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Solving strategy for unintended criticism in online space

Consumer response to firm crisis in online discussion forum

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Abstract

Purpose – The purpose of this paper is to examine how information load, consumers' regulatory focus, and prior attitudes interact to influence consumers' response to firm crisis in the context of online discussion forum. By doing this, this study presents the solving strategy for unintended criticism in online space.

Design/methodology/approach – Based on selective exposure and regulatory focus theory, the author proposes that consumers' regulatory focus and prior attitudes toward a focal firm influence the relationship between information load and selective exposure phenomenon. The data for this study are obtained from an experimental research design. Data were collected from 165 college students who have an experience with an online discussion forum.

Findings – The author finds that selective exposure is likely to occur when information load is high (vs low). More importantly, this selective exposure is influenced by regulatory focus. Prevention-focussed consumers with favorable (vs unfavorable) prior attitudes toward the target firm tend to evaluate it less favorably, whereas promotion-focussed consumers with unfavorable (vs favorable) prior attitudes are likely to evaluate it more favorably when information load is high.

Originality/value – Evidence is found that consumers' regulatory focus moderates the effect of information quantity on confirmatory information search, and induces different response strategies to firm crisis information.

Keywords Online discussion forum, Bias information adoption, Confirmatory information search, Regulatory focus

Paper type Research paper

1. Introduction

Online discussion allows people to interact with other people in web (Schellens and Valcke, 2005; Wright and Street, 2007; Kaiser and Bodendorf, 2012). An online discussion is not fixed in time or space: participants can log on at any time from any internet-enabled computer to seek clarification for issues they encounter in their interest, to discuss topics raised in web, or to initiate new discussions on related topics (DeSanctisa *et al.*, 2003; Chung and Han, 2013). A successful online discussion has the same synergistic effect of group discussion, in which people build on one another's perspectives to gain a deeper understanding of the topics (Gonzalez-Bailon *et al.*, 2010; Prabowo *et al.*, 2008). In recent, a web-based online discussion forum is a vast repository of consumers' knowledge and opinions, and they can face with many issues such as firm behavior or moreover firm crisis through online channel (Lee *et al.*, 2011; Lu *et al.*, 2011). In our research, we are likely to focus on public firms' information through online space such as crisis-related public relation for managerial implication and improvement of social welfare.

Firms frequently must deal with anomalous events, referred to as firm crisis, that induce high levels of uncertainty and are potential crucial factors to viability



(Pearson and Clair, 1998). Consumers today have access to a wide variety of firm crisis-relevant information, including traditional media and new media, such as online news forums, webcasts, and personal home pages (Chang *et al.*, 2013). Specifically, online discussion forums are widely available computer-supported communication technologies that facilitate virtual interaction on the internet.

By supporting extensive online interactions to complement conventional debating, online discussion forums can effectively enrich the process of acquiring, sharing, and exchanging knowledge among users, thereby improving learning performance and outcomes (Leidner and Jarvenpaa, 1995). In online discussion forums such as internet news sites or online communities, we commonly face with online commentaries generated by others. Using these commentaries, online discussion forums can be a many-to-many communication space where users can post a new topic and reply to an existing one (Cunha and Orlikowski, 2008).

Despite the potential impact of firm crisis on consumers' evaluation in online discussion, there are few studies dealing with how consumers process such information and how firms can make strategies to overcome its effects by online communication tools. In actual fact, firms appear ill-prepared to handle crises, and most firms faced with a crisis respond ambivalently (Pearson and Clair, 1998). In addition, crisis research that addresses IS issues is scant, and little is known about the effects of different response strategies resulting from critical psychological motivation variables such as the regulatory focus. Although there is a great deal of research investigating the impact of online discussion forums on organizational change (Cunha and Orlikowski, 2008), intention of participation (Yang *et al.*, 2007), learning (Thomas, 2002), corporate reputation (Clark, 2001; Park and Lee, 2007), knowledge sharing (Lee *et al.*, 2006), and information search behavior (Browne *et al.*, 2007), there has been little systematic assessment of online commentaries' role in framing consumers' firm evaluation and experiences of bias information adoption (Chung and Han, 2013).

