

Corporate Crises in China: Publics' Institutional Associations of Government Ability and Social Responsibility

This study newly conceptualizes publics' institutional associations of government ability and social responsibility associations as unique characteristics of China in times of corporate crisis. By implementing a national survey in China, the study empirically tests how government associations are affected by publics' perceptions of a crisis and a crisis-involved company. By integrating publics' corporate and government associations into the situational factors of publics, this study further depicts a comprehensive post-crisis socio-psychological mechanism of publics. The findings of this study shed light on how the problem, constraint, involvement recognitions of publics influence their active communicative action, and in turn, affect post-crisis corporate associations and government associations.

Keywords: corporate associations, institutional associations, government associations, government ability associations, government responsibility associations, communicative action, situational theory

In times of corporate crisis, consumer publics (publics hereafter) are prominent stakeholders. Indeed, how publics react to a particular crisis—ranging from minor annoyance to protests or boycotts—is likely to disrupt an organization’s normal business operations and challenge its legitimacy (Fediuk, Coombs, & Botero, 2010). It is important to understand how publics perceive and respond to crises such as the underlying socio-psychological dynamics of publics in crisis. Prior research has underscored the importance of publics’ corporate associations (i.e., psychological associations toward a company) in a crisis either as an antecedent (i.e., pre-existing corporate associations) to mitigate reputational damages inflicted by a crisis (e.g., Dawar & Pillutla, 2000; Dean, 2004; Kim, 2013, 2014) or as a consequence (i.e., post-crisis corporate associations) of publics’ post-crisis evaluations of a crisis-involvement company (e.g., Coombs & Holladay, 2009; Lee, 2004). However, existing crisis communication studies largely neglect the vital roles that publics’ psychological associations toward social institutions such as government—conceptualized in this study as institutional associations—play during and after a crisis. According to Knight (1992), social institutions consist in part of a set of underlying rules shared by the members of a community, and thereby structure social interactions in particular ways.

Given China’s socialist market economy and 2,000-year tradition of administrative bureaucracy, the Chinese government possesses both political and cultural legitimacy as a leader and controller of corporations (Wu, 2007). Chinese firms tend then to regard the government as their protector as well as the most dominant influencer among various other stakeholders. Consequently, Chinese firms ignore to a certain extent other prominent publics, such as consumers in crisis. Meanwhile, consumers tend to form negative associations about a company involved in a crisis due to its neglect of consumer concerns in the crisis. When consumers feel this way about a company in

China, they extend the negative associations to include the government given its parental role with corporations. Following a corporate crisis, Chinese publics tend to assess how well the company and the government managed it and to then re-evaluate government ability (GA) and governmental social responsibility (GSR). GA and GSR are two dimensions of institutional associations this study conceptualizes. GA refers to the government's overall ability and capacity to regulate corporations to secure efficient business operations in society. GSR refers to the government's responsibility to society to support social issues such as human rights, environmental protection, public welfare regarding education and health, and so forth. This study thus attempts to uncover how publics' post-crisis corporate associations are related to post-crisis government associations (i.e., institutional associations) in the process of publics' responses to crisis in China.

In addition, this study integrates into post-crisis corporate and institutional associations the situational theory of publics (Grunig & Repper, 1992; Kim & Grunig, 2011), such as problem, constraint, and involvement recognitions and active communicative action. It explores how situational factors of publics affect their communicative actions during a crisis and in turn influence their post-crisis corporate and government associations. In carrying out such an explanation, this study delineates a comprehensive socio-psychological mechanism of Chinese publics in corporate crises. This study answers previous calls for more culturally and contextually sensitive perspectives in crisis communication research (Avery, Lariscy, Kim, & Hocke, 2010) through conceptualizing institutional associations in the Chinese context and examining the socio-psychological mechanism of publics in times of corporate crisis.

Literature Review

Corporate Associations

The extant literature in crisis communication research substantially identifies the importance of corporate associations in crisis and suggests how publics' psychological associations influence or are influenced by corporate responses to crisis. "Corporate associations are defined as publics' memory-based psychological associations and evaluations toward a firm" (Kim, 2014, p. 159), which comprise corporate ability (CA) and corporate social responsibility (CSR) associations (Biehal & Sheinin, 2007; Kim, 2013, 2014). CA association refers to publics' associations with a corporation regarding its capacity and "expertise to produce high-quality products or services" (Kim, 2014, p. 159), whereas CSR association is highly related to the virtue of a firm and corresponding socially responsible corporate behaviors (Brown & Dacin, 1997; Kim, 2011).

Previous research demonstrates that pre-crisis CA and CSR associations have strong halo effects on public responses to corporate crises (i.e., Kim, 2013). Such findings highlighted the notion that prior positive corporate associations could mitigate the negative impacts imposed by a crisis (Dawar & Pillutla, 2000; Kim, 2014). These studies have built the theoretical linkage between pre-crisis reputation and post-crisis management. These studies have thus emphasized pre-crisis corporate associations, regarding them as an antecedent and possessing the halo (or transferring) effects on publics' attribution of crisis responsibility—perceptions on the locus of control, stability, and controllability—through the theoretical lens of motivated reasoning and confirmatory bias (Kim, 2013, 2014). Publics tend to selectively deal with negative crisis information to maintain internal consistency with their previous expectations or beliefs toward a corporation (Dawar & Pillutla, 2000; Dean, 2004; Kim, 2013). On the other hand, some other research has emphasized the importance of post-crisis corporate associations as a consequence of publics' evaluations of a crisis itself and a crisis-

involved company (e.g., Coombs & Holladay, 2009; Lee, 2004). As memory-based psychological associations, corporate associations are pre-existing and likely to be subconscious in a normal and routine (i.e., pre-crisis) situations. However, such pre-existing corporate associations are affected by a crisis (a non-routine situation). Publics' pre-crisis corporate associations could change after they are exposed to negative crisis information. These post-crisis corporate associations are of interest in this study, which aims to uncover how these associations are affected by publics' social-psychological dynamics and behaviors during a crisis.

