Understanding Reputational Crisis: Definition, Properties, and Consequences

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To better understand the nature of reputational crisis, this study examined two crisis events using the corporate ability (CA) and corporate social responsibility (CSR) crisis categorization frameworks. This scenario-based experimental study validates the usefulness of the CA–CSR crisis categorization by demonstrating that not only do people actually discern differences between these two types of crises, but their awareness of a crisis type also influences their interpretation of the crisis, as well as their perceptions of and attitudes toward the target firm. In particular, this study shows that a CSR crisis, versus a CA crisis, is interpreted more seriously and, consequently, causes heavier damage to the evaluation of the firm. In addition, the halo effect of a favorable prior reputation was found in the CA crisis condition, but not in the CSR condition. Based on these findings, this study suggests that the recognition of CA and CSR crises provides a boundary condition, which determines divergent effects of crises on perceivers’ evaluation of the target firm.

From the practice front, a better understanding of the nature of crises surely will help crisis managers and communication practitioners develop effective strategies for dealing with unhappy events. Hence, it is no surprise that a considerable growth has been observed in the domain of research on crisis management and crisis communication both in quantity and quality (see Avery, Lariscy, Kim, & Hocke, 2010). Despite progress, there remain many puzzle pieces out of place. For instance, what elements of crises arouse cognitive, affective, and/or cognate responses? What consequences will be brought about by changes in the combination of these reactions? Why are some culprits of crises forgiven, whereas some are not?

Against this backdrop, this study undertakes an ambitious task of finding clues to solve some of those puzzles. In particular, this study focuses on reputational crisis, a special type of organizational crises. The term *reputational crisis* has long been used as a common-sense term, even in academic literature, without an agreed-upon definition, not to mention exploration of its nature. As Chaffee (1991) put it, the more clearly one specifies the meanings of concepts, the more knowledge one contributes to other researchers. In keeping with this tradition, presenting a
conceptual definition of reputational crisis is the first task. Explication of the nature of reputational crisis is achieved by introducing its two properties—that is, corporate ability (CA) crises and corporate social responsibility (CSR) crises, and exploring their attributes that will influence publics’ responses to crises through an experimental research design. The interpretations and implications of the findings are then followed.

CONCEPTUAL BACKGROUND

What is a Reputational Crisis?

By nature, a reputational crisis involves threat to reputations. Zyglidopoulos and Phillips (1999) stated that reputational crises take place when “widely publicized, highly-negative events lead important stakeholders to reevaluate their impressions” of an organization (p. 334). Threats to reputation often lead to financial loss through

- a decline in revenue as a result of a product boycott, asset value depletion from a brand collapse,
- resource diversion from fixing problems, increased cost of capital as a result of share premium erosion, exposure to predatory takeover, costlier compliance through regulatory intervention or even bankruptcy. (Larkin, 2003, p. 4)

However, just because a crisis incurs financial damage to an organization, it is not necessarily a reputational crisis. Natural disasters such as hurricanes, earthquakes and floods are critical events that are not likely to damage a firm’s reputation. Natural disasters are usually seen as large-scale community-based events generated by natural or technological agents (Quarantelli, 1988, p. 373), and are generally managed by community, government, or social groups (Kreps, 1984, p. 312). On the other hand, reputational crises are organizationally based and caused primarily by “human, communication, and technological failures” of organizations (Shrivastava, Mitroff, Miller, & Miglani, 1988, p. 289).

Likewise, reputational crises are distinguished from industrial disasters. The toxic waste poisoning case in Japan’s Minamata Bay; the leakage of toxic gas in Bhopal, India; and the Chernobyl nuclear disaster are examples of such industrial disasters. As their causes are mostly traced back to organizational operations, most industrial crises are ensued by reputational crises. Therefore, Booth (2000) labeled a reputational crisis as a “knock on crisis,” which arises in the aftermath of another crisis (p. 197). However, not all reputational crises are industrial disasters. White-collar crimes such as forgery, fraud, insider trading, and embezzlement are cases in point. Threat to reputation is then a required element to define reputational crisis—but not a satisfactory element.

Based on literature reviewed, this study defines reputational crisis as a major event that has the potential to threaten collective perceptions and estimations held by all relevant stakeholders of an organization and its relevant attributes. This definition has several key components that warrant further discussion.

First, a reputational crisis has a causal episode or triggering event that enables an organization to trace back to the source of the trouble. This specific causal event distinguishes a reputational crisis from a reputational problem. Whereas a reputational crisis can be explained as a
consequence of a specific critical incident, a reputational problem is more likely to be caused by an ongoing weakness or shortcoming, such as managerial inefficiency or failure to cultivate a strong and favorable name for the organization. Second, the threat brought about by a crisis is major. Lee (2005) asserted that a crisis is distinguished from a problem in its “magnitude and scope” (p. 277). In contrast, a problem is a “minor localized disruption” (Coombs, 1999, p. 3) and small in scope (Fishman, 1999, p. 347). Third, by emphasizing the word collective, this definition reflects a more comprehensive perception of stakeholder identity. Here, stakeholders are “any individuals or groups who may benefit from or be harmed by the actions of the organization” (Davies, Chun, da Silva, & Roper, 2003, p. 58). Each stakeholder group has diverse expectations, interests, goals, and stances, based on which aspects of an organization they see (Bromley, 1993; Carter & Deephouse, 1999; Dukerich & Carter, 2000). This notion implies that an event that is perceived as a reputational crisis to a stakeholder group may not be considered as a crisis to another stakeholder group.

In addition, the inclusion of organizational attributes in the proposed definition is particularly important for our study, as it allows the definition to reflect both aggregate and componential perspectives. Fischer and Reuber (2007) claimed that “an organization has a reputation for something, such as having high quality products, or being an aggressive price predator” (p. 57). Extending this notion, it can be hypothesized that a reputational crisis may not bring about damage equally to different aspects of reputation. For instance, some types of crises may cause damage to reputation based on quality product or service, whereas others may generate more harm for an ethical transgression. Embracing this notion of attributes then provides the basis for the next discourse: the dimensions of reputational crisis.

