strategies on individuals' behavioral intentions. All of these items are shown in Tables 1 and 2.

Shen (2011) identified and validated a six-factor twenty-item instrument to measure six relationship maintenance strategies. These strategies include openness, networking, assurances of legitimacy, distributive negotiation, avoiding, and compromising. It should be noted that the instrument is constructed in a context between an organization and its employees. Therefore, the items measuring these relationship maintenance strategies are adapted to fit an organization-publics context. The main study used these relationship maintenance strategies to further examine how these relationship maintenance strategies influence publics' behavioral

Table 1
Variables, Measurement Items, Factor Loadings, and Reliabilities of Relationship Maintenance Strategies (Shen, 2011).

Variables/Items	Factor Loadings	Cronbach's alpha
Assurances of Legitimacy		0.91
The organization was active in expressing how much my relationship with them meant to them.	0.80	
The organization stressed their commitment to us.	0.84	
The organization took our concerns seriously.	0.85	
The organization made a genuine effort to provide response to our concerns.	0.88	
Openness		0.925
The organization encouraged us to express our feelings.	0.85	
The organization was open to communication.	0.87	
The organization kept an open channel for our concerns and opinions.	0.86	
The organization was willing to disclose necessary information.	0.79	
The organization was open to advice and suggestions.	0.86	
Social Networking		0.873
The organization was willing to build coalitions with groups that can help us in the incident.	0.86	
The coalitions that the organization formed during the crisis benefited us.	0.80	
The activities that the organization was involved with other groups during the incident were helpful to us.	0.82	
Compromising		0.783
The organization compromised in order to achieve a solution.	0.77	
The organization tried to achieve a middle-of-the-road solution with us.	0.67	
The organization was willing to give up something in order to solve the problem.	0.78	
Distributive Negotiation		0.691
The organization did everything they could to persuade us until we conceded.	0.68	
The organization applied pressure to make us agree with them.	0.57	
The organization strongly adhered to their point of view until we agreed.	0.72	
The organization would not budge on its view of what happened, even though we did not agree.	0.43	
Avoiding		0.775
The organization gave us as little as attention as possible during the incident.	0.68	
The organization avoided addressing the incident.	0.73	
The organization avoided communicating with us.	0.76	
Positive Relational Reinforcement (Second-Order Factor)		
Assurances of Legitimacy	0.97	
Openness	0.97	
Social Networking	0.95	
Compromising	0.94	

Table 2
Measurement Items, Factor Loadings, and Reliabilities of Variables in the Hypothesized Model.