Social Institutions

Much of existing crisis communication research is predominately applicable to democratic societies (especially the US; Huang, Wu & Cheng., 2015) where similar institutional arrangements in politics, law, economics, and culture are applied (Rawls, 2005). Consequently, when it comes to non-democratic societies or to the underlying impacts of contextual and cultural factors, relatively few studies are available (Avery et al., 2010). Previous studies on CSR pointed out that “the institutional conditions that influence the corporate behaviors have been neglected” (Campbell, 2006, p. 925; Walsh, Weber, & Margolis, 2003, p. 877). Furthermore, Campbell (2007) argued that institutional conditions mediated the relationship between basic economic conditions and corporate behaviors. In a similar vein, this study argues that when investigating corporate crises scholars should take the impacts of social institutions into consideration. Social institutions consist of a set of formal and informal rules and taken-for-granted frameworks (Knight, 1992). The members of a community share similar rules, which in turn, structure the way members socially interact with one another. As social institutions provide fundamental backgrounds where individuals' or groups' actions take place (Jones, 1999), it is of critical importance to investigate them in crisis situations.

Previous studies on institutional analysis, grounded in Western contexts, have identified a set of elements of political, economic, and cultural institutions that frame corporate behaviors (Campbell, 2006, 2007). First, the presence of governmental regulations and government capacity to monitor businesses structures corporate behaviors (North, 1990; Ostrom, 1990). Firms may follow or resist governmental regulations. At the same time, they negotiate with the regulators for the initial formulation of regulations and try to influence those in authority. Second, well-organized industry associations and their self-regulations may also exert a crucial influence on corporate behaviors. For instance, Campbell (2006) underscored that corporate peer pressure is one of the most effective means of facilitating CSR practices. The self-regulations of industry often result from concerns about how to avoid industrial crisis and potential governmental intervention. Third, a participatory civic culture (Jones, 1996) could engender in companies the willingness to behave in more appropriate ways. For instance, various nongovernmental organizations (NGOs) monitor the conduct of firms and have established codes of ethical behaviors (Frank, Hironaka, Meyer, Schofer, & Tuma, 1999). Likewise, social movements and activist groups pressure corporations to demonstrate ethical practices (Campbell, 2006). Fourth, the media can also counterbalance corporate power. It can constrain corporate actions and enjoin ethical behaviors by monitoring and reporting on a company's actions. Fifth, legal institutions affect corporations, compelling them to form better relationships with a variety of stakeholders (Campbell, 2006).

The Prominent Role of Government in China

According to the Chinese central government in 1993, China's official political economic system is "socialist market economy with Chinese characteristics." The basic logic of "socialist market economy" is to allow the market allocations of resources

based on the macro-adjustment of the state and the influence of socialist ideology. Different from the official political economic system, social institutions are embedded in various formal and informal rules as well as manifest and underlying rules in Chinese society. In the Chinese context, Wu (2007) delimited social institutions to the domains of *administrative bureaucratic tradition and market economy development*. On the one hand, the social interactions of Chinese corporations and publics are under the constraints and instructions of official laws and regulations from the socialist market system. On the other hand, China's 2000-year-old administrative bureaucratic history has evolved into social cultures and mainstream values to frame Chinese publics' social interactions with corporations. The main features of social institutions in China are as follows.

First, the central Chinese government possesses a political and cultural legitimacy to lead the market economy in China. "As a paternal imperial state for nearly 2000 years, China has had particular respect for the administrative bureaucratic organizations in both its political and social cultures" (Wu, 2007, p. 770). In the period of feudal dynasties, Chinese people regarded the bureaucratic organizations as the protector and adjudicator under the influence of Confucianism. Since the economic reform in 1978, the central government has, in contrast, been transforming its role from the commander of the economy to the policy maker for the development of market economy. Nevertheless, in China today a similar political and social Chinese culture continues to exert underlying influences on society (Keith & Peerenboom, 2005).

Second, the Chinese legal system is known for its lack of independence. The Company Law provides legislative justification for the presence of at least one

representative from the Chinese Communist Party (CCP) within each company.¹ The law articles reflect the CCP and Chinese government's intentions to guide and closely monitor corporate behaviors (Hawes, 2007, 2008). The government regulates corporate culture through promoting standard corporate culture within companies (Hawes, 2007, 2008). Moreover, the latest policy of the Chinese government remarkably reinforces "the control of private and foreign-funded sectors of the Chinese economy" (Hawes, 2007, p. 823).

Third, the government is not just the leader and regulator of Chinese corporations but also the owner of a number of firms. About 63% of Chinese publicly listed companies (1481 in total) have the state as the ultimate controller, "comparing with the highest 23.5% in Singapore and the lowest 0.08% in the U.S." (Li & Zhang, 2010, p. 633). Legitimate government interference is officially stated in CEO contracts for state-owned-enterprises (Bai & Xu, 2005). Due to the high political influence of the government, corporations strive to meet expectations of the government (Li & Zhang, 2010) and to achieve non-financial goals complying with government policies.

Fourth, other sectors beyond the state and communist party such as NGOs are not mature or strong enough to counterbalance corporate power in China. Chinese press system is under the control of the government and the party. Most industry associations are also top-down government-organized. Participatory civic culture is also absent in Chinese history, and the Chinese law explicitly forbids offline social movements, protests, or demonstrations. Thus, "public interest groups and NGOs have been viewed with suspicion and tightly monitored and controlled by the government" (Tang & Li, p. 202). Chinese civil society is still at a premature stage.

¹ For details see the Company Law, articles 1, 5, 18 and 19.

Consequently, Chinese corporations regard the government as their principal stakeholder group and pay less attention to domestic publics. In Western culture, the collective actions of consumers through purchase decisions exert powerful influences on corporate behaviors. Not so in China, where corporations are more concerned with the government and its powerful influence. If the local or central government does not interfere with a corporate crisis directly, the Chinese corporation is not likely to change their behaviors even if such behaviors may have led to the crisis. Due to the perceived powerful influences of the government on corporate behaviors, Chinese publics also tend to resort to the government to pressure corporations rather than relying on lawsuits, personal appealing, or collective action against the corporations in times of crisis. Thus when a firm violates ethical standards or hurts the well-being of publics, publics form negative associations against the government.