The Two Dimensions of Reputational Crisis

Research on reputation has pointed to complexity of the construct. For instance, Brown and Dacin (1997) proposed two types of corporate associations (i.e., what a person knows about a company)—corporate ability (CA), or “expertise in producing and delivering product and/or service offerings;” and corporate social responsibility (CSR), or the “character of the company, usually with regard to important societal issues” (p. 70). This two-dimensional system has been proposed by many other authors with different labels: for instance, economic performance and social responsibility (Etzioni, 1988), economic performance and social conduct (Chew, 1992), business competency and social conscience (Goldberg, 1999), organizational effectiveness and social performance (Riahi-Belkaoui & Pavlik, 1992), and business and social reputation (de Castro, Lopez, & Saez, 2006). Even though the labels differ slightly by authors, the core ideas do not differ in that one trait points to a company’s competence in delivering its products and services and the other trait reflects the expectation of a firm’s social obligations.

Extending Brown and Dacin’s (1997) notion of the two-dimensional system to the crisis communication field, this study suggests two types of reputational crisis: corporate ability (CA) crisis and corporate social responsibility (CSR) crisis. Our current study defines CA crisis as a critical event that adversely affects reputation associated with expertise of product and service, technological innovation, and industry leadership, and CSR crisis is conceptualized as a major event that poses a threat to reputation associated with norms and values cherished by society, and socially expected obligations. These social obligations may involve environmental friendliness,
commitment to diversity in employment, community involvement, and corporate philanthropic activities.

The CA-Versus-CSR Crisis Categorization as a Continuum

By definition, both a CA crisis and a CSR crisis are expected to challenge stakeholders’ perceptions about a firm’s ability to create economic values and their confidence in the firm’s morality or integrity, respectively. Even though it is assumable that individuals can recognize salient traits of crisis—i.e., a crisis requiring a change in their beliefs about ability or morality of a firm, and thereby categorize a crisis into either a CA or CSR crisis, it appears practically unlikely that there is a clear cut demarcation line between the CA or CSR crisis. Rather, the two crisis dimensions are better understood as being aligned in a continuum, where many factors should play to pull a crisis to one direction or the other.

To illustrate, suppose a firm is facing a product-harm crisis involving explosion of laptop computer batteries when they become overheated. Apparently, it will be categorized as a CA crisis involving failure of providing quality products. Later it is revealed that the firm knew about the product defect but did not take steps to fix the problem to save money. This piece of information would pull the stakeholders’ perception in the direction of the CSR-crisis end in the continuum. In another scenario, the laptop maker didn’t know about the problem at all and purchased the batteries from a third vendor. This time, the explosion of batteries was so devastating that a series of accidents killed several people. The seriousness of this situation then will likely push the crisis to the CSR-crisis end as more consumers get upset about the firm’s failure in meeting its social obligation to protect peoples’ lives.

Hearit (2005) also suggested some factors that potentially increase perceived level of guilt, which included a standard of morality or social norm, intentionality, repeated acts of wrongdoing, foreseeability (i.e., the degree to which they acted knowingly), and actuarial rarity (i.e., unusual or rare act of malfeasance). Intuitively, these factors are supposed to push the perceived crisis trait from the CA crisis to the CSR crisis end. Therefore, the first research question is posed as:

RQ1: What crisis factors will influence the CA-versus-CSR crisis categorization?

The Consequences of CA-Versus-CSR Crisis Categorization

Of ability and morality, identifying which value is more threatened by a crisis than the other is important because, as Kim, Ferrin, Cooper, and Dirks (2004) observed, research has demonstrated these dimensions provide schematic cues, with which individuals evaluate a variety of targets, as people tend to process inherently different assessment of positive versus negative information about ability and morality. That is, people have a tendency to weigh positive information about ability more heavily than negative information, resulting in a positivity bias; and weigh negative information about morality more heavily than positive information, hence generating a negativity bias (Kim, Dirks, Cooper, & Ferrin, 2006; Kim et al., 2004; Skowronska & Carlston, 1987; Wojciszke, 2005). The mechanism of the positivity and negativity biases are explained by cue-diagnosticity approach or hierarchical restrictive schemas. According to the perspective of hierarchically
restrictive schemas, people intuitively believe that those with high levels of ability are capable of exhibiting performance at many different levels, depending on their motivation and task demands, the ability that those with lower level of competence lack. Therefore, a single successful performance is viewed as indicative of ability because those who are incompetent are not expected to achieve the same level of success, whereas a single failure is deemed less informative because both competent and incompetent people can perform poorly in certain situations. In contrast, those with high integrity are expected to refrain themselves from immoral behaviors in any time, whereas those with low integrity may behave either morally good or bad depending on their incentives and opportunities. Hence, a single immoral behavior is considered to present a reliable signal of low integrity, and moral behaviors are less informative as both those with high and low integrity can behave morally good (Kim et al., 2004, p. 106).

The cue-diagnosticity approach provides similar explanations. With ability categories, positive information (success) appears more diagnostic of ability than negative information (failure), as a failure is attributable to many factors, including lack of motivation and fatigue. On the other hand, with morality categories, positive behaviors can be attributed to many factors, including conformity and ingratiation, making a piece of positive information less diagnostic. Such being the case, negative information is more indicative of morality (Skowronski & Carlston, 1987). Wojciszke (2005) demonstrated that a negativity bias is typical for situations where the information on target persons pertains solely or partially to morality-relevant traits, therefore negative information is more decisive than positive; the opposite will be true when the information is pertinent solely to ability-relevant traits, thereby yielding a positivity bias.

Applying the research findings about the schematic biases to the reputational crisis domain, it is hypothesized that stakeholders will take the crisis dimensions (i.e., CA vs. CSR crisis) as a cue and undergo a biased cognitive processing that selectively focuses on either positive or negative information and weigh one more than the other. As a result, a piece of negative information about a crisis may appear to be more serious than it actually is (i.e., a negativity bias) in a CSR crisis situation, whereas the negative information will be discounted, or even ignored, in a CA crisis situation (i.e., a positivity bias). Therefore, a hypothesis and research question are proposed:

H1: A CA crisis versus a CSR crisis will cause heavier damage to stakeholders’ evaluation of a firm facing the crisis.
RQ2: Will CA and CSR crises differ from each other in terms of the pace of reputation restoration over time?