Variables/Items	Factor Loadings	Cronbach's alpha
Satisfaction		0.923
I feel satisfied with the relationship I have with the organization.	0.81	
The relationship between the organization and me is much better than the others' relationships with this organization.	0.78	
The relationship between this organization and me is much better than my relationships with other organizations.	0.87	
My relationship with this organization is close to ideal.	0.82	
The relationship between me and the organization makes me happy.	0.87	
The relationship between me and the organization does a good job of fulfilling my needs.	0.81	
Alternative Quality		0.846
I can find a replacement of this organization to establish a good relationship easily.	0.76	
My alternatives other than this organization are appealing to me.	0.78	
My needs can be fulfilled in an alternative relationship with another similar organization.	0.81	
Investment Size		0.94
I have put a great deal into the relationship with the organization that I would lose if the relationship were to end.	0.88	
Many aspects of my life have become linked to the organization and I would lose all of this if the organization did not exist.	0.81	
I feel very involved in this relationship between this organization and me.	0.87	
It would create a great deal of inconveniences in my life if the relationship between me and the organization were to end.	0.82	
The organization has become intertwined with my life.	0.87	
Compared to other people who are also involved with the organization, I have invested a great deal in this relationship.	0.86	
Commitment		0.935
I want the relationship with this organization to last for a very long time.	0.84	
I am committed to maintaining my relationship with the organization.	0.89	
I feel very attached to the relationship with this organization.	0.86	
I want to maintain the relationship with the organization.	0.87	
I am oriented toward the long-term future of my relationship with the organization.	0.87	
Trust		0.958
I know the organization will be concerned about my welfare when making some important decisions.	0.86	
Even if I have no reason to expect the organization to share things with me, I still feel certain the organization is as transparent as they can be.	0.82	
The organization is trustworthy.	0.92	
The organization behaves in a very consistent manner.	0.78	
Generally I feel comfortable that the organization is able to deal with issues related to my well-being appropriately.	0.91	
Members of the organization are truthful with us.	0.91	
The organization treats me fairly and justly, compared to other organizations.	0.86	
The organization keeps its promises.	0.92	
Publics' Relational Behaviors		
Accommodative Behavior		0.934
I continued the relationship with the organization after the crisis.	0.91	
I gave the organization the benefit of the doubt.	0.80	
I gave the organization an opportunity to improve.	0.74	
I defended the organization when it was criticized.	0.75	
I gave the organization another chance.	0.84	
I did not end the relationship with the organization.	0.86	
I kept an open mind in terms of my future relationship with the organization.	0.84	
Hostile Relational Behavior		0.933
I ended the relationship with the organization.	0.90	
I would avoid having anything to do with the organization in the future.	0.94	
I boycotted the organization.	0.81	
I did not continue the relationship with the organization.	0.88	
Relationship Maintenance Strategies		
Willingness to take responsibility		0.88
The organization was willing to take responsibilities when needed during the crisis.	0.7	
The organization was constantly trying to evade their responsibility. R	0.81	
The organization was willing to admit their mistakes and errors.	0.68	
The organization was not ready to take responsibilities during the crisis. R	0.84	
If necessary, these was high possibility that the organization found a scapegoat for the crisis. R	0.71	
The organization was more willing to blame the crisis on individuals/employees rather than reflect on their management. R	0.73	
Willingness to sacrifice		0.942
The organization was willing to make sacrifices to amend the relationship.	0.86	
The organization got out of its way to ensure my satisfaction.	0.86	
The organization did everything they can to avoid harming the relationship.	0.87	
The organization was dedicated to solving the problem even though it means that the organization's temporary well-being (the ability to make profits for example) was at the cost.	0.85	
The organization was willing to forgo its core activities to avoid harming the relationship.	0.81	
The organization was willing to stall its normal operation to make up for the damaged relationship.	0.86	

outcomes based on the hypothesized model.

2.2.1. Participants

Participants of the main study were recruited from Amazon MTurk (N = 427). The participants were compensated for their participation, and the compensation varied from 50 cents to a dollar. The average age was 38.27. Among these participants, 71% self-identified as Caucasian/White, 10.8% as African American/Black, 8.4% as Asian/Pacific Islanders, 7.0% as Hispanic/Latino, 1% as Native American, and 1.9% as other. The sample had slightly more females (56.7%) than males (43.3%).

2.2.2. Scale validation

Considering key variables from the investment model, trust, and relationship maintenance strategies such as willingness to sacrifice and willingness to take responsibility were validated in the pilot study, this section mainly examined the measurement model of the additional relationship maintenance strategies and further examine the added items to measure publics' relational behavioral intentions.