In the current research, we lay the foundation for a theoretical framework of firm crisis information processing in online space by focussing on consumers' motivational orientation: self-regulation. Although firm crisis that spread out through online communication channel may also be related to other aspects of a firm's operations (e.g. corporate ability such as financial issue), we focus on social responsibility-related publicity because of its attention and importance (Sen and Bhattacharya, 2001). Specifically, the objective of our research is to provide an understanding of how consumers react to firm crisis information in online space, and we argue that motivational orientation factor – namely, regulatory focus – moderate the processing and impact of firm crisis information on consumer information adoption and evaluation.

This paper proceeds as follows. First, we review the literature on confirmatory information search and regulatory focus theory in the context of interactive online space. Next, we present the differential responses to firm crisis by consumers who are either prevention or promotion orientated in self-regulation, and we show the psychological processes responsible for this effect. We then discuss the implications of the results, the study's limitations, and directions for further research.

2. Theoretical background and research hypotheses

2.1 Confirmatory information search in online space and regulatory focus theory

Online space such as online discussion forum, and messenger can provide an infrastructure supporting effective group communication and discussion. In online

discussion forum, consumers often prefer to attend information about a particular firm that is consistent with their prior attitudes, or evaluation; in contrast, they neglect inconsistent information about the firm (Chung and Han, 2013). Many researchers called this phenomenon confirmatory information search, and they tested such biased information processing in different contexts. In the context of classic dissonance research, consumers experience cognitive dissonance because of the salient opposite aspects between the selected alternative and the rejected alternative (Festinger, 1957; Frey, 1986).

Consumers who are motivated to reduce such dissonance typically select consistent information. The extent to which a consumer prefers supporting over conflicting information is called confirmation bias, which is the typical index of confirmatory information search (Jonas *et al.*, 2001). Recent research has highlighted the importance of studying the effect of different types of motivations on information processing (Jain and Maheswaran, 2000; Agrawal and Maheswaran, 2005), but relatively little attention was paid to the role of psychological factors in confirmatory information search. So, our research examines the type of motivation (consumers' regulatory focus) as a moderator of attitudes toward firm crisis across different information quantities in interactive online space.

For our key psychological factor with online debating participants, regulatory focus theory (Higgins, 1997) offers an insight into motivational differences of informational processors. Regulatory focus posits two motivational orientations: a promotion focus and a prevention focus. Promotion-focussed people emphasize aspirations and achievements, and focus on the presence and absence of positive outcomes. Prevention-focussed people are concerned with responsibilities and safety, and focus on the presence and absence of negative outcomes (Shah *et al.*, 1998; Idson *et al.*, 2000). In this regard, in the context of firm crisis through online discussion, promotion-focussed consumers display greater eagerness in striving toward a positive-framed outcome (inconsistent with firm crisis facts) than moving away from its absence (consistent with firm crisis facts). Inconsistent firm crisis information (e.g. counter-argumentation about firm crisis) demonstrates affirmative opinions in online commentaries in the context of online discussion forums. These arguments contain more promotional and refutative one's viewpoint on present crisis, so these are likely to be seemed more positively than other opinions.

In contrast, prevention-focussed consumers are concerned about a negative-framed outcome (consistent with firm crisis facts) more intensely than a positive-framed outcome. Considered in this framework, we address that these motivational differences can induce different bias information processing and can be a moderator to confirmatory information search, especially in the context of online discussion about firm crisis. The current research complements past work by examining a regulatory focus of consumers that ever considered in past IS researches under which the quantity of firm crisis-relevant information trigger the oppositional firm evaluations. We anticipate that, depending on the quantity of available firm crisis-relevant information in online discussion forums that can be an index of the level of discussion revitalization, company evaluations of participants in online discussion will be negative or positive via consumers' self-regulatory.

2.2 Self-regulation and information quantity for firm crisis information

We propose that quantity of crisis-relevant information in online space can moderate the effect of confirmatory information search. Fischer *et al.* (2008) made clear

psychological processes that underlie the moderating role of information quantity on confirmatory information search. According to their study, when confronted with ten pieces of information, consumers systematically preferred information that is consistent with their prior evaluation, whereas when confronted with only two pieces of information, they strongly preferred inconsistent information. In the two-information condition seems clear, and consumers' information search is guided by the information direction. Thus they selected the inconsistent piece, which helps them to be or to appear unbiased (Pyszczynski and Greenberg, 1987; Kunda, 1990). However, given many pieces of information, the information direction no longer completely differentiates between all available pieces of information. Therefore, consumers switch to the cognitively more demanding assessment of information quality as the crucial selection criterion. In that case, because of a general subjective quality advantage of consistent over inconsistent information, a systematic preference for consistent information emerges (Fischer *et al.*, 2005).