Further extending the schematic approaches, it is assumable that the CA-versus-CSR categorization will interact with other information available at the moment of stakeholders’ evaluation of crisis information. For instance, it is more likely that individuals have prior beliefs about a firm involved in a crisis. If they have positive beliefs—i.e., a favorable prior reputation—of the firm, then the way of individuals’ assessing the conflicting information of crisis and prior reputation will vary contingent on the crisis type (i.e., CA or CSR crisis). That is, if a firm with a good name is confronted with a CA crisis, the negative information about a crisis may be discounted, compared to the situation where the firm possesses a less favorable prior reputation. In the CSR crisis, however, this shielding effect of prior good reputation is not expected. Therefore, based on literature reviewed, a hypothesis is presented:

H2: The CA-versus-CSR crisis categorization will interact with a favorable prior reputation in terms of stakeholders’ evaluation of a firm facing a crisis.
METHODS

Study Overview

This study utilized a 2 (CA vs. CSR crisis cues) × 2 (time point of exposure to crisis cues) mixed design. The experiments consisted of four sessions with a week of time lag between sessions. The time point of exposure to negative information of a crisis and positive information about the target firm’s reputation was manipulated in a way that participants read crisis news either at the first session (the negative-positive-positive-positive cue condition), or at the final session (the positive-positive-positive-negative cue condition), depending on their experimental membership. All participants were randomly assigned to each condition.

Participants and the stimulus product category. Research participants were recruited from a population of undergraduate students at a large public university. In a variant of snowball sampling, each participant was asked to recruit a friend. In addition to receiving extra course credits, incentives were provided by random drawings of 10 names from the participant pool, each of whom received $30. All human-subjects protocols were followed and IRB approval was obtained prior to data collection. Ages of the 383 participants who completed all sessions ranged from 18 to 35, with a mean age of 20.6 years (SD = 2.4). To prevent potential introduction of an error stemming from the wide range of ages of participants, the test for detecting outliers was conducted by calculating Mahalanobis distance ($D^2$) statistic. As the result, a total of 18 outliers (one participants aged over 25, and 17 participants aged under 24) with an excessive Mahalanobis $D^2$ value were deleted from the sample pool. Of the total 365 participants retained after deleting outliers, 269 (73.7%) were women and 90 (24.7%) were men. Gender of six participants was unverified. The majority of participants was White (83.8%), with a mix of African Americans (6%), Hispanics (1.1%), Asians (4.7%), and others (3.3%).

To strengthen the external validity of the study, the current experiments used online casual game business as the stimulus manipulation. According to Nielsen Television Index for the fourth quarter of 2006, two-thirds of all men aged from 18 to 34 played video games in their home, and about 60% of women in the same age range accessed video games (“The state of the console: Video game console usage,” 2007). In particular, in the online casual game business, the majority (63%) are female gamers (Tinney, 2005). Therefore, the gaming industry as the topic of manipulation has relevance to participants in the experiment.

Manipulations. For the experimental treatments, a fictitious online casual game developing company (GameNetworks, Inc.) was used. By using an imaginary company, potential compounding effect stemming from prior attitudes toward, and relationships with, the target objects were controlled. To increase believability of the manipulations, participants were instructed that all information was real and extracted from online news articles. Fombrun and Shanley (1990) claimed that publics use information about firms’ activities, which could come either directly from firms themselves or indirectly from media, and assess the firms’ successes or failures from their individual interpretations of the information. Therefore, it is assumed that respondents will use the treatments as a signal of reputations of the target firm of the experiment, thereby forming their own individual opinions and beliefs about the target.

For manipulation of crises, two crisis scenarios were developed. In the CA-crisis scenario, the Web site of the target firm was breached by hackers and individual information of game users
(including credit card information) was stolen. Also, the focal firm’s server system was disrupted twice due to system failure a month before the outbreak. In this story, the firm was described as a victim, implying the firm’s lack of malicious intentionality, thus restricting potential for negative attribution to the firm’s integrity. In the CSR-crisis scenario, the intentionality was manipulated in a way that the firm was accused of selling its customers’ private information without permission to other marketing companies. Sellnow and Ulmer (2004) contended that suspicion of an organization’s intentions behind an action threatens the perceived congruence between the values implied by the actions and accepted norms. To minimize inference of the firm’s performance based on its poor CSR status, the focal firm’s superior performance history was emphasized by using such phrases as a rising star and unprecedented growth.

For positive reputation, two types of leadership of the firm were manipulated. For the CA reputation, news stories covered business-wise recognition for the successful career path of the firm’s CEO, his outstanding entrepreneurship, leadership, and prize-winning history for managerial excellence. For the CSR reputation, news articles about the CEO’s philanthropic activities were presented. Utilizing reputation of leadership as the means of promoting corporate reputation has been justified by the notion that a CEO literally and symbolically becomes the organization itself to stakeholders (Bromley, 2001; Grunig, 1993; Pincus, Rayfield, & Cozzens, 1991). To avoid presentation order effect, participants were divided into three subgroups, to which different stories were randomly assigned. Because the influence of reputation type was minimal on outcome measures, the conditions of reputation types were combined to form positive firm information conditions.

All of the stories used for manipulation were written based on actual media reports, with a view to obtain ecological validity and increase believability of the stories. In addition, prior to the main test, a series of pilot tests were conducted with 58 undergraduate/graduate students, who were not part of the sampling pool for the main study. The pilot test results showed that the treatment stories were manipulated as intended; the between-condition differences were statistically significant and the within-condition differences were negligible.