Conceptualization of Institutional Associations in China

Considering the unique characteristics of Chinese social institutions in terms of the greater influence of the government in crisis, this study conceptualizes institutional associations as publics' psychological perceptions and evaluations toward social institutions especially the government in China. Institutional associations fundamentally frame and influence the way both corporations and publics feel and behave in society as institutional associations are generally bound by societal rules. Considering the prominent role of government among social institutions, this research further conceptualizes governmental ability (GA) and governmental social responsibility (GSR) associations as two dimensions of government associations.

This study defines GA association as publics' psychological perceptions or evaluations of the government's overall governing capability, including that of controlling and regulating corporate practice in the market. We define GSR association

as publics' general perceptions or evaluations of the overall governmental fitness to benefit society. This includes the government's ethical responsibility to promote the general welfare, human rights, public education, public health, environmental protection, and other commitments to social issues. It also includes the quality of regulations established so as to compel ethical corporate practice to ensure the well-being of society. In theory, the government is supposed to serve the general public and to benefit society. However, massive news coverage on governmental corruption shows that governmental ethics and virtue are particularly under public scrutiny in corporate crises. Therefore, we consider that it is necessary to examine GSR associations separately. Due to the close relations between the government and corporations in China, Chinese publics tend to attribute crisis responsibility to both corporations and related governmental institutions.

Proposed Theoretical Model

The situational theory of publics suggests that problem recognition, constraint recognition, and involvement recognition are three situational factors, which predict publics' communicative action (Grunig & Repper, 1992; Grunig, 1997; Kim & Grunig, 2011). Problem recognition refers to "one's perception that something is missing and that there is no immediately applicable solution to it" (Kim & Krishna, 2014, p. 11). Involvement recognition is defined as "a perceived connection between the self and the problem" (Kim & Krishna, 2014, p. 23). Both problem and involvement recognitions positively facilitate publics' communicative actions. As people recognize more problems and possess higher involvement with an issue, they tend to exert more active communicative actions to change unfavorable situations. By contrast, constraint recognition refers to the degree to which publics believe their communicative actions solve the problems as limited by factors beyond their control, and it negatively predicts

communicative actions. If a problem solver perceives his or her efforts are of no use or are confined, he or she is less likely to engage in communication behaviors.

Furthermore, Kim and Grunig (2011) introduced into the situational theory the variable “situational motivation.” According to their conceptualization, situational motivation indicates “a state of situation-specific cognitive and epistemic readiness to make problem-solving efforts” (p. 132). Kim and Grunig further argued that problem, constraint, and involvement recognitions should first trigger situational motivation—the desire of publics to probe the problematic situation—and the motivation in turn stimulates publics to take active communicative actions to solve the problems. Scholars in situational theory research have incorporated situational motivation as an additional construct to address publics’ socio-psychological aspects in the process of publics’ communicative actions (e.g., Kim & Grunig, 2011; Kim, Ni, Kim, & Kim, 2012). Nevertheless, the measurement adopted for situational motivations seems to be somewhat problematic due to the lack of validity and low reliability of the construct, as Kim and Grunig acknowledged in their paper. For instance, the items used to measure situational motivation included the following: “How often do you stop to think about each of these three problems?” “To what extent would you say you are curious about this problem?” and “Please indicate how much you would like to understand this problem better (Kim et al., 2012, p. 163). All these measurement items are not exactly measuring situational motivation; rather they seem to measure publics’ interest or willingness levels for problem solving. Yet motivation should refer to a certain type of desire that moves people to a particular action or behavior. As such, examples of public motivations identified in previous literature on public complaints or WOM communication have included motivations of anxiety reduction, advice seeking, self-enhancement, status-seeking, and so forth (e.g., Henning-Thurau, Gwinner, Walsh, &

Gremler, 2004). The situational motivation used in prior research informed by situational theory seems to fall short of addressing actual psychological motivations behind solving problems, such as anxiety-reduction motivation. Indeed, as noted in Kim and Gruing's 2011 study, there are some concerns for its validity and reliability. Considering all these, the current study does not incorporate situational motivation into the model being tested as part of socio-psychological aspects.

Instead, this study introduces publics' post-crisis corporate associations and institutional associations as a way of investigating the relationships among the following: situational predictors (i.e., problem, constraint, and involvement recognitions), publics' communicative actions during the crisis, and post-crisis psychological associations of publics. When confronting a corporate crisis, publics' problem, constraint, and involvement recognitions toward the crisis itself are likely to influence the degree of their communicative action. Publics' recognitions of problem, constraint, and involvement would be certainly affected by their pre-existing corporate and institutional associations. At the same time, however, due to the negative crisis information that comes out during the crisis, such recognitions as well as the subsequent active communicative actions will trigger publics to form certain types of post-crisis corporate associations and institutional associations. Since this study is adopting a real crisis to test the relationships, we only consider post-crisis associations of publics rather than pre-crisis associations. We do so because measuring pre-crisis associations after the real crisis happens is limited and retrospective in nature. Based on the discussion above, this study proposes the following hypotheses with regard to how post-crisis corporate associations are affected by publics' recognition levels of problem, constraint, and involvement and their communicative actions during the crisis.

- H1: Problem recognition is related to (a) active communicative actions positively but (b) post-crisis corporate associations negatively.

- H2: Constraint recognition is negatively associated with (a) active communicative actions and (b) post-crisis corporate associations.
- H3: Involvement recognition is associated with (a) active communicative actions positively but (b) post-crisis corporate associations negatively.
- H4: Active communicative action is related to (a) corporate associations and (b) government associations.