2.2.2.1. Relationship maintenance strategies. The study first validated the scale measuring relationship maintenance strategies identified by Shen (2011). Confirmatory factor analysis of a six-factor oblique model indeed showed a good fit, χ^2 = 403.663, df = 194, p < .001, CFI = .95, RMSEA = .052, 90% CI = [.045, .059], SRMR = .097. The items and the standardized loadings are shown in Table 1. However, a problem existed as four of these relationship maintenance strategies *openness, networking, assurances of legitimacy*, and *compromising* were highly correlated (six pairs of correlations ranging from .91 to .96). These high correlations among these four relationship maintenance strategies indicated that they were statistically inseparable. As a result, these relationship maintenance strategies were combined into a higher-level latent factor to represent positive relationship reinforcement. Using openness, networking, assurances of legitimacy, and compromising as the first-order factors of a second-order factor named positive relationship reinforcement also makes theoretical sense, given that these maintenance strategies are oriented mainly towards the other party's concerns and needs (e.g., openness, assurances of publics' legitimacy and compromising) and prioritize the well-being of the relationships (networking and building coalitions with groups that benefit publics) compared to distributive negotiation (maximizing organizational gains and minimizing its losses) and avoiding. In addition, we can assume that organizations usually
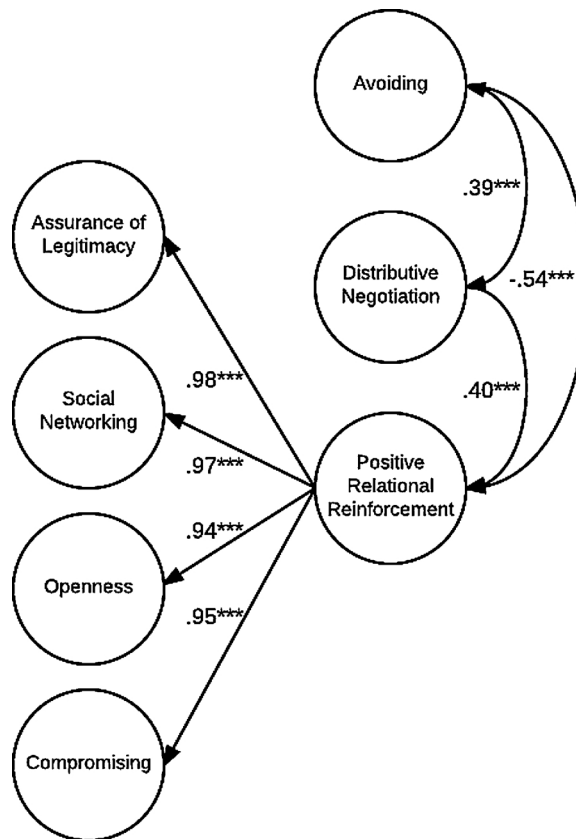

Fig. 2. The final measurement model of relationship maintenance strategies. The overall model showed excellent fit, χ^2 = 461.44, df = 202, p < .001, CFI = .94, RMSEA = .057, 90% CI = [.050, .064], SRMR = .10. Positive relational reinforcement is a second-order factor of assurance of legitimacy, social networking, openness, and compromising.

implement multiple positive relationship maintenance strategies simultaneously to address a crisis. After combining these four relationship maintenance strategies into a second-order factor, the measurement model remained almost the same with the previous six-factor oblique model in terms of the model-data fit, χ^2 = 461.44, df = 202, $p <$ .001, CFI = .94, RMSEA = .057, 90% CI = [.050, .064], SRMR = .10. The final measurement model of the relationship maintenance strategies is shown in Fig. 2.

2.2.2.2. Publics' relational behaviors. For the main study, more items were added to measure publics' relational behaviors. As shown in Table 2, accommodative relational behavior reflected mainly voice and loyalty and hostile relational behavior reflected exit and neglect as responses in Rusbult et al. (2011). A two-factor oblique model of these items showed great data-model fit, χ^2 = 175.49, df = 43, $p <$ .001, CFI = .96, RMSEA = .085, 90% CI = [.072, .098], SRMR = .036, meaning that the measurement validly and reliably captured publics' accommodative and hostile relational behaviors. Cronbach's alpha for accommodative relational behavior saw a huge improvement to .94, and Cronbach's alpha for publics' hostile relational behavior was .93. Items measuring these two behaviors achieved excellent reliabilities.

3. Results

Results from this study provide insights on how relationships between publics and an organization can be amended during and after a crisis, filling a significant gap in the current crisis communication and management research where relational perspectives are lacking. In addition, this study identifies two mediators that can potentially impact relationship building outcomes in a crisis—individuals' self-reported hostile vs. constructive relational behaviors. The following section reports results from hypotheses testing.