**Experiment procedures.** All experiment sessions were conducted online. All instruments, including stimulus stories, were uploaded to the server with different links determined by the experimental design. All study sites were open only 3 days a week to control the flow of participation. After being randomly assigned, each participant received a private invitation e-mail, which contained the link to the study site. The instrument started with an instruction, which read:

The following information is about a real, well-known online game developing company. For the purposes of this study we call the company GameNetworks, and the company’s CEO Bob Glase. Your answers are completely confidential so be as frank as you wish. This is not a test—your opinion is the only right answer.

And from the second session, another paragraph, which was aimed to remind respondents of the previous story, was added, following the instruction. After reading treatment materials, participants responded to a set of questions. After completion of all experimental sessions, the participants were debriefed.

**Dependent Measures**

To explore potential factors that will influence the recognition and interpretations of CA or CSR crises, crisis factors including perceived crisis severity, responsibility, controllability,
and stability were measured. Respondents’ attribution of crisis severity was measured straightforwardly by providing a prompting statement (i.e., “In my opinion, this incident seriously harms consumers.”). Controllability was also measured by asking straightforwardly (i.e., “With regard to intention and power to control the situation, how likely do you think this company could have prevented this incident from occurring?”). The measures of crisis responsibility and crisis stability were developed by adopting Klein and Dawar’s (2004) study and was measured with three items and two items, respectively. Each item was measured on 7-point scale with 1 representing very strongly disagree and 7 being very strongly agree for the severity and responsibility measures; and 1 being not at all and 7 being very much likely for the severity and responsibility measures. Cronbach’s alpha for the responsibility scale ranged from .900 for the CA crisis condition and .956 for the CSR crisis condition; and for the stability scale, the reliability value was .717 for the CA crisis condition and .720 for the CSR crisis condition. All measures are presented in the Appendix.

A reputational crisis can bring about potentially devastating consequences not only to corporate reputation, but also to mutually favorable organization-stakeholder relationships (Heath & Millar, 2004). Literature on relationships also suggests that stakeholders in a quality relationship with a firm will show “extra-role behaviors,” which involve world-of-mouth, product improvement suggestions, recruitment of other public members, and proactive communication of anticipated problems (Ahearne, Bhattacharya, & Gruen, 2005, p. 577). And a latent construct that drives these extra-role behaviors is loyalty (Sohn, 2009, p. 22). Therefore, participants’ responses to treatment materials were tapped by reputation and relationship measures, as well as loyalty.

The variable of overall attitudes about the firm was adopted from two emotional dimension items of reputation quotient (RQ), developed by Fombrun, Gardberg, and Sever (2000), and measured on a 7-point Likert-type scale with 1 being very strongly disagree and 7 being very strongly agree. Cronbach’s alpha for this scale, which was tested separately for each experimental condition with a view to check the reliability, ranged from .917 to .923. The relationships measures—satisfaction, trust, and commitment—were adopted from Hon and Grunig’s (1999) organization–public relationships measures. Trust is conceptualized as “one party’s level of confidence in and willingness to open oneself to the other party;” satisfaction is defined as “the extent to which one party feels favorably toward the other because positive expectations about the relationships are reinforced,” and commitment as “extent to which one party believes and feels that the relationship is worth spending energy to maintain and promote” (Hon & Grunig, 1999, pp. 19–20). Participants’ overall attitudes about the firm were measured with two items. All outcome measures were quantified on 7-point Likert-type scales with 1 being very strongly disagree and 7 being very strongly agree. Several items were flipped in scale before being collapsed into each of the outcome variables, therefore rearranging the scales created from 1 (unfavorable) to 7 (favorable). Cronbach’s alpha ranged from .816 to .760 for satisfaction; from .869 to .769 for trust; from .891 to .919 for commitment; and from .917 to .923 for attitudes to firm. For loyalty, which is defined “a feeling of attachment to or affection for a company’s people, products, or services” (Jones & Sasser, 1995, p. 94), a scale was created by adopting from DeRuyter, Wetzels and Bloemer’s (1998) scale. Four items were used and each of them was quantified on a 7-point bipolar scale, ranging from 1 (unfavorable) to 7 (favorable). Cronbach’s alpha for the scale ranged from .917 to .925. All measures are presented in the Appendix.
Manipulation and Random Assignment Check

To determine whether the manipulations were successfully done, scales to measure CA and CSR corporate reputation were developed by adopting Fombrun et al.’s (2000) RQ. All items were quantified on a 7-point Likert-type scale with 1 being very strongly disagree and 7 being very strongly agree. Cronbach’s alpha for CA reputation ranged from .843 to .886; and from .907 to .908 for CSR reputation. The items are available in the Appendix.

For the manipulation check, a series of tests were run using SPSS v. 18. For the tests, 159 subjects who were exposed only to positive reputational information were used. The mean comparison between CA and CSR reputation conditions showed that, as the manipulations intended, the CA-reputation group yielded a higher evaluation for the firm’s CA reputation ($n = 76, M = 5.0, SD = .85$), compared to the CSR-reputation group ($n = 83, M = 4.5, SD = .68$), and this between-group difference was significant at the .01 level, $t(157) = 4.236$, $p = .000$. The mean for the CSR-reputation condition was also higher ($n = 81, M = 4.7, SD = .87$) than for the CA-reputation condition ($n = 76, M = 4.3, SD = .71$), the test result being significant at the .01 level, $t(155) = 2.959$, $p = .004$. When comparing to the neutral point on the scale ($M = 4.0$) by using one-sample $t$-test, the mean of the CA-reputation group ($M = 5.0$) was significantly higher, $t(75) = 10.034$, $p = .000$; and the mean of the CSR-reputation condition ($M = 4.7$) was also higher, $t(80) = 7.218$, $p = .000$. To inspect the crisis manipulations, 197 subjects who were exposed only to the negative crisis information were used. The independent $t$-test showed that the CA crisis condition had a lower CA reputation score ($n = 99, M = 3.66, SD = 1.048$), compared to the CSR reputation score ($n = 98, M = 3.79, SD = .781$), and the CSR crisis condition caused more damage to the CSR reputation ($n = 99, M = 3.07, SD = .895$) than to the CA reputation ($n = 94, M = 4.01, SD = 1.025$). These differences were statistically significant at the .05 level, $t(191) = -2.347$, $p = .020$ for CA reputation; $t(195) = 5.956$, $p = .000$ for CSR reputation.