Moreover, as we discussed earlier for the relationship between corporate associations and government associations, negative corporate associations inflicted by crisis will contribute to negative institutional associations of the government as Chinese publics perceive that Chinese companies take actions to respond to their crises based on the government's reactions and instructions. Therefore, combined with the situational predictors' impacts, we postulate the serial mediations of active communicative actions and corporate associations between the situational predictors of problem, constraint, and involvement recognitions and government associations, as well as a simple mediation of corporate associations between active communicative actions and government associations. The proposed theoretical framework of this study is presented in Figure 1.

- H5: The impacts of (a) problem, (b) constraint, and (c) involvement recognitions on institutional associations of the government will be serially mediated by active communicative actions and post-crisis corporate associations.
- H6: Post-crisis corporate associations will mediate the impact of active communicative actions on post-crisis institutional associations of the government.

[Figure 1 Insert Here]

Method

This study employs an online survey methodology to investigate the relationships among variables presented in Figure 1. Since this study is concerned with the process of publics' communicative action during crisis and their post-crisis

psychological associations, we have selected a real crisis—the May 2016 Baidu crisis in China. An introduction to the case and selection criteria are provided below.

Case Introduction and Selection Criteria

In China, Baidu is an Internet giant, with a search engine that owns 80% of domestic market share and of social media services (Oliver, 2016). On the first day of May 2016, Baidu underwent its greatest crisis. A student, Wei, tried a dubious cancer treatment that had shown up at the top of a search query list provided by Baidu. Wei's death set off an online firestorm with many accusing Baidu of unethical behavior. The grounds for the outcry was based on Baidu's ranking of search results being based on the fees advertisers paid; advertisements could easily evade proper vetting or scrutiny by the company. Baidu defended itself, arguing that the major transgressor was the hospital that provided the questionable cancer treatment. Baidu also argued that it was beyond their responsibility to fact-check advertisers' claims before they showed up on web search results. Although Baidu's defence had some validity, the incident reminded people of previous unethical conduct carried out by Baidu² and other disappointing corporate practices publicized in recent years. The public called on the government to immediately implement regulations, accusing all actors of indifference and non-sympathetic attitudes. At the same time, people questioned the central government's capacity to regulate and be effective.

On May 2, 2016, both the State Administration for Industry and Commerce (SAIC) and Cyberspace Administration of China (CAC) established a committee to investigate Baidu. On May 9, the committee announced that the search results of Baidu search engine appeared to have an influence on Wei's selection of cancer treatment. Baidu was

² The most profound issue for Baidu was the fact that Baidu sold its bleeder's disease forum to a medical group that paid money to the company in January 2016. Baidu forced the existing voluntary moderator of that forum to step down and then appointed a paid user as an official moderator for the forum. The price changed for the one-year moderator position was around 2 million Chinese Yuan.

then asked to make several major changes: “a) cleaning up the healthcare advertisements in its search results; b) preventing medical institutions that had not been approved by the government from being promoted on Baidu; c) overhauling its search results ranking system, so that they are not solely determined by how much advertisers have paid, and are primarily ranked by credibility; d) ensuring that paid-for promotions do not consist of more than 30% of search results per page” (BBC News, 2016, para 8). On May 10, the CEO of Baidu called for all employees to place “values before profits” in its staff meeting and posted a letter on Sina Weibo³ to convince the general public of the company’s determination.

The current study selected the Baidu crisis for theoretical and practical reasons. First, this was a preventable crisis, which means that Baidu was considered a transgressor. When a company is considered a transgressor in a preventable crisis, publics tend to pay more attention to the company and actively participate in communicative action. For this reason, the most frequently analyzed cases in academic crisis communication research are preventable crises (Kim, Avery, & Lariscy, 2009). Second, this case presents a typical confrontational situation between corporations and publics in China, where the government—as a third party—is deeply involved and stands accused. Third, the issue Baidu had to face is common and universal for the fast-growing Internet industry in China. Our findings could provide valuable insights for the entire industry.

Data Collection and Sample

Data were collected from a national probability sample through an online survey from May 12 to May 18, 2016 (right after the crisis was contained), employing a market research firm (wenjuan.com) that used IP addresses as a sampling frame to approach

³ A microblogging site that is similar to Twitter with more than 530 million users in China.

research targets. The study screened survey respondents based on their identification as significant publics in the Baidu crisis through the questions of whether they were actual users of Baidu's services and whether they were aware of this crisis. Of a total of 1,237 targeted respondents, 450 responses were valid (response rate: 36.38%). Males accounted for 53.3% ($n = 240$) of the total sample, and females accounted for 46.7% ($n = 210$). The average age was 33, ranging from 16 to 64 ($SD = 10.49$). The respondents with at least a college degree consisted of 70.6% ($n = 318$). The individual monthly income of 176 (39.1%) fell in the range from 767-1,227 USD, followed by 1,228-1,840 USD ($n = 101$, 22.4%) and 460-766 USD ($n = 95$, 21.1%). According to CNNIC (2016), the gender ratio of Chinese netizens is 53.6% for males and 46.4% for females; the average age is around 29; a little less than half (48.8%) had at least a college degree. With regard to monthly income, those making USD 460-766 made up the largest portion (23.4%). Compared with the demographics of the general Chinese netizen population, our respondents for the Baidu-crisis were older with higher education level and monthly income.

Measures

Problem recognition. Measure items for this variable were adapted from the situational theory scale (Kim & Grunig, 2011). Six items were measured with a five-point Likert scale (1 = strongly agree, 5 = strongly disagree): "I considered a serious problem of the Baidu was presented in this case." "I paid attention to the problem of Baidu a lot." "I considered something needs to be done to solve this problem of Baidu." "I considered a serious problem of Internet and business regulatory administration was presented in this issue." "I paid attention to the problem of the Internet and business regulatory administration a lot." "I considered something needs to be done to solve this

problem of Internet and business regulatory administration” ($M = 4.14$, $SD = .52$, *Cronbach’s a* = .71).

Constraint recognition. Three measure items for this were also adapted from the situational theory scale (Kim & Grunig, 2011) using a five-point Likert scale (all reverse-coded): I thought (considered) “I can make a difference in the problem at Baidu to some extent.” “I can take actions to alleviate the problem at Baidu.” “My opinions on the problem at Baidu matter to those who were addressing it” ($M = 2.5$, $SD = .78$, *Cronbach’s a* = .74).