The two-step structural modeling procedure was followed in the main study. In the two-step procedure, the overall measurement was first examined to determine whether the latent constructs were properly measured. The overall measurement model of all the key variables in this study achieved great fit, χ^2 = 1674.57, df = 953, $p <$ .001, CFI = .95, RMSEA = .042, 90% CI = [.039, .045], SRMR = .043. Since the measurement achieved great fit without allowing the errors to covary, no adjustment was made and the study proceeded to examine the structural model.

The structural model also achieved good fit, χ^2 = 1923.82, df = 968, $p <$ .001, CFI = .94, RMSEA = .048, 90% CI = [.045, .051], SRMR = .077. All the path coefficients were statistically significant as hypothesized in Fig. 1, except for the path between willingness to take responsibility and trust.

More specifically, publics' satisfaction (β = .75, $p <$ .001) and publics' investment size (β = .24, $p <$ .001) positively influenced publics' commitment to an organization, while alternative quality (β = -.042, $p =$ .014) had a negative effect. H1 was supported. Publics' commitment to an organization had positive influence on their accommodative relational behaviors (β = .55, p $<$ .001), and reduced their hostile relational behaviors (β = -.29, p $<$ .001). H2 and H3 were supported.

In terms of an organization's relationship maintenance strategies, only one of the two hypothesized relationship maintenance strategies significantly affected trust: Willingness to make sacrifice had a significant positive impact on trust, β = .84, $p <$ .001, but the effect of willingness to take responsibility was not significant, β = .015, $p =$ .643. For the role of trust, results showed that publics' trust in an organization had a significant and positive impact on commitment (β = .10, $p <$ .001), as well as their constructive relational behaviors (β = .36, p $<$ .001), and prevented their hostile relational behaviors (β = -.39, $p <$ .001). Therefore, H5 and H6 were supported, but H4 was partially supported.

The model explained 96 percent of the variance of publics' commitment (R^2 = .96), 71 percent of trust (R^2 = .71), 68 percent of publics' constructive relational behaviors (R^2 = .68), and 38 percent of publics' hostile relational behaviors (R^2 = .38). The path coefficients and R-squares are reported in Fig. 3.

3.1. Expansion on relationship maintenance strategies

In the main study, relationship strategies identified by previous research were also measured. Expanded hypothesized model included relational maintenance strategies identified by Shen (2011). As stated during the scale validation, four relationship maintenance strategies were not statistically distinctive, and they were grouped together as positive relationship reinforcement, along with distributive negotiation and avoiding. Even though these maintenance strategies were originally constructed in the context of organization-employee relationships, such relationships where the well-being of the employees are crucial to the success of the organization resemble those between an organization and its external publics. In addition, Shen herself encouraged researchers to investigate the relevance of these strategies to maintain relationships with external constituents. It should be acknowledged, however, that internal relationships such as employee relationships may be more reliable and stable than external relationships. Namely, internal relationships are less prone to changes than such relationships as with customers. This important assumption is important to bear in mind, but establishing preliminary connection between these maintenance strategies and publics' trust and further their relational behaviors provides insights on how relationships might be maintained and repaired in a crisis situation between an organization and its external publics.