Building upon Fischer's work (2008), we examine how online debating participants' regulatory focus moderates the effect of information quantity on confirmatory information search. We contend that whether firm crisis-relevant information will be discounted in a biased manner or will be weighted heavily depends on the consumer's self-regulation (promotion focussed or prevention focussed), and the quantity of firm crisis-relevant information will moderate these outcomes.

The prevention-focussed consumers are likely to focus on negative-framed aspects of the initial firm crisis-relevant information set. They concentrate on avoiding mismatches with their goals, they are in a state of vigilance that entails considering more restrictively only clearly appropriate subsequent information about firm crisis. Further, as subsequent information quantity increases, they focus more on the consistency with firm crisis information, and this effect will be expressed by a lowering of attitude toward the firm that is placed in crisis. In other words, for prevention-focussed consumers, increasing the quantity of information on firm crisis is inflated with the negative-framed aspects of information; that is, the unfavorable effect of information quantity is may salient in this condition.

On the other hand, because promotion-focussed consumers strive for matches to their goals, they have been shown to be in a state of eagerness to include as many options as possible that may help them achieve their goals. Also, promotion-focussed consumers have been found to generate more dimensions shared by diverse items (Crowe and Higgins, 1997) and to engage in more exploratory processing, resulting in more creative ideas (Friedman and Förster, 2001), and they generate many hypotheses about the ambiguous stimuli (Liberman *et al.*, 2001). So, promotion-focussed consumers are likely to focus on inconsistent aspects of firm crisis information set to accomplish the ideal state. Moreover, when they encounter much firm crisis-relevant information, positive-framed aspects of the information (inconsistent with firm crisis facts) are more salient for them. In this condition, increasing the quantity of information about firm crisis is processed in a favorable direction via an inconsistent firm crisis orientated processing route. Thus, we should observe different attitudinal patterns between prevention-focussed consumers and promotion-focussed consumers. Stated formally:

- H1.* Prevention-focussed online debating participants will exhibit a negative confirmatory information search behavior in response to much firm crisis information as compared to little firm crisis information.

H2. Promotion-focussed online debating participants will exhibit a positive confirmatory information search behavior in response to much information as compared to little information in online debating.

2.3 *The interaction of prior evaluation on the firm and regulatory focus*

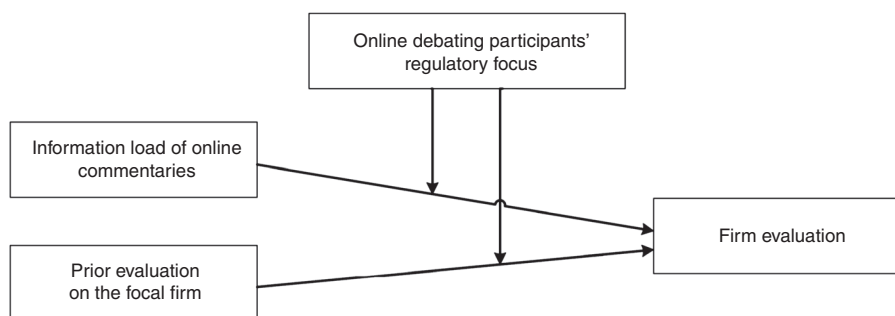
Consumers tend to selectively seek and assign greater weight to fact that is consistent with their expectations (Darley and Gross, 1983). A crisis setting, which provides more realistic situation, should consider consumers' prior evaluation on the firm to test the robustness and validity of the effect of quantity of crisis-relevant information. Researchers suggested that prevention-focussed consumers show a greater preference for status quo than promotion-focussed consumers (Chernev, 2004; Jain *et al.*, 2007). More, Lee and Aaker (2004) found that gain-framed appeals were more persuasive for promotion-focussed consumers, but loss-framed appeals were more effective for prevention-focussed consumers. More to the immediate point, we argue that prior evaluation on the firm acts on the quantity of crisis-relevant information and induces either ceiling effect or floor effect depending on regulatory focus.

Prevention-focussed consumers promote a preference for stability and the maintenance of the status quo rather than for risking a change to a better situation (Lieberman *et al.*, 2001). Therefore, in low prior evaluation on the firm, prevention-focussed consumers' response strategy (i.e. support argumentation) are not likely to trigger prominently as increasing the quantity of crisis-relevant information. Because of their loss aversion and high obligation level, low prior evaluation creates a floor effect in the sense that additional crisis-relevant information cannot decrease an already low negative evaluation. Thus, it could be interpreted in way that the selective processing on crisis-relevant information set only salient in the high prior evaluation for prevention-focussed consumers.