The tests of random assignment were conducted by comparing mean differences between the experimental groups that belong to the same type of manipulation cluster. A series of ANOVA tests were run and none of the tests were statistically significant, suggesting successful accomplishment of random assignments.

RESULTS

For the tests for hypotheses and research questions proposed, SPSS v.18 was used. Before the main tests, the tests of univariate normality were run on all variables, separately for each experimental condition. Kline (2005) recommended values less than $|3.0|$ for skewness and $|8.0|$ for kurtosis (p. 50). The test results showed that the data at hand were normally distributed with skewness ranging from $-0.03$ to $.83$ and kurtosis ranging from $-1.70$ to $3.10$. In addition, there was no reason to suspect the violation of the assumption that the error components are distributed within each treatment population independently of each other.

To test RQ1, only the NPPP (negative [crisis news]-positive [reputation information]-positive-positive in time order) condition, 194 subjects (after listwise-deleting missing responses), were used. For the analysis, a logistic regression technique was utilized based on outcome measures taken immediately after exposure to crisis news (i.e., the first time point). The result showed that only crisis responsibility and severity significantly contributed to the
CA-versus-CSR categorization. The final model, which retained only crisis responsibility and severity, was statistically significant at the .01 level, $\chi^2(2) = 36.577$, $p = .000$. The Nagelkerke pseudo $R^2$ indicated that the model accounted for 22.9% of total variance. The model showed that a one-unit increase on the crisis responsibility score will increase the odds of being perceived as a CSR crisis, instead of a CA crisis, by 2.4 times, controlling for crisis severity, and one-unit gain on crisis severity will raise the odds by .51 times, controlling for responsibility. Table 1 presents the summary of the test.

For the test of H1, the NPPP condition was again used. A series of ANCOVA tests were conducted with the variable of perceived crisis severity serving as a covariate to contain any potential confounding effect stemming from the difference of message strength between CA and CSR treatments. The test results indicated that the CA-versus-CSR crisis categorization had significant main effects on attitudes to firm; $F(1, 190) = 10.324$, $p = .002$, effect size $\eta^2_p = .052$; and trust; $F(1, 190) = 25.876$, $p = .000$, effect size $\eta^2_p = .120$. On both outcome measures, the adjusted means for the CA crisis group were higher than those for the CSR crisis group, indicating that the CSR crisis caused greater damage to participants’ evaluation of the target firm, compared to the CA crisis. The crisis categorization, however, did not see a significant difference on satisfaction, commitment, and loyalty. The estimated means after controlling for the covariate are presented in Table 2. Therefore, H1 was partially supported.

For the test of RQ2, the NPPP condition was used. To track the growth pattern of responses over time, while comparing the mean differences between CA and CSR crisis conditions, the repeated measures method was employed. With a view to control a difference in message strength between the two experimental groups, perceived crisis severity was controlled. The result showed no interaction effects between the crisis categorization and time. The between-group tests indicated that the CA-versus-CSR crisis categorization had significant main effects only on attitudes toward firm, $F(1, 181) = 11.432$, $p = .001$, effect size $\eta^2_p = .059$ for attitudes to firm; and $F(1, 181) = 15.409$, $p = .000$, effect size $\eta^2_p = .078$ for trust. The time variable yielded significant main effects on all outcome measures, $F(1, 181) = 11.432$, $p = .001$, effect size $\eta^2_p = .059$ for attitudes to firm; $F(1, 181) = 15.409$, $p = .000$, effect size $\eta^2_p = .078$ for satisfaction; $F(1, 181) = 15.409$, $p = .000$, effect size $\eta^2_p = .078$ for trust; $F(1, 181) = 15.409$, $p = .000$, effect size $\eta^2_p = .078$ for commitment; and $F(1, 181) = 15.409$, $p = .000$, effect size $\eta^2_p = .078$ for loyalty. Therefore, the test of RQ2 did not confirm the interaction between the crisis categorization and long-term effect of reputation. However, the result did show a significant long-term effect of reputation effects. The descriptive summary is presented in Table 3.

Examining the mean differences between each time point showed that the differences between adjacent time points (i.e., P1-P2 or P2-P3) were significant only on attitude to firm.
for the P1-P2 comparison (adjusted mean difference $[MD] = .19 \ [SE = .07], p = .009$), and commitment and loyalty for the P2-P3 comparison (adjusted $MD = .12 \ [SE = .057], p = .035$ for commitment; and adjusted $MD = .19 \ [SE = .05], p = .000$ for loyalty). However, the P1-P3 comparisons indicated that all outcome measures significantly increased over time (adjusted $MD = .29 \ [SE = .08], p = .000$ for attitudes to firm; adjusted $MD = .13 \ [SE = .06], p = .036$ for satisfaction; adjusted $MD = .16 \ [SE = .059], p = .008$ for trust; adjusted $MD = .19$

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SE = 0.067, p = 0.007 for commitment; and adjusted MD = 0.32 [SE = 0.067, p = 0.000 for loyalty]. The test results are summarized in Table 4.

To test H2, both of the NPPP and PPPN conditions were used. Because the outcome variables were measured at the point of exposure to crisis news (i.e., the N-time point), the PPPN condition is deemed to represent the experimental group that has a favorable prior reputation, whereas the NPPP condition serves as a control group. The 2 (CA vs. CSR crisis category) × 2 (prior reputation vs. no reputation) factorial analysis was conducted with the variable of perceived crisis severity as a covariate to control for the message strengths between the CA and CSR crisis news treatments. The test results indicated the significant interaction effects between the crisis type and prior reputation on the outcome measures of attitude, $F(1, 357) = 5.318, p = 0.022$, effect size $g^2_p = 0.015$; satisfaction, $F(1, 357) = 4.735, p = 0.030$, effect size $g^2_p = 0.013$; and loyalty, $F(1, 356) = 4.814, p = 0.029$, effect size $g^2_p = 0.013$, at the .05 level. For those variables that had significant interaction effects, further analyses were conducted by splitting cells.