During the first step, measurement phase, the overall measurement model showed great fit, χ^2 = 2444.88, df = 1490, $p <$ .001, CFI = .94, RMSEA = .040, 90% CI = [.037, .043], SRMR = .053. Since the measurement model achieved great fit, the study proceeded to examine the structural model. The structural model for this analysis kept the major components of the hypothesized model, where satisfaction, investment size, and alternative quality were the exogenous variables in the model, trust and commitment as two mediators in the model, and publics' accommodative and hostile relational behaviors as endogenous variables in the model.
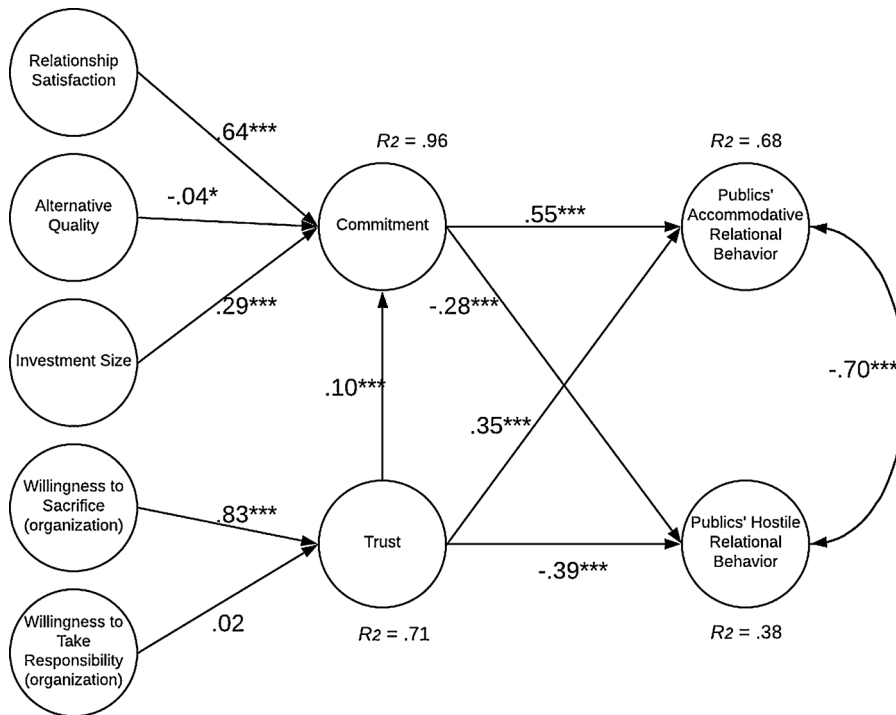
Fig. 3. Standardized path coefficients of the hypothesized relationship maintenance model using structural equation modeling. The model showed good fit, $\chi^2 = 1923.82$, $df = 968$, $p < .001$, CFI = .94, RMSEA = .048, 90% CI = [.045, .051], SRMR = .077.
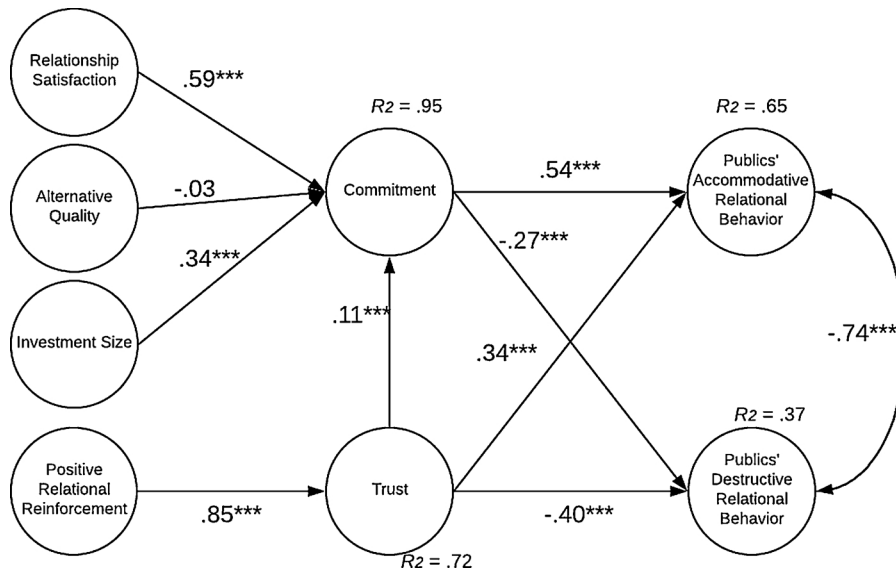***$p < .001$ or $p = .001$, ** $p < .01$, * $p < .05$.