By contrast, promotion-focussed consumers endorse multiple alternatives and place lower weight on prior evaluation in making future decisions (Jain *et al.*, 2007). So, promotion-focussed consumers are likely to display a lower tendency to allow their evaluation of firm crisis to bias the prior evaluation. If they have positive prior evaluation on the firm, their response to crisis as increasing crisis-relevant information (i.e. counter-argumentation) may be blocked in terms of ceiling effect in the sense that additional crisis-relevant information cannot increase an already high positive evaluation. Hence, promotion-focussed consumers may have the selective processing on crisis-relevant information set in earlier experiment effectively in the low prior evaluation. Figure 1 captures the relationship among online debating participants' regulatory focus, the quantity of firm crisis-relevant online commentaries, and participants' prior evaluation on the firm. In sum, we predict:

H3. For prevention-focussed online debating participants, their unfavorable evaluation as firm crisis-relevant information increases will be salient under the high prior evaluation on the firm.

H4. For promotion-focussed online debating participants, their favorable evaluation as firm crisis-relevant information increases will be salient under the low prior evaluation on the firm.



Note: Consumer response to firm crisis information in online space

Figure 1.
Proposed conceptual framework

3. Research design and method

3.1 Participants and design

In total, 165 undergraduate students participated for partial course credit in a two (prior attitudes toward a firm: unfavorable vs favorable) by two (information load: two commentaries vs ten commentaries) between-subjects design. Regulatory focus was measured. Their average age is 21.4 and 47.3 percent in male. Most of them had participated in online discussion forum such as beliefnet.com or NY Times.com (98 percent), and majored in business administration (82 percent). Participants were randomly assigned to each of the cells in the factorial design, and they faced with different experimental online discussion forums in a single session (i.e. $N_{\text{unfavorable prior attitude with two commentaries}} = 42$, $N_{\text{unfavorable prior attitude with ten commentaries}} = 41$, $N_{\text{favorable prior attitude with two commentaries}} = 41$, $N_{\text{favorable prior attitude with ten commentaries}} = 41$).

3.2 Procedure and measures

First, before exposing company crisis news, participants were primed either unfavorable or favorable prior attitudes on a target company. To manipulate prior attitudes, we first provided participants with a brief description of a fictitious fashion-house company (e.g. X Apparel) with regard to both its operational ability and social responsibility. The description of the company contains slightly positive aspects of company ability such as active business operation and promotion for both positive and negative prior attitude conditions, but only the facets of social responsibility were different depending on the valence of prior attitudes. For example, under low (high) prior attitudes, a company was introduced with a low (high) level of social responsibility investment including economic profits and human resources. After participants reading the information about the company, they evaluated the company on three seven-point scales anchored by "favorable/unfavorable," "good/bad," and "desirable/undesirable" (Cronbach's $\alpha = 0.89$), which will be used as participants' prior attitudes before receiving firm crisis information.

The additional information dealing with firm crisis can be adapted from consumers' online commentaries in online news forums. In a pre-test, 40 online commentaries dealing with the matter of firm crisis were developed (half of the commentaries were consistent with firm crisis, and the other half of the commentaries were inconsistent with firm crisis). The length of these commentaries on firm crisis was same as about 50 words. In the pre-test, we calculated the argument strength of an online commentaries with a nine-point scale (where $-4 =$ extremely opposite, $0 =$ neutral, and

4 = extremely agree) from 50 participants, and among same strength commentaries, finally five pieces of firm crisis-consistent information ($M = 2.31$, $SD < 1$), and five pieces of firm crisis-inconsistent information ($M = -2.30$, $SD < 1$) were selected.

After participants had read the firm crisis information, participants were told to read either two or ten pieces of additional information (online commentaries) concerning the firm crisis. Irrespective of the participants' previous decision, half of the pieces of information were consistent and half were inconsistent with the firm crisis facts. An example of a piece of information implying that someone supported firm crisis situations is as follows: "I think an essential condition to sustainable growth is morality, not only producing good products. X Apparel disappointed consumers and lost their trust." An example assuming the refuted opinion toward the firm crisis is as follows: "I think that it is excessive that one of the best companies was attacked due to labor practices in the production line of a third-world country. X Apparel will overcome this crisis in the near future."