When splitting experimental conditions by reputation effect (i.e., prior reputation vs. no reputation), the mean score of attitudes toward the firm for the CA crisis group ($M_{CA}$) was higher than that for the CSR crisis group ($M_{CSR}$) in both prior-reputation, $F(1, 161) = 49.253, p = 0.000$, effect size $g^2_p = 0.234$; and no-reputation conditions, $F(1, 195) = 12.180, p = 0.000$, effect size $g^2_p = 0.059$. But considering the effect size, the difference between CA and CSR crisis groups was stronger in the prior-reputation condition than in the no-reputation condition. On the satisfaction and loyalty measures, the difference between $M_{CA}$ and $M_{CSR}$ was not significant in the no-reputation condition, but $M_{CA}$ was significantly higher than $M_{CSR}$ in the prior-reputation condition, $F(1, 161) = 13.253, p = 0.000$, effect size $g^2_p = 0.039$ for satisfaction; and $F(1, 161) = 11.544, p = 0.001$, effect size $g^2_p = 0.061$ for loyalty. When splitting cells by crisis type (i.e., CA vs. CSR crisis), on both satisfaction and loyalty the mean scores for the prior-reputation group ($M_{PN}$) were significantly higher than those for the no-reputation group ($M_N$) only in the CA crisis condition at the .01 level, $F(1, 177) = 7.112, p = 0.008$, effect size $g^2_p = 0.039$ for satisfaction; and $F(1, 177) = 11.544, p = 0.001$, effect size $g^2_p = 0.061$ for loyalty; whereas no significant difference was detected in the CSR crisis condition. Therefore, H2 was partially supported.

The main effect of crisis type was significant at the .01 level on the variable of trust, where $M_{CA}$ was significantly higher than $M_{CSR}$, $F(1, 355) = 91.611, p = 0.000$, effect size $g^2_p = 0.205$; but no significant main effect of prior reputation was found. On the commitment measure, only the

| TABLE 4 |
| Test Results for Comparison Between Time Points of Measure |

<table>
<thead>
<tr>
<th></th>
<th>N–P1</th>
<th>P1–P2</th>
<th>P2–P3</th>
<th>P1–P3</th>
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<tbody>
<tr>
<td>Attitude to company</td>
<td>Sig.**</td>
<td>Sig.**</td>
<td>—</td>
<td>Sig.**</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Sig.**</td>
<td>—</td>
<td>—</td>
<td>Sig.*</td>
</tr>
<tr>
<td>Trust</td>
<td>Sig.**</td>
<td>—</td>
<td>—</td>
<td>Sig.**</td>
</tr>
<tr>
<td>Commitment</td>
<td>Sig.**</td>
<td>—</td>
<td>Sig.*</td>
<td>Sig.*</td>
</tr>
<tr>
<td>Loyalty</td>
<td>Sig.**</td>
<td>—</td>
<td>Sig.**</td>
<td>Sig.**</td>
</tr>
</tbody>
</table>

Note. N = Negative (crisis) information. P = Positive (reputation) information. NP1P2P3 = Negative-Positive-Positive-Positive time order.
*Significant at the .05 level.
**Significant at the .01 level.
The main effect of prior reputation was statistically significant at the .01 level in such a way that $MPN$ was significantly higher than $MN$, $F(1, 356) = 9.842, p = .002$, effect size $\eta^2_p = .027$, but no main effect of crisis was significant. Tables 5 and 6 present the descriptive and test summary respectively.

**DISCUSSION**

The tests for hypotheses and research questions, as expected, showed that the framework of the two-dimensional system of reputational crisis (i.e., CA crisis and CSR crisis) provides a useful

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Crisis type</th>
<th>Prior reputation</th>
<th>No reputation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$n$</td>
<td>$M^a$</td>
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<tr>
<td>Attitude to company</td>
<td>CA</td>
<td>82</td>
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</tr>
<tr>
<td></td>
<td>CSR</td>
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<td>2.6</td>
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<td></td>
<td>Total</td>
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<td>3.1</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>CA</td>
<td>82</td>
<td>3.7</td>
</tr>
<tr>
<td></td>
<td>CSR</td>
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<td>3.2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>164</td>
<td>3.5</td>
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<tr>
<td>Trust</td>
<td>CA</td>
<td>80</td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td>CSR</td>
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<td>2.9</td>
</tr>
<tr>
<td></td>
<td>Total</td>
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<tr>
<td>Commitment</td>
<td>CA</td>
<td>81</td>
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<td>CSR</td>
<td>82</td>
<td>2.7</td>
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<td></td>
<td>Total</td>
<td>163</td>
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<tr>
<td>Loyalty</td>
<td>CA</td>
<td>82</td>
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<tr>
<td></td>
<td>CSR</td>
<td>82</td>
<td>2.7</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>164</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**TABLE 5**

Descriptive Summary of Crisis Type-Prior Reputation Factorial Analysis

**Note.** CA = Corporate Ability. CSR = Corporate Social Responsibilities.

*The mean scores reflect adjusted after controlling over perceived crisis severity.*

<table>
<thead>
<tr>
<th>Interaction</th>
<th>Crisis effect</th>
<th>Reputation effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude to company</td>
<td>Sig.*</td>
<td>Sig.*+ ($M_{CA} &gt; M_{CSR}$)</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Sig.*</td>
<td>Sig.*+ ($M_{CA} &gt; M_{CSR}$ in PN)</td>
</tr>
<tr>
<td>Trust</td>
<td>—</td>
<td>Sig.*+ ($M_{CA} &gt; M_{CSR}$)</td>
</tr>
<tr>
<td>Commitment</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Loyalty</td>
<td>Sig.*</td>
<td>Sig.*+ ($M_{CA} &gt; M_{CSR}$ in PN)</td>
</tr>
</tbody>
</table>

**Note.** $M =$group mean. $N =$Negative (crisis) information. $P =$Positive (reputation) information. $PN =$Positive-Negative time order (reputation group). $N =$Negative only (control group).