Involvement recognition. Adapted from the situational theory scale (Kim & Grunig, 2011), three items were asked with a five-point Likert scale: I considered (felt) “a strong tie with the problem of Baidu”; “that the problem of Baidu affected my life”; “that the problem of Baidu had serious consequences for my life and someone close to me” ($M = 3.73$, $SD = .76$, *Cronbach’s a* = .73).

Active communicative action. Adapted from the situational theory scale (Kim & Grunig, 2011), five items were asked using a five-point Likert scale: During the crisis, “I actively searched for information on the problem of Baidu”; “I contacted others about the problem of Baidu”; “I actively started a conversation on the problem of Baidu with others”; “I posted my view on the problem of Baidu on the Internet”; “I made others realize the importance of the problem of Baidu” ($M = 3.52$; $SD = .74$, *Cronbach’s a* = .81).

Corporate associations. Adapted from the scale in previous studies (Kim, 2011, 2013), three items for each CA and CSR associations were asked with a five-point Likert scale. This variable consisted of two dimensions of CA associations and CSR associations ($M = 3.16$, $SD = .88$, *Cronbach’s a* = .89). For CA associations, the following items were used: I think “Baidu provides high-quality products and services”;

“Baidu has expertise for its products and services”; “Baidu provides innovative products and services”. ($M=3.32$, $SD=.86$, *Cronbach’s a* = .79). For CSR associations, the followings were asked: I think “Baidu is a reliable corporation”; “Baidu behaves responsibly regarding business ethics”; “Baidu fulfills its social responsibilities” ($M=3.00$, $SD=1.00$, *Cronbach’s a* = .85).

Institutional associations of government. This variable consisted of two dimensions: GA associations and GSR associations. The scales were developed in reference with the previous qualitative literature on socialist market economy in China (Wu, 2007; Hawes, 2007, 2008), the quantitative scale of politics and economy attitudes (Hahn & Logvinenko, 2008), the role of government (ISSP, 2015), and corporate associations (Kim, 2011, 2013). Altogether, 12 items were developed and measured, consisting of six items for each dimension. Finally, eight items—five for GA and three for GSR—were reserved based on the results of an exploratory factor analysis (EFA), a confirmatory factor analysis (CFA), and reliability examination. Table 1 presents the factor loadings for each item and reliability scores.

Results

Data Analysis

Before testing the hypotheses, a confirmatory factor analysis (CFA) was performed including all variables to examine discriminant and convergent validities of the variables using AMOS 23. Among the variables, CA and CSR associations were treated as second-order factors of corporate associations. GA and GSR associations were also treated as second-order factors of institutional associations. The measurement model test revealed a good model fit: $\chi^2 = 585$ with 398 *df*, $\chi^2/df = 1.47 < 3$, comparative fit index (CFI) = .97, Tucker-Lewis index (TLI) = .96, incremental fit index (IFI) = .97, root mean square error of approximation (RMSEA) = .03 < .05 (Hu &

Bentler, 1999).

The discriminant and convergent validities of all variables were then investigated in reference with the criteria of Hair, Black, Babin, Anderson, and Tatham (2006). Only the variables of corporate associations and government associations revealed satisfactory discriminant and convergent validities with all other factors included. However, the variables from the situational theory such as problem, constraint, and involvement recognitions and communicative actions did not reveal satisfactory discriminant and convergent validities. The average variance extracted (AVE) values for problem (.30), constraint (.49), involvement (.47) recognitions, and active communicative actions (.45) were less than .50, which indicated unsatisfactory convergent validities among the variables. Also, the AVE values of problem recognition (MSVs = .54), involvement recognition (MSVs = .54), and active communicative action (MSVs = .47) were smaller than maximum shared variances of each variable (MSVs). In addition, the square root of the AVE for problem recognition, involvement recognition, and active communicative action were smaller than inter-construct correlations. These indicated unsatisfactory discriminant validities of the variables. Despite the unsatisfactory discriminant and convergent validities obtained for the situational theory variables, this study kept these variables considering the scales of the situational theory variables have been substantially examined by previous studies in public relations⁴ (e.g., Chen, Hung-Baesecke, & Kim, 2016; Grunig, 1989, 1997; Kim &

4 Using database search for published articles with key words of situational theory, we extracted a total of 500 articles that mentioned the situational theory. Of the 500 articles, 40 mainly focused on the major variables of situational theory either qualitatively (13 articles) or quantitatively (27 articles). Among the 27 articles that adopted and empirically tested the situational theory variables (i.e., problem recognition, constraint recognition, involvement recognition, and active communicative action) and the relationships among the variables, none reported discriminant and convergent validities of these variables when searching these 27 articles more in detail. Of the 27 articles, only 8 tested the relationships in countries other than the US (3 for South Korea; 1 for Taiwan, 1 for Nepal, 1 Swiss, 1 Singapore, and 1 China [a comparative study with US]).

Grunig, 2011; Kim et al., 2012; Zheng, Mckeever & Xu, 2016).

To test the hypotheses, this study employed serial multiple mediation model tests using Hayes' (2013) PROCESS (model 6). The PROCESS is appropriate for testing serial mediations of the model because it provides model estimations for serial mediation analyses and bootstrap confidence intervals (CIs). Previous research has argued that the bootstrapping method is better than other methods as it provides relatively higher power and a lower Type 1 error rate (Hayes, 2013; Preacher & Hayes, 2008).