As a dependent measure, participants indicated their overall evaluations of the target firm. Participants evaluated the company according to three standards (favorable/unfavorable, good/bad, and desirable/undesirable) on a seven-point scale ranging from 1 ("not at all likely") to 7 ("very likely") (Cronbach's $\alpha = 0.85$). Next, they listed all the thoughts that occurred to them while reading the survey material (Petty and Cacioppo, 1977; Chen *et al.*, 1996). Two judges, blind to the hypotheses, coded the response into four categories: positive thoughts (e.g. "Such negative news will not affect X Apparel"), negative thoughts (e.g. "X Apparel will loss business because of this crisis"), other thoughts about the news (e.g. "Children working in these countries should be protected"), and other thoughts were not related to the news (e.g. "I never heard about X Apparel"). The agreement between the two judges was 96 percent and disagreements were resolved through discussion. For each condition, two proportion scores were created by computing the proportion of positive thoughts and negative thoughts to the total number of thoughts. We created a net-valenced index by subtracting positive thoughts from negative thoughts.

Participants also indicated their perceptions about the amount of information (i.e. information load) on two scales items anchored by "few/many" and "scarce/plentiful" (Cronbach's $\alpha = 0.88$). We also measured the extent to which participants were involved and put effort into the task, which were averaged to form an involvement index (Cronbach's $\alpha = 0.89$).

The chronic regulatory focus items (named "regulatory focus questionnaire") was measured with seven-point scale items (where 1 = not at all; 7 = very much) to classify participant's chronic regulatory foci (Lockwood *et al.*, 2002). It consisted of nine prevention items (e.g. "I am more oriented toward preventing losses than I am toward achieving gains") and nine promotion items (e.g. "I typically focus on the success I hope to achieve in the future"). Participants' ratings along prevention items and promotion items (reverse coded) were averaged to form an overall index of the chronic regulatory focus ($\alpha = 0.71$). Finally, participants were thanked and debriefed. They learned that the company was fictitious, and the information they read about the company and the commentaries was prepared only for research purposes.

4. Analysis and results

4.1 Manipulation check

As expected, an ANOVA on the prior attitudes revealed significant differences between unfavorable and favorable prior attitudes conditions ($M_s = 3.09$ vs 5.44, respectively;

$F(1,164) = 358.62, p < 0.001$). Also, an ANOVA on the information loads index revealed significant differences between the two commentaries condition and the ten commentaries conditions ($M_s = 1.76$ vs 3.56 , respectively; $F(1,164) = 126.17, p < 0.001$). In addition, task involvement did not vary as a function of number of commentaries, regulatory focus, and prior attitudes (all $F < 1, p$'s > 0.1). These results confirmed that our manipulations of prior attitudes and information load were successful.

4.2 Hypothesis testing

A regression was performed on company evaluations (Cronbach's $\alpha = 0.82$) with independent variables: first, regulatory focus (i.e. large value of this measure means more prevention focussed); second, a dummy variable for either unfavorable or favorable prior attitudes toward a company; third, a dummy variable for information loads (either two commentaries or ten commentaries); and finally, their interaction terms. The results only revealed a significant main effect of regulatory focus ($\beta = -0.28, t = -2.17, p < 0.05$), and a significant interaction between prior attitudes and information loads ($\beta = -0.31, t = -2.41, p < 0.05$).

To explore the interaction, we examined the slopes of regulatory focus at each condition. Under unfavorable prior attitudes, the slope of regulatory focus was significant and negative when the information load was high ($\beta = -0.40, t = -2.68, p < 0.05$), while the slope of regulatory focus was insignificant when the information load was low. However, when prior attitude is favorable, the slope of regulatory focus was insignificant both high and low information load.

To more closely examine our hypotheses, we conduct a spotlight analysis at one standard deviation above the mean of regulatory focus at each prior attitude level. The results showed that, when prior attitude is unfavorable, prevention-focussed participants have no differences of company evaluation when the information load was high (vs low; $\beta = 0.13, t = 0.81, p > 0.10$), but when prior attitude is favorable, prevention-focussed participants expressed lower company evaluation when the information load was high (vs low; $\beta = -0.31, t = -2.01, p < 0.05$). A similar spotlight analysis at one standard deviation below the mean of regulatory focus showed that, when prior attitude is unfavorable, promotion-focussed participants expressed higher company evaluation when the information load was high (vs low; $\beta = 0.33, t = 2.31, p < 0.05$), but when prior attitude is favorable, promotion-focussed participants have no differences of company evaluation when the information load was high (vs low; $\beta = 0.03, t = 0.18, p > 0.10$).