*Significant at the .05 level.

**Significant at the .01 level.**
tool that leads one to observe crisis phenomena from a different angle and presents insights into stakeholders’ reactions to crises. The test results demonstrated that people not only discerned differences between the two types of crises, but also their awareness of a crisis type influenced their interpretation of the crisis. In fact, the existing crisis theories have successfully searched for crisis elements that influence publics’ interpretations of a crisis. Especially Coombs’ (2007) situational crisis communication theory identified perceived control, crisis responsibility, severity, history and organizational reputation as such key crisis factors. Our study’s findings suggest that even these crisis factors may be perceived with varying degrees, depending on whether the crisis is categorized as a CA or CSR.

According to the findings, only responsibility and severity were significantly associated with the CA-CSR categorization. In particular, it is interesting that the CSR crisis was perceived more seriously than the CA crisis. In both CA and CSR crisis scenarios, the damages to victims (i.e., the users of the online game company) were not different—i.e., the leak of their valuable private information including credit card information. This finding empirically validates Coombs’ (2002) assertion that the level of crisis severity increases if a company violates a “standard of culture or social norm” (p. 341).

The significant effect of crisis responsibility, however, needs some caution, as it could be viewed as a treatment effect as intentionality of the target firm was manipulated for the CSR crisis scenario, and external locus of control was set up for the CA crisis story in this study. Lee’s (2004) study demonstrated the significant correlation between internal cause and perceived crisis responsibility. The question becomes why was controllability (which was also manipulated and is deemed correlated with intentionality; Klein & Dawar, 2004) not a significant predictor of the CA-CSR categorization? Doesn’t it imply that the responsibility factor had a true effect in the recognition of the crisis category? Further examination should be made to find a true relationship between crisis responsibility and the crisis categorization.

Meanwhile, this study provides evidence that the CA-CSR frame also influences individuals’ perceptions of and attitudes toward the company entangled in a crisis. In particular, this study highlights the importance of investing more resources in preventing a CSR crisis than a CA crisis, as the test result indicated that the CSR crisis condition caused heavier damage to the firm on the variables of overall attitude and trust. Furthermore, these variables saw a slower recovery trend over time in the CSR crisis condition than in the CA condition. The variable of overall attitude, which was tapped by statements of “having a good feeling” and “admiring and respecting,” was originally adopted from the RQ’s emotional dimension. Considering this variable is associated with stakeholders’ affective responses, this finding confirms the observation of Weiner, Amirkhan, Folkes and Verette (1987), who stated that, compared to external/uncontrollable attribution, internal/controllable attributions arouse more aversive emotional reactions, thus increasing more negative evaluations. The heavy influence of a CSR crisis on trust is also noteworthy. The relationship between CSR activities and stakeholders’ trust has long been speculated (e.g., Moorman, Deshpandé, & Zaltman, 1993; Morgan & Hunt, 1994). By demonstrating the severe impact of a CSR crisis on trust, this study provides empirical evidence of the link between CSR activities and trust.

On the other hand, the CA and CSR crises did not significantly differ on the satisfaction, commitment, and loyalty measures. This result resonates Brown and Dacin’s (1997) study, which showed that the CSR reputation cue did not have a significant effect on the participants’ responses when their task was pertinent to product evaluation. In contrast, when the task was not
relevant to the evaluation of a product, CSR cues had a significant influence on participants’ evaluation of the target firm. The variables of satisfaction, commitment, and loyalty are considered the key antecedents of purchase decisions (e.g., Ahluwalia, Burnkrant, & Unnava, 2000; Taylor & Baker, 1994), whereas overall attitude and trust are pertinent to perception or evaluation of the company. However, considering Brown and Dacin’s (1997) finding, which indicated that the CSR reputation also had influence on purchase intention indirectly through its impact on overall evaluation of the target firm, there is enough reason for practitioners to be alerted by the heavy impact of a CSR crisis demonstrated in this study.

Another intriguing finding of this study is the buffering effect of prior reputation. This finding is not different from the existing studies on the so-called halo effect of positive reputation (e.g., Coombs & Holladay, 1996, 2006; Dawar & Pillutla, 2000b; Payne, 2006). The unique part of this study’s finding is the fact that the halo effect of reputation was significant only in the CA crisis condition, but not in the CSR crisis domain. This result was expected by both cue-diagnosticity and hierarchical restrictive schemas approaches. As these perspectives predict, a firm’s single failure to perform well will likely be discounted as less indicative, whereas a single wrongdoing that calls integrity or morality into question may serve as evidence that shows the true face of the firm, which might have been managed well and thus hidden until the crisis unveiled it. This finding again demonstrates the usefulness of analyzing a crisis situation with the frame of the CA-CSR categorization, which provides a boundary condition when a good prior reputation works and when it does not.

Finally, this study offers encouraging evidence that long-term efforts of reputation management do pay off. The finding showed that the influence of positive postcrisis information on participants’ perceptions had a minimal improvement when comparing adjacent weeks. But when comparing the responses measured after the first postcrisis session with the third session, the improvement was significant on all outcome measures. This result implies that, even though the effort of postcrisis reputation management may be less noticeable in the short term, constant efforts will eventually help the company recover from the aftermath of a crisis in the long term.

**Implications**

The CA-CSR crisis categorization adds valuable insight into the CSR literature, as the findings imply that a CSR crisis may have a greater impact on corporate evaluation than a CA crisis. Given scarce corporate resources in terms of time, money, and human resources, investment into CSR activities has remained a controversial issue. This controversy is well represented in the argument that “instead of investing in a good CSR record, the resources may be needed for sustaining and developing the abilities the company needs to compete in the market and to deliver the appropriate quality” (Berens, van Riel, & van Rekom, 2007, p. 234). Moreover, this controversy has been intensified by the mixed results of studies on the influence of CSR investment on the bottom line (Halme & Laurila, 2009). This being the case, our study adds justification to why organizational resources should be invested in managing CSR reputation and protecting it.