Fig. 4. Standardized path coefficients of the relationship maintenance model using Shen's relationship maintenance strategies. Positive relational reinforcement is a second-order factor that is composed of assurance of legitimacy ($l = .97$, $p < .001$), openness ($l = .97$, $p < .001$), social networking ($l = .95$, $p < .001$), and compromising ($l = .94$, $p < .001$). The model showed good fit, $\chi^2 = 2149.81$, $df = 1204$, $p < .001$, CFI = .94, RMSEA = .044, 90% CI = [.041, .047], SRMR = .065.
***$p < .001$, ** $p < .01$, * $p < .05$.

However, the two relationship maintenance strategies in the hypothesized model were replaced with the relationship maintenance strategies in Shen (2011). The model is shown in Fig. 4.

The structural model achieved good fit, $\chi^2 = 2606.11$, $df = 1508$, $p < .001$, CFI = .94, RMSEA = .043, 90% CI = [.040, .046], SRMR = .063. In this model, positive relationship reinforcement had a significant positive influence on trust, but avoiding and

distributive negotiation did not. The paths of these two strategies to trust were nonsignificant. As Shen (2011) mentioned, distributive negotiation and avoiding were the two relationship maintenance strategies that only prioritize the organization. The nonsignificant path coefficients indicated that these strategies did not contribute to regaining publics' trust in a crisis situation. It should be noted that the crises recalled by the participants were mostly caused by organizations such as faulty products, mistreatment of organizational members and organizational members' misconduct. Therefore, in some cases where an organization is a victim, distributive negotiation or avoiding might be effective as well, but such investigation is out of the scope of the current project.

As a result, the final analysis only included positive relationship reinforcement and dropped distributive negotiation and avoiding. In this final structural model (χ^2 = 2149.81, df = 1204, $p <$ .001, CFI = .94, RMSEA = .044, 90% CI = [.041, .047], SRMR = .065), second-order construct positive relationship reinforcement had a significant impact on trust (β = .84, $p <$ .001). In this model, 71 percent (R^2 = .71) of the variance of publics' trust was explained. The rest of the path coefficients were mostly the same as in the original hypothesized model, except for the path coefficient estimate of alternative quality on commitment (from β = -.04, p = .03 to β = -.03, p = .19). A discussion on this change of significance of alternative quality on commitment is discussed in the later section. All the path coefficients and explained variances of the endogenous variables in the model are shown in Fig. 4.

4. Discussion and implications

4.1. Relationship perspectives in crisis management

This study shows great value in engaging the three independent variables in the investment model in the public relations and crisis communication contexts to predict publics' commitment to an organization. Consistent with previous research (cf. Rusbult, 1980; Rusbult et al., 1986; Rusbult et al., 2001), relationship satisfaction and investment size significantly predict individuals' commitment to an organizational relationship, explaining 96 percent of the variance of commitment.

Commitment entails that a person is willing to persist in a relationship, psychologically attached to the relationship, and willing to orient him or herself to the long-term benefits of the relationship (Rusbult et al., 2001). During organizational crises, publics' commitment to an organizational relationship impacts their subsequent behavior. More commitment to an organizational relationship translates to more constructive behavior and less hostile behavior from the publics towards an organization. Individuals' constructive relational behaviors in a crisis situation, simply put, are oriented upon good faith on restoring the relationship and solving the problem, compared to hostile relational behavior whose purpose is to exit and abandon the relationship, or even gloat on and exaggerate the other relational party's mistakes and wrongdoings.

Alternative quality, an original independent predictor in the investment model, however, becomes an unstable predictor of publics' commitment in the crisis context. Public relations scholars have called for attention on the role inter-organizational relationships in crises because organizations are interlinked and that a crisis can have spill-over effects on other organizations and the whole industry (Heath, 2013; Schultz & Raupp, 2010; Schultz, Utz, & Göritz, 2011). Alternative quality, which is based on comparison (Rusbult et al., 2001), positions an organization in the interlinked system of many similar organizations. Yet, results of the current investigation show that the effect of individuals' comparison of the focal organization to other similar organizations on how individuals engage in relational behaviors is inconclusive. This warrants further investigation, preferably through experimental studies that manipulate individuals' perception of a focal organization's alternative quality on how they react to an organization's crisis.