What we argue is that when prior attitudes and regulatory focus are in the same direction, consistent information dominates, but when prior evaluations and regulatory focus are inconsistent, regulatory focus dominates. To clarify these moderating effects, we conducted additional analyses by creating two dichotomous regulatory focus variable. Following Aiken and West (1991) guidelines, the low and high levels of the independent variables were one standard deviation below and above their means. Consistent with hypotheses, in Figure 2, prevention-focussed online debating participants have a negative confirmatory information search behavior in response to high information load as compared to low information load under their high prior evaluation on the focal firm. However, promotion-focussed online debating participants have a positive confirmatory information search behavior in response to high information load as compared to low information load when they have low prior evaluation on the focal firm. Thus, above results are consistent with our hypotheses.

4.3 Mediation analysis

We predict that the net cognitive responses (positive thoughts-negative thoughts) only affect company evaluation when prior attitudes and regulatory focus match (i.e. promotion orientation with unfavorable prior attitude, and prevention orientation with favorable prior attitude). Following with Muller *et al.* (2005) recommendations, a series of regression analyses was conducted at each level of prior attitude (unfavorable vs favorable).

When participant's prior attitude toward a company is unfavorable, Table I presents the regression models estimate Equations 1 through 3 with these variables. The results from Equations 1 and 2 show that there are only main effects of both the information loads and regulatory focus on company evaluations, but no interaction effect. More specific, we calculated the simple effects of the number of commentaries on the net cognitive response at different levels of the regulatory focus (for high REGU (+1 SD, i.e. prevention focussed): $-0.261 + 0.103 \times (0.615[1]) = -0.198$; for low REGU (-1 SD,

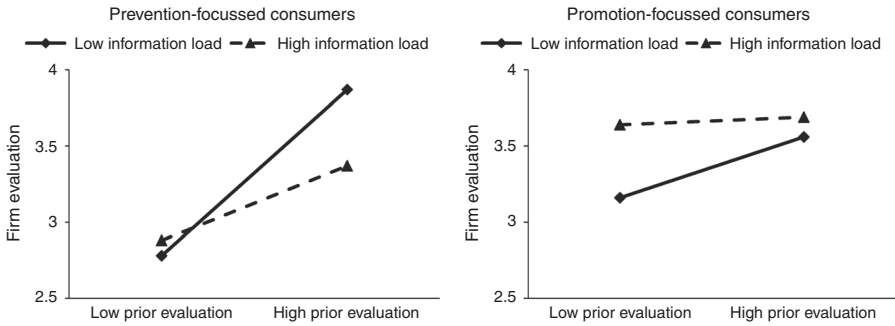


Figure 2. Graphical patterns of firm evaluation in online debating

Predictors	Equation 1 (criterion EVA)		Equation 2 (criterion NET)		Equation 3 (criterion EVA)	
	β	<i>t</i>	β	<i>t</i>	β	<i>t</i>
<i>Under unfavorable prior attitude</i>						
X: INFO	0.257	2.468*	-0.261	-2.688**	0.188	1.725
MO: REGU	-0.342	-3.233**	0.489	4.974***	-0.206	-1.538
XMO: INFOREGU	-0.059	-0.566	0.103	1.053	-0.032	-0.305
ME: NET					-0.258	-2.028**
MEMO: NETREGU					0.028	0.247
Predictors	Equation 4 (criterion EVA)		Equation 5 (criterion NET)		Equation 6 (criterion EVA)	
	β	<i>t</i>	β	<i>t</i>	β	<i>t</i>
<i>Under favorable prior attitude</i>						
X: INFO	-0.128	-1.125	0.180	1.701	-0.152	-1.293
MO: REGU	-0.117	-1.028	0.366	3.468**	-0.181	-1.346
XMO: INFOREGU	-0.032	-0.290	0.090	0.859	-0.058	-0.493
ME: NET					0.085	0.691
MEMO: NETREGU					0.081	0.637

Table I.