Test Hypotheses

To examine how problem recognition affects active communicative action (H1a) and post-crisis corporate associations (H1b), and in turn, government associations through the serial mediations of active communicative action and post-crisis corporate associations (H5a), the study performed a serial mediation analysis (PROCESS model 6 with the two mediators). Results suggested that problem recognition was positively related to active communicative actions ($\beta = .55, p < .001$) and negatively related to corporate associations ($\beta = -.35, p < .001$), supporting H1 (a) and (b). Also, the serial mediation effects from problem recognition— via active communicative actions and corporate associations—to institutional associations of the government was significant ($\beta = .06, SE = .02, CIs = [.04, .10]$), supporting H5 (a). This suggests that increased problem recognition increased communicative action, and the increased communicative action resulted in increased positive post-crisis corporate associations; the improved positive corporate associations result in an increase in positive post-crisis government associations. In addition, the serial mediation effects from problem recognition— mediated by corporate associations—to government associations was also significant ($\beta = -.16, SE = .04, CIs = [-.24, -.10]$), indicating when problem recognition during the

crisis was high, a decrease in positive post-crisis corporate associations was observed, and the decreased positive corporate associations resulted in a decrease in positive post-crisis government associations.

For the constraint recognition variable and its relationships with the other variables (H2a, H2b, and H5b), the same procedure as described above was followed. The results of the serial mediation model test suggested that constraint recognition negatively affected active communicative action ($\beta = -.52, p < .001$) and corporate associations ($\beta = -.29, p < .001$), supporting H2 (a) and (b). The mediation effects from constraint recognition—through corporate associations—to government associations was significant ($\beta = -.13, SE = .03, CIs = [-.20, -.07]$), but the serial mediations from constraint recognition—via active communicative action and corporate associations—to government associations was not significant ($\beta = -.04, SE = .03, CIs = [-.09, .01]$). This indicated that constraint recognition during the crisis decreased positive post-crisis corporate associations, and in turn decreased positive post-crisis government associations. However, communicative actions did not function as a mediator in the process. Therefore, H5 (b) for the full serial mediations was not supported.

To test how involvement recognition affected communicative action (H3a) and post-crisis corporate associations (H3b) and in turn government associations through the serial mediations of the other two mediators (H5c), another serial mediation analysis was performed. Results indicated that involvement recognition positively affected active communicative actions ($\beta = .40, p < .001$) and negatively but insignificantly influenced corporate associations ($\beta = -.07, p > .05$). Thus, H3 (a) was supported, but H3 (b) was not. Since there was no direct impact of involvement recognition on post-crisis corporate associations, we examined again whether communicative action mediated the impact of involvement recognition on corporation associations. The

mediation analysis result found the full mediation of communicative action between involvement recognition and corporate associations ($\beta = .08$, $SE = .02$, $CI_s = [.03, .14]$). This indicated the impact of involvement recognition on post-crisis corporate associations only occurred when mediated by active communicative action. As to H5 (c), the serial mediation effects from involvement recognition—via active communicative action and corporate associations—to government associations was significant ($\beta = .03$, $SE = .01$, $CI_s = [.02, .06]$), supporting H5 (c). This indicated that involvement recognition increased active communicative action, and in turn improved positive post-crisis corporate associations, and finally post-crisis government associations. In addition, the mediation effect from involvement recognition—via active communicative action—to government associations was also significant ($\beta = .04$, $SE = .02$, $CI_s = [.01, .07]$), indicating involvement recognition resulted in an increase in communicative action during the crisis, and the communicative action improved positive post-crisis government associations.

To test H4a and H4b (the direct impact of active communicative action on corporate associations and government associations) as well as H6 (the mediating effect of corporate associations between active communicative action and government associations), a simple mediation model (with model 4) was run. Results suggested that active communicative action was positively related to post-crisis corporate associations ($\beta = .17$, $p < .01$) as well as post-crisis government associations ($\beta = .10$, $p < .02$). The mediating effect of corporate associations between communicative action and government associations was also significant ($\beta = .07$, $SE = .02$, $CI_s = [.03, .12]$). Hence, both H4s and H6 were supported. The overall results of the model are presented in Figure 2.

[Insert Figure 2 here]

Discussion

The current study provides insights into how Chinese consumers with varying degrees of problem, constraint, and involvement recognitions performed communicative actions during a crisis and subsequently form post-crisis psychological associations toward a crisis-involved company and the government. The findings of this study indicated that Chinese publics' problem and involvement recognitions about the Baidu crisis significantly increased their active communicative action during the crisis, whereas constraint recognition decreased such action. This is in line with the findings of previous situational theory research (e.g., Grunig, 1997; Kim & Grunig, 2011), confirming the similar relationships in the context of corporate crisis in China.

In addition, the serial mediations from problem and involvement recognitions—via active communicative action and post-crisis corporate associations— to post-crisis government associations occurred in a positive direction, whereas only the significant simple mediation from constraint recognition—via post-crisis corporate associations — to post-crisis government associations happened in a negative direction. This indicated that when publics recognized higher levels of problem and involvement related to the crisis, their communicative action increased, and in turn, those who were active in searching for relevant information and sharing their views with others tended to form more positive post-crisis corporate associations toward Baidu and subsequently have more positive post-crisis associations toward the government. However, when publics recognized higher constraints to improve problematic situations, their post-crisis corporate associations and subsequent post-crisis government associations became more negative. It seems reasonable that no mediation effect of active communicative action was found between constraint recognition and post-crisis corporate associations; after all, publics tend to become reluctant to participate in active communicative actions

when they perceive higher constraints in solving problematic situations (Kim, & Grunig, 2011). Thus, the impact of active communicative action faded when constraint recognition was negatively affecting post-crisis corporate and government associations.

It is worth noting that the direct impacts of problem recognition on post-crisis corporate associations were initially negative but their indirect effects became positive when mediated by active communicative action. In other words, those who had higher levels of problem recognition tended to form more negative associations toward the company after the crisis, but when those with higher levels of problem recognition actively participated in communicative action during the crisis, they tended to form more positive post-crisis corporate associations toward the company. Actively seeking and sharing information related to the crisis led to more positive post-crisis corporate associations. An explanation for this may lie in Baidu's active crisis management: Baidu, especially its employees actively responded to the crisis through explaining its business model (Wei, 2016; Zhihu, 2016). Another possible explanation is that Baidu was not perceived as the primary transgressor (the hospital was). Thus, when publics were actively involved in communicative action about the crisis by searching for more information and sharing their views with others, they may have become more rational and reasonable when evaluating Baidu. This may have led them to reveal more positive post-crisis associations toward the company after the crisis was contained. However, we should be cautious about trying to claim that active communicative action during the crisis will generate more positive post-crisis corporate associations. Rather, the relationship will depend on how good the company's crisis responses are and how well it manages the crisis. Previous crisis research has suggested that a company with a relatively bad relationship history tends to be evaluated on the basis of their crisis responses' appropriateness more than a company with a good relationship history (e.g.,

Dean, 2004). Thus, future research should investigate more thoroughly (and with an experimental design) how the relationship between publics' active communicative action and post-crisis corporate associations changes depending on the company's crisis responses and its previous relationship history.