That being said, the significant role of commitment as a mediator in the model points to the importance of organizations maintaining positive relationships with the publics even before crises happen. Previous research has shown that publics' previous perception of an organization's reputation influences publics' attribution of responsibility (cf. Coombs, 2007). As an extension, this crisis relational maintenance model supports the benefits of maintaining positive relationships with key publics. Preparedness in crisis management has been a long-time weakness, both in research and in practice (Carmeli & Schaubroeck, 2008; Lee, Woeste, & Heath, 2007; Schwarz & Pforr, 2011). This study provides further support that preparedness through strengthening publics' commitment towards the relationship with the organization pay off in a crisis situation, where commitment can manifest into individuals' constructive relational behaviors.

4.2. Mediating role of trust in relationship maintenance in crises

Trust is an essential ingredient in healthy relationships and repairing trust is a priority when institutions and organizations lose their legitimacy (Bachmann et al., 2015). Trust is a relational construct because trust denotes "consensual validation between the parties", and trust needs to be restored through resolving discomfort and negativities (Ren & Gray, 2009, p. 105). As the relationship maintenance model of this study shows, trust mediates an organization's relationship maintenance strategies and individuals' relational behaviors. More specifically, post-crisis relationship maintenance strategies from an organization help to increase the likelihood of individuals' adopting constructive relational behaviors and decrease hostile behaviors through restoring individuals' trust towards the organization.

Restoring trust when it is damaged is an ongoing interest in public relations research (Hong & Rim, 2010; Moloney, 2005; Sisson, 2017). Restoration and recalibration are identified as two major approaches to repairing and improving trust (Stevens, MacDuffie, & Helper, 2015), where restoration is episodic following an exigency and recalibration is an ongoing incremental process to achieve optimum trust. A crisis situation creates an exigent collapse of trust (Williams & Olaniran, 1998) and requires immediate initiation of the restoration process. Relationship maintenance strategies help reorient both organizations and publics back into mutual

commitment and the relationships by restoring trust.

Crisis communication has focused on rhetorical strategies an organization can use to repair image and decrease the potential damage of a crisis on an organization's reputation. Such research focuses on individuals' attribution of responsibility as a primary factor that determines reputational damage (2012, Coombs & Holladay, 2002; Coombs, 2006). Just as responsibility attribution determines reputational outcomes, trust determines relational outcomes in crisis.

4.3. Publics' potential reciprocation in crises

Another important finding of this study is that interdependence dilemmas (crises) serve as diagnostic situations where a person decides what to do based on the other entity's reactions (Rempel et al., 1985). Organizational crises are situations where the well-being of publics becomes incompatible with the well-being of an organization. In other words, the legitimacy of an organization is questioned (Massey, 2001).

Results of the study support the tendency to reciprocate that is commonly seen in relationships, where one reciprocates the other's good will and efforts. Crises create interdependence challenges (Massey, 2001; Rusbult et al., 2001) and are diagnostic situations for publics to evaluate what an organization prioritizes, self-interests or relationships. Publics' responses correspond to ones of an organization. As the results of this study show, if an organization prioritizes relationships by actively engaging relationship maintenance strategies, publics respond with commitment to the relationship and increased constructive relational behavior. Simply put, an organization's good gestures are mirrored by publics' recommitment.

Theoretically speaking, crisis communication and management theories should focus more on reciprocation between an organization and its publics. Any relationships to certain degree reflect a social exchange process (Lee, 2001), where individuals engage in costs-benefits analysis to determine whether a relationship is worthwhile. An organization's engagement with relationship maintenance strategies serve as signals for the publics to gauge whether the organization at least tries to regain trust and improve the situation. If an organization invests sufficient resources and efforts oriented towards the well-being and long-term goals of the relationships, publics reciprocate in ways to similarly orient themselves towards the long-term well-being of the relationships, instead of completely distancing themselves from the organization. Reciprocation has not been adequately studied in crisis communication and management literature, and this study demonstrates that reciprocation can indeed manifest in crises. Practically speaking, practitioners can take the comfort of knowing that a difference can be made in a crisis if an organization truly cares about the relationships and directs its efforts accordingly.