Least squares regression results for mediated moderation

Notes: EVA, company evaluations; REGU, regulatory focus; INFO, information loads; MO, moderator variable; NET, net cognitive responses (negative thoughts-positive thoughts); ME, mediator variable. Significance: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

i.e. promotion focussed): $-0.261 + 0.103 \times (-0.615) = -0.324$). The estimation of Equation 3 reveals a significant effect of the net cognitive response on company evaluations ($\beta = -0.258, t = -2.028, p < 0.01$). We also calculated the simple effects of net cognitive response index on company evaluations at different levels of regulatory focus (for high REGU (+1 SD, i.e. prevention focussed): $-0.258 + 0.028 \times (0.615) = -0.241$; for low REGU (-1 SD, i.e. promotion focussed): $-0.258 + 0.028 \times (-0.615) = -0.275$). Taking the product of the two simple effects for the two values of regulatory focus, we get the total indirect effects through the net cognitive response for each of these two values under unfavorable prior evaluation condition (for high REGU (+1 SD, i.e. prevention focussed): $-0.198 \times -0.241 = -0.048$; for low REGU (-1 SD, i.e. promotion focussed): $-0.324 \times -0.275 = 0.090$). Thus, under unfavorable prior evaluation condition, net cognitive response more effectively mediate the effect of information load on company evaluation for promotion-focussed (vs prevention-focussed) consumers.

On the other hand, when participant's prior attitude toward a company is favorable, Table I presents the regression models estimate Equations 4 through 6 with these variables. The results from Equation 5 show that the main effect of regulatory focus on net cognitive response index is significant ($\beta = 0.366, t = 3.468, p < 0.01$). Moreover, we calculated the simple effects of the information loads on the net cognitive response at different levels of the regulatory focus (for high REGU (+1 SD, i.e. prevention focussed): $0.180 + 0.090 \times (0.615) = 0.235$; for low REGU (-1 SD, i.e. promotion focussed): $0.180 + 0.090 \times (-0.615) = 0.124$). We also calculated the simple effects of net cognitive response index on company evaluations at different levels of regulatory focus from Equation 6 (for high REGU (+1 SD, i.e. prevention focussed): $0.085 + 0.081 \times (0.615) = 0.135$; for low REGU (-1 SD, i.e. promotion focussed): $0.085 + 0.081 \times (-0.615) = 0.035$). Finally, taking the product of the two simple effects for the two values of regulatory focus, we get the total indirect effects through the net cognitive response for each of these two values (for high REGU (+1 SD, i.e. prevention focussed): $0.235 \times 0.135 = 0.032$; for low REGU (-1 SD, i.e. promotion focussed): $0.124 \times 0.035 = 0.004$). We thus confirm that when prior attitude is favorable, net cognitive response is more likely to mediate the effect of the information loads on company evaluation for prevention-focussed consumers compared to promotion-focussed consumers.

With three-way ANOVA, the pattern and mean for each cell are depicted in Figure 3. Specifically, for prevention-focussed consumers, an ANOVA on the impact of crisis-consistent pieces of information revealed a significant positive effect of

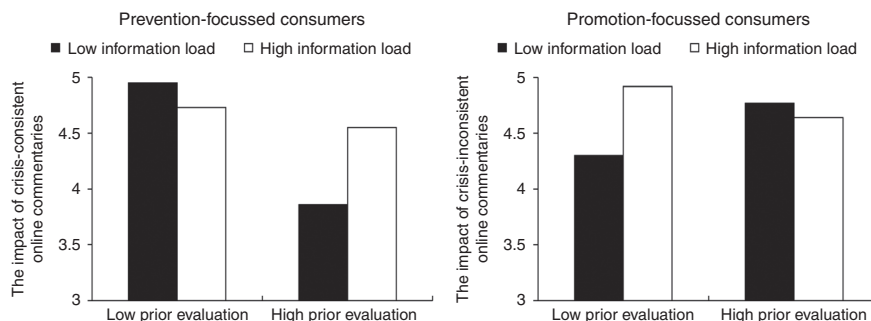


Figure 3.
The influence of crisis-consistent vs inconsistent information on online commentaries

information quantity under the high prior evaluation condition ($M_s = 3.86$ vs 4.55 , respectively; $F(1,41) = 3.208$, $p < 0.1$). In the low prior evaluation condition, however, there is no difference for the impact of crisis-consistent information ($M_s = 4.95$ vs 4.73 , respectively; $F(1,41) < 1$). An ANOVA revealed no significant differences of the impact of crisis-inconsistent information for either the high ($F < 1$) or low ($p > 0.1$) prior evaluation condition depending on the quantity of crisis-relevant information. For promotion-focussed consumers, an ANOVA on the impact of crisis-inconsistent pieces of information revealed a significant positive effect of information quantity under the low prior evaluation condition ($M_s = 4.30$ vs 4.92 , respectively; $F(1,40) = 3.218$, $p < 0.1$), but no differences under the high prior evaluation condition ($M_s = 4.77$ vs 4.64 , respectively; $F(1,40) < 1$). Further, the impact of crisis-consistent information was not influenced by the quantity of information for either the high ($F < 1$) or low ($F < 1$) prior evaluation condition.