One of the most important findings of this study is related to the relationship between post-crisis corporate associations and post-crisis institutional associations of the government in the process of the underlying socio-psychological dynamics of Chinese publics. How Chinese publics evaluate the company in crisis is strongly related to how they perceive the government. Given the socialistic economic development of China and its long tradition of an administrative bureaucratic system, the Chinese government plays an important parental role in leading and regulating corporations in China (Wu, 2007). This unique characteristic of the Chinese government thus fundamentally frames Chinese publics' attitudes and behaviors in the corporate field of China. The Chinese government is often under public scrutiny in corporate crises as publics suspect the government of being venal—accepting bribes to favor corporate interests over the public interests (Yang, 2015). At the same time, however, publics prefer an intervention from the government and rely on governmental regulations to change unethical behaviors of corporations. In the Baidu crisis, publics also called for government intervention rather than trying to directly influence Baidu via boycotts or protests (Sterling, 2016). This unique linkage between corporate and government associations of publics, to some extent, echoes what the cultural dimensions of Hofstede (1980, 1991) suggested regarding different public expectations of a hierarchy. Previous crisis research has also identified cultural differences in public expectations of companies' crisis management. People in East Asia, where a high power-distance is evident, tend to demand that the top executives in a corporate hierarchy be visible in a

crisis and take charge of handling the crisis (e.g., Haruta & Hallahan, 2003). Chinese publics have a strong awareness of the hierarchy in power in the authoritarian Chinese society (Martinsons, 2004). From this perspective, Chinese publics expect the government to get involved in a corporate crisis, and consequently how they evaluate the company after the crisis is, as found in our study, strongly tied to how they evaluate the government.

Contextualized in China, the findings of this study address culturally sensitive aspects of crisis communication research (Avery et al., 2010) through proposing institutional associations of the government as an important construct in the process of Chinese publics' socio-psychological mechanism in crisis. This study conceptualized institutional associations particularly as government associations in China with the two dimensions of GA and GSR associations. Although previous crisis communication studies have argued for the significant impacts of culture as part of social institutions in crisis communication (e.g. Haruta & Hallahan, 2003; Taylor, 2000), most of them emphasized cultural differences at a macro level by employing a macro-level cross-cultural approach (e.g., Hofstede, 1980, 1991) without measuring individual-level variables that can address cultural differences. Landman (2000) pointed out that studies that address cultural differences often fall into either ecological fallacy (i.e., apply the results obtained from macro-level data analyses to explain individual-level behavioral differences) or individualist fallacy (i.e., apply the results obtained from individual-level data analyses to infer macro-level cultural differences). "The problems of ecological and individualist fallacies occur when inferences are drawn about one level of analysis using evidence from another" (Landman, 2000, p. 53). Hence, it is imperative to develop the construct measurements that can present the influence of macro factors (e.g., culture) and at the same time, be operationalized at an individual level. In this regard, this study

provides a basis to examine the impact of cultural differences (in social institutions) through measuring institutional associations (i.e., government associations) at an individual level. This study argues that the construct of institutional associations that was measured at an individual level is useful for uncovering cultural differences at a macro-level. From this perspective, the construct of government associations as part of institutional associations could be useful for and be adopted to future comparative and cross-cultural research in crisis communication.

Limitations and Future Research

Government associations with the two dimensions of GA and GSR associations, as part of institutional associations are here newly conceptualized and tested in the Chinese context. This study calls for future research to examine the applicability of these new constructs in other social contexts. It is also imperative to further explore whether government associations play a similar role in corporate crises in other countries where different social institutions are in effect. The scale of GA and GSR associations was grounded in the context of China and, due to the Chinese government's unique role in corporate society, this study chose government associations from other possible institutional associations. It might therefore be necessary to consider other social institutional elements, such as legal or media systems when examining the role of institutional associations in other contexts. In addition, the measures of government associations should be refined in future research. Although the reliability of the construct was satisfactory, the factor loading of one item from GSR associations was lower than .70. Thus, future research should work on developing and refining more valid measurements of government associations.

This study measured the situational factors of publics, communicative action, and post-crisis corporate and government associations using an online survey directly

following the real Baidu crisis. Thus, researchers should be cautious when interpreting causal relationships among the constructs. Future research could employ experiment methods to better detect causal relationships among the constructs. By measuring both pre- and post-crisis corporate and government associations, future research could also evaluate changes in publics' perceptions in times of crisis. Lastly, the situational factors used in our study, adapted from the previous situational theory research, such as problem, constraint, and involvement recognitions and active communicative actions, revealed insufficient discriminant and convergent validities. We are unsure if this insufficient validity issues were resulting from the limitation of this particular study or from the original scales provided by the situational theory-related research. Indeed, our search found that none of the published situational theory research has reported the validity tests of the theory's major variables (see footnote 6). Future research should thus be more rigorous in testing and reporting the validity issues of the variables and should work on refining the situational theory's measurements.

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Table 1. Measurement Items of Institutional Associations

Variables and Measures	Factor Loadings	M	SD	α
Institutional Associations		3.47	.75	.88
GA Associations		3.28	.84	.86
I think the government always makes correct decisions.	.73			
I think the government is capable.	.71			
I think the government is highly efficient.	.81			
I think the governmental regulation toward corporations is timely.	.82			
I think the governmental regulation toward corporations is proper.	.72			
GSR Associations		3.79	.81	.80
I think the decisions of government benefits the whole society.	.68			
I think the governmental regulation toward corporations benefits the interest of people.	.83			
I think the governmental regulation toward corporations benefits the well being of society.	.87			

Note: N=450; A principal components factor analysis using varimax rotation was conducted; GA explained 54.56% variance and GSR explained 13.48% variance.