This study’s findings also have significant implications for crisis managers as they point to the importance of understanding the nature and properties of reputational crisis. That is, recognizing which aspect of reputation (i.e., reputation associated with ability or integrity) is more damaged by a crisis will lead to effective management decisions about where resource
investment should be focused to restore the tarnished reputation. As such, this insight will surely help practitioners predict the potential consequences of reputational crises with increased precision, therefore leading to more effective crisis communication activities.

The CA-CSR categorization also provides a good guide for the rhetorical postcrisis responses. This study’s findings confirmed the notion that negative information of a CSR crisis may yield a negativity bias, therefore producing more serious effect than a CA crisis, whereas negative information may be discounted by positive information in the CA crisis context as shown in the existence of halo effect only in the CA-crisis condition. Related to this notion, for instance, Kim et al.’s (2004) study empirically demonstrated that responses were more effective in changing individuals’ perceptions about the target object, when the apology strategy was adopted for a competence-related crisis, and the denial strategy was used for violations of integrity.

**Future Agenda and Conclusion**

In crisis literature, empirical studies have yielded mixed results, as some studies have found significant differences among crisis response options (e.g., Coombs & Holladay, 1996; Dean, 2004), whereas others have found no significant differences (e.g., Bradford & Garrett, 1995; Coombs & Holladay, 2008; Coombs & Schmidt, 2000); or some found significant halo-effect from positive prior reputation (e.g., Ahluwalia et al., 2000; Coombs & Holladay, 2006; Dawar & Pillutla, 2000a; Grunwald & Hempelmann, 2011; Siomkos & Kurzbard, 1994; Siomkos & Shrivastava, 1993), other studies pointed to the opposite direction (e.g., Dean, 2004; Grunwald & Hempelmann, 2011; Lyon & Cameron, 2004; Rhee & Haunschild, 2006), and so on. Amidst this turmoil, this study contributes to the crisis literature by providing empirical validation of the CA-CSR crisis categorization and further demonstrating the value of this classification as a boundary condition, which reconciles conflicting research findings in crisis literature.

Despite this valuable contribution, some issues remain unresolved, which should be tackled in future research. First, to identify factors that may influence the CA-CSR crisis categorization, this study explored the crisis factors that are supposed to influence the interpretation of a crisis, and found the significant effect of crisis responsibility and severity. However, it still remains ambiguous whether the effect of responsibility was the result of treatment, or the reflection of true effect. Further studies with refined manipulations should answer this question. Furthermore, exploring other variables that will be associated with the recognition of CA and CSR will form a promising research avenue. For instance, the type of industry to which the target firm belongs, types of victims and damages (tangible or intangible), and other environmental cues, as well as organizations’ postcrisis responses will make good candidates for the variables that will influence the crisis categorization. In addition, type of reputation (CA vs. CSR reputation) didn’t play a role in this study due to its minimal effects on outcome measures. Further empirical studies with varied manipulative scenarios are needed to find whether there is no interaction between the types of reputation and crisis. Finally, the ages of the study’s participants skewed to early 20s may have had influence on the test results. Further studies of different age groups will enhance generalizability of this study’s findings.

In conclusion, this study joins a force in the movement of crisis communication research that has been moving beyond case studies toward experiments that systematically assess the effect of a crisis and its responses (Coombs & Holladay, 2008). With useful empirical findings about the
perceptions of crises and their consequences, this study certainly contributes to the movement that is refining crisis research based on empirical evidence. Nevertheless, no single experimental study is perfect. For a better understanding of the intriguing issues that this study proposed pertinent to crisis phenomena, more experimental studies should be followed by varying variables used in this study or introducing new ones.

REFERENCES


**APPENDIX: MEASURES OF OUTCOME VARIABLES**

**Crisis factor measures**

**Crisis severity**

1. "In my opinion, this incident seriously harms consumers."

**Controllability**

1. "With regard to intention and power to control the situation, how likely do you think this company could have prevented this incident from occurring?"

**Crisis responsibility**

1. "In my opinion, this company is responsible for this incident."
2. "In my opinion, this company should be held accountable for this incident."
3. "In my opinion, this incident is the fault of this company."
Crisis stability

1. ‘‘How likely is it that this type of incident will occur again in the future with this company?’’
2. ‘‘How likely is it that this company has had problems with its products/services in the past?’’

Reputation measures

CA reputation

1. ‘‘This company would offer high quality products and services.’’
2. ‘‘This company would develop innovative products and services.’’
3. ‘‘This company seems competent and effective in providing its products and services.’’

CSR reputation

1. ‘‘This company would support good causes.’’
2. ‘‘This company would be an environmentally responsible company.’’
3. ‘‘This company would be honest.’’
4. ‘‘This company would be sincere and genuine.’’
5. ‘‘This company would behave ethically.’’

Overall attitudes to company

1. ‘‘I have a good feeling about this company.’’
2. ‘‘I admire and respect this company.’’

Relationships measures

Satisfaction

1. ‘‘My experience with this company would be excellent.’’
2. ‘‘Most consumers like me would be unhappy in their interactions with this company.’’
3. ‘‘Both this company and consumers like me would benefit from the relationship.’’
4. ‘‘I would feel that this company fails to satisfy the needs of consumers like me.’’

Trust

1. ‘‘I would feel that this company treats consumers like me fairly and justly.’’
2. ‘‘This company cannot be relied on to keep its promises to consumers like me.’’
3. ‘‘I would feel that sound principle guide this company’s behavior.’’
4. ‘‘I would feel that this company misleads consumers like me.’’

Commitment

1. ‘‘I would feel a strong sense of belonging to this company.’’
2. ‘‘I would feel emotionally attached to this company.’’
3. ‘‘My relationship with this company would be important to me.’’
4. ‘‘If this company no longer exists, this would be a significant loss for me.’’
5. ‘‘I would feel a strong sense of identification with this company.’’
Loyalty measures

1. “I would definitely recommend this company to someone who seeks my advice.”
2. “I will consider this company my first choice to buy the products/services I need.”
3. “I will intend to do more business with this company in the next few years.”
4. “I would continue to do business with this company even if its prices increased somewhat.”