In sum, we suggest that the interactive effect of regulatory focus and the information loads on company evaluations was moderated by consumers' prior attitude toward a company. Specifically, when the valence of prior attitude and regulatory focus match, net cognitive responses by the information loads affect company evaluation. However, when prior attitude did not match with consumers' regulatory orientation, both company evaluation and net cognitive responses did not affect by the number of commentaries. Our results suggest that prior attitude is a boundary condition for selective exposure in negative publicity context, and the fit between prior evaluation and regulatory focus can be an important condition for active selective exposure phenomenon.

5. Discussion and implications

Our research contributes to the literature on public relation crises, confirmatory information search and regulatory focus theory. In experimental analyses, we found that consumers' regulatory focus is an important moderator of consumer response to firm crisis information. Specifically, the response patterns of prevention- and promotion-focussed consumers are very different depending on the quantity of firm crisis-relevant information, and to their underlying psychological processes. Prevention-focussed consumers when they have high prior evaluation on the firm exhibited an unfavorable evaluation in response to increasing the quantity of crisis-relevant information via focussing on crisis-consistent commentaries. Promotion-focussed consumers, in contrast, when they have low prior evaluation on the firm had a favorable evaluation on the quantity of crisis-relevant information because they generally focus on crisis-inconsistent commentaries.

Findings in experimental system are also in alignment with moderating effects of information quantities stated in Fischer *et al.* (2008) who posit that the confirmatory information search of consumer can be affected by information quantities during their decision processes. To compare our results to above study, specifically, we found that above confirmatory information search phenomenon can trigger differently depending on the consumers' regulatory focus, and presented a boundary condition; prior evaluation on target firm.

Also, in active online spaces, tasks with different quantities of evaluation-relevant information are important to consumers in these days. Comparing to traditional mass media, in online media dealing with firm crisis such as online news forums, consumers can fill up their available pieces of information and no more restricted information

quantity and associated information evaluation. Expanding previous studies on online discussion (Chang *et al.*, 2013; Kaiser and Bodendorf, 2012, Lee *et al.*, 2006; Prabowo *et al.*, 2008), the present studies suggest online-specific factor, the quantity of firm crisis-relevant information, by inspecting its moderating effects on consumers' regulatory focus.

From a pragmatic viewpoint, in new media such as online news, consumers' opinions dealing with firm crisis facts (e.g. online commentaries) can influence others' evaluation on the firm, and be a fitting instrument for the context of confirmatory information search. The results of the study indicate that a firm has little to lose by taking an affirmative public atmosphere through media. Inconsistent information on firm crisis in market is likely to redress consumers' lower attitude, but consistent information on firm crisis is likely to cause consumers' disappointment and suspicion. Marketers may have help by considering different filtering responses of firm crisis including consistent or inconsistent with crisis facts depending on consumers' regulatory focus.

While this study is somewhat limited by the wide arrange of phenomena addressed, it does provide an impetus for further investigations of each of the firm crises characterizing either corporate ability or corporate social responsibility. Only firm crisis about negative aspects of firm's corporate social responsibility was used as a stimulus in a study that employed student participants. To solve this, we checked the neutrality of stimuli in experiments and the valence of stimuli did not affect our dependent variables. Using various crisis stimuli within this study would have boosted our confidence in the findings. The use of a fictitious firm is favorable from an internal validity perspective. However, focussing on university student sample does not compromise the generalizability and external validity of the results. Rather, consumers often face with several facts about firm crisis in real life. Further understanding of the psychological processes that underlie consumers' reactions to real companies should help companies to manage their crisis more efficiently and effectively to achieve both goals. Future research also should address the question under conditions does framing lead to a favorable evaluation of firm crisis dealing with corporate ability or an unfavorable evaluation of firm crisis dealing with corporate social responsibility.

Note

1. Standard deviation of regulatory focus measure is 0.615.

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