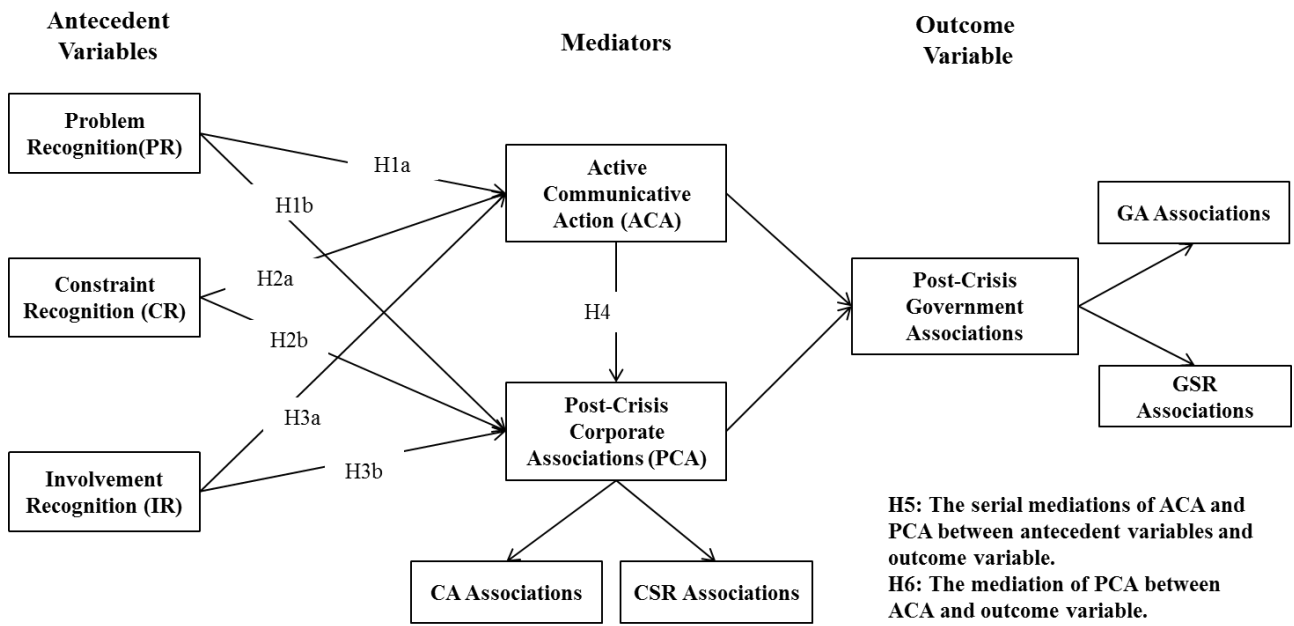


Figure 1. Proposed Theoretical Model

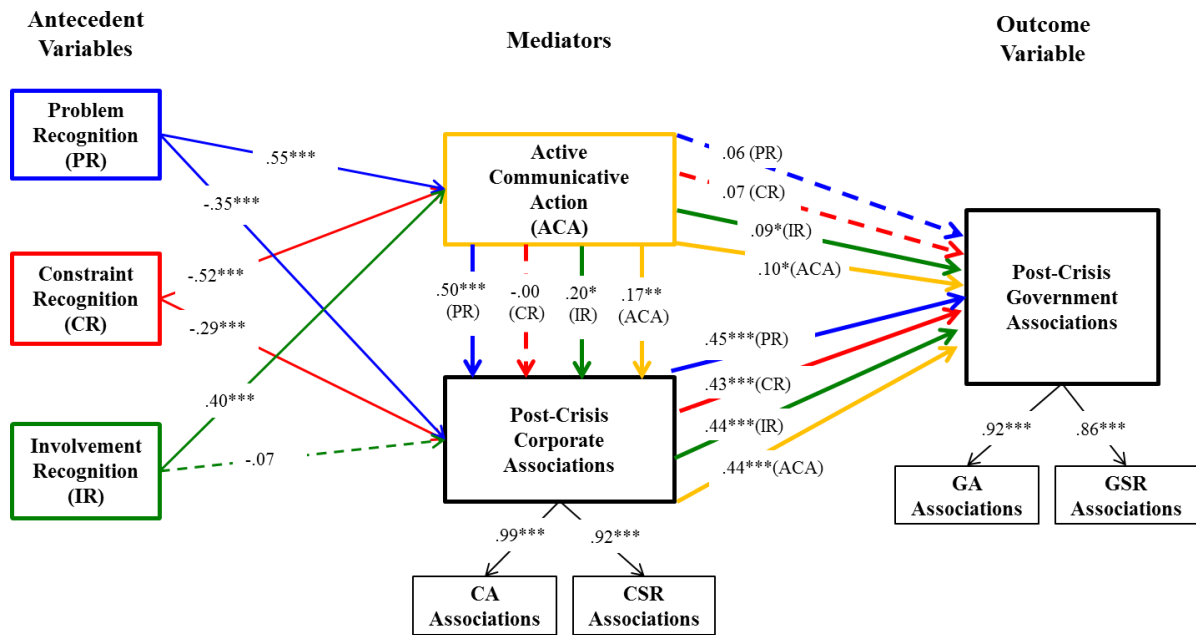


Figure 2. The Final Model with Estimated standardized effects among the constructs

Note: N=450; * $p < .05$, ** $p < .01$, *** $p < .001$; The solid line indicates a significant path while the dashed line refers to an insignificant path; The blue line indicates the path begins with “problem recognition”; The red line indicates the path begins with “constraint recognition”; The green line indicates the path from “involvement recognition”; The orange line indicates the path from “active communicative action.”