An emerging literature has started to treat crises as opportunities for an organization or a community to grow and learn (e.g., Paquette, 2015; Seeger & Ulmer, 2002; Xu, 2018). The study adds to this perspective by investigating how an organization's relationship maintenance strategies facilitate the transformation process in interdependence dilemmas and help publics (re)orient to the long-term commitment of the relationship. Individuals' tendency to mirror the efforts from an organization is where opportunities arise to amend, maintain and even improve the relationships, and this tendency to reciprocate shows a promising path to further studying and theorizing the necessary conditions where crises can be transformed into potential opportunities.

It should be noted that these relationship maintenance strategies require more from an organization than showing good faith and saying the right things. In fact, even willingness to take responsibility does not directly translate into publics' trust. This on the one hand indirectly demonstrates that responsibility may only contribute to reputation-related outcomes. On the other hand, relationship maintenance strategies, an essential part of relationship maintenance mechanism (Rempel et al., 1985; Rusbult et al., 2001) to reorient relational parties back to the long-term goals of the relationship (Wieselquist, 2009), are one of great options for organizations to consider when managing a crisis.

5. Limitations and directions for future research

The proposed and tested relationship maintenance model in this study not only adds to the much-needed relationship perspectives in crisis communication and management, but also identifies relationship maintenance strategies that can be utilized by organizations to restore relationships with their constituencies and two significant mediators predicting individuals' relational behaviors towards an organization in a crisis.

Despite the contributions of this study, several limitations exist. First, the relational behaviors were self-reported and recalled. Individuals' ability to recall their past behaviors varies, and may not be accurate. To minimize the chance of false recalling, this study asked the participants to only recall an organization that went through a crisis in the past six months, and the participants were asked to spend time reflecting on what happened and his/her reactions during that time. As a result, the model may be best applied to during-the-crisis phase when organizations initialize strategies to put existing relationships in repair. Second, even though this study provides evidence that relationship maintenance strategies are able to encourage publics' constructive relational behavior towards the organization, this study did not investigate how crisis types may change such effects. Future research can unpack the role of organizational types in this model. Third, the study focuses on publics at large and is limited to provide insights on how relationship maintenance may work for a particular public (e.g., donors, consumers, and suppliers), but we hope the encouraging results from this study can lead to more studies that expand this framework by investigating the effectiveness of certain maintenance strategies for a particular public following a crisis situation. Last but not the least, MTurk samples are not nationally representative. To ensure data quality, MTurk workers were compensated based on the federal minimum wage for the estimated time to complete the survey. Multiple attention checks were issued throughout the survey. Yet, the sample is limited to generalize the study results into a broader population.

Based on these limitations, some directions for future research are proposed. Public relations scholars can continue to test the validity of this relationship maintenance model by investigating a variety of relationship maintenance strategies. A further expansion on the variety of relational behaviors publics may adopt can be also beneficial to predict publics' relational behaviors outside the continuum of being accommodative and hostile. Moreover, research exploring the potential moderating roles of crisis types can also provide meaningful practical and theoretical insights. Such investigations can further help the field of crisis communication and public relations to move towards a relational maintenance theory that acknowledges the relationship opportunities embedded in organizational crises.

In addition, future studies can utilize experimental methods to test the efficiency of individual relationship maintenance strategies in rebuilding relationships in a variety of crisis situations. Using experimental manipulation to single out the most efficient relationship maintenance strategies in different crisis situations can provide more concrete prescriptions for organizations that try to maintain and rebuild the relationships with the publics during and after a crisis. Last but not the least, given the inconclusive role of alternative quality in predicting individuals' commitment and their reactions, opportunities arise to use experimental methods to further explore and validate whether individuals' comparison of the focal organization to other similar organizations may influence their response to the organizational crisis.

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