An empirical investigation of electronic word-of-mouth: Informational motive and corporate response strategy

Young Lyoul Lee [a,1], Seokwoo Song [b,*]

[a] Growth and Innovation Center, Growing Business Group, Korean Telecommunication, Seoul, Republic of Korea
[b] Weber State University, 2750 N. University Park Blvd., Layton, UT 84041, United States

ABSTRACT

The proliferation of the Internet has given birth to a number of complaint web sites where dissatisfied and frustrated consumers can easily articulate their opinions and comments on products, services, or companies. Little attention, however, has been paid to the influence of online complaints on potential consumers' behaviors. This study attempts to provide the understanding of causal attribution process in the online complaining behaviors. The results showed that informational factors, such as *vividness* and *consensus*, facilitated consumers' attribution to companies' responsibility for the negative events, and subsequently led to changing their evaluation of the companies. In addition, we found that corporate response strategies to online complaints should be different from the conventional response strategies.

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1. Introduction

The Internet has "created new public spheres of debate, discussion, and information so that intellectuals who want to engage the public, to be where people are at, and who thus want to intervene in the public affairs of their society should make use of these new communication technologies and develop new techno-politics" (Kellner, 1998). The proliferation of the Internet has given birth to a number of complaint web sites where dissatisfied consumers can accuse companies of various misdeeds (e.g., www.cnet.com, www.complaints.com, and www.epinions.com). Through these web sites, dissatisfied and frustrated consumers are easily able to articulate their opinions and comments on goods, services, or companies. Most companies recognize that online complaints could damage their company reputations. The companies, however, are not likely to respond to these complaints in a timely manner (Homburg & Fürst, 2007), since they are afraid that a response would escalate the issue (Middleberg, 1996).

Online complaint sites enable consumers to discuss matters of common concern, such as seeking other consumers' assessment of products and services and sharing the opinions and experiences with other consumers. Thus, online complaint messages against a company may be easily and rapidly distributed to a huge volume of potential consumers (Hennig-Thurau & Walsh, 2003), which in turn lead to damage the company reputation. Previous studies have examined the effect of negative word-of-mouth on consumers' cognitive behaviors, including brand evaluation (Laczniak, DeCarlo, & Ramaswami, 2001; Mizerski, 1982), dissatisfaction (Richins, 1983), consumers' emotions (Wetzer, Zeelenberg, & Pieters, 2007), recruitment advertising (Van Hoye & Lievens, 2007), and message processing (Smith & Vogt, 1995). In addition, researchers in the field of consumer complaint behavior have shown that consumer complaints are affected by individual characteristics (Richins, 1983; Singh, 1990), consumer's perceptions of the sources (Conlon & Murray, 1996), and consumer's experiences with products or services (Blodgett, Wakefield, & Barnes, 1995; Day, 1980). While much attention has been directed to antecedents and outcomes of consumer complaint behaviors or word-of-mouth (de Matos & Rossi, 2008; Sweeney, Soutar, & Mazzarol, 2008), few studies have attempted to investigate the impact of negative word-of-mouth in the online context (Hennig-Thurau & Walsh, 2003).

To understand the motives of consumer complaint behaviors, researchers (e.g., Laczniak et al., 2001; Richins, 1983) have examined the information dimensions that were used to describe causal inferences in attribution theory (Kelley, 1967). Consumers tend to believe that the others share the same preferences and consumption behaviors (Folkes, 1988). Thus, *consensus* that, as one major type of information dimension, is defined as other consumers' responses toward a product or service (Folkes, 1988; Hilton & Jaspars, 1987) may be an interesting cue to understand the complaining behaviors in the online context. The other critical factor influencing online complaining behaviors may be "information *vividness*." Researchers stated that vividly presented information is persuasive to consumers' attitudinal judgment (Hayne, Pollard, &

* Corresponding author. Tel.: +1 (801) 395 3455; fax: +1 (801) 395 3525.
  E-mail addresses: younglee@kt.co.kr (Y.L. Lee), seokwoosong@weber.edu (S. Song).
  [1] Tel.: +86 82 2 751 9705.

Rice, 2003; Kim, Kardes, & Herr, 1991; Nisbett & Ross, 1980). This motivates our first research question for this study: *How do these key informational factors (i.e., consensus and vividness) influence the perception of observers exposed to online complaints on a company?*

In addition, as addressed in the previous studies (Casarez, 2002; Clark, 2001; Homburg & Fürst, 2007) the proactive and timely response to online complaints may be critical to the companies, in order to avoid unnecessary attacks from other consumers. Thus, appropriate company response strategies to online complaints are necessary to protect or improve the company's reputation (Davidow, 2003). Little attention, however, has been directed at examining the influence of corporate response strategies to online complaints. Thus, the second research question we examine for this study is: *How do a company's response strategies affect the perception of observers on attribution as well as the company reputation?*

This study contributes to the literature in three ways. First, this study proposes a model that facilitates the understanding of causal attribution in the online context by examining the complaining message as well as the responses from both consumers and companies. Second, this study explores the primary response strategies of a company to protect its reputation from online complaints. Third, this study provides a way in furthering the empirical test on the relationship between online complaints and corporate responses from an observer's perspective.

The paper is organized as follows. First, we present the overview of prior studies. Next, we present two research models, corresponding to the two research questions identified above. This is followed by a list of hypotheses based upon the research models. Then, we describe our research methodology. Subsequently, we present the results and discuss our findings. We conclude the paper with a discussion of the limitations and the implications for future studies.

2. Research background

2.1. Consumers in the online complaint sites

Previous studies have shown that dissatisfied consumers take one or more of three behaviors: (1) to complain directly to the product or service provider, (2) to engage in negative word-of-mouth or go to third parties such as Better Business Bureau, court actions, and newspapers, and/or (3) to switch to an alternative provider (Bechwati & Morrin, 2003; Blodgett, Granbois, & Walters, 1993; Hirschman, 1970; Richins, 1983; Singh, 1990; Smith, Bolton, & Wagner, 1999). Researchers have found that negative word-of-mouth has strong influences on consumers' attitudes and behaviors (Haywood, 1989; Laczniak et al., 2001; Richins, 1983). Negative word-of-mouth refers to interpersonal communication regarding companies, products, and/or services that "denigrates the object of communication" (Laczniak et al., 2001: p. 58). While, in the offline setting, only a limited number of consumers may be exposed to negative word-of-mouth, online complaint sites provide an opportunity for a huge number of consumers to easily access to and spread negative information about companies, products, or services.

In this study, we identify three groups of consumers in the online complaint sites: (1) *complainers* who post a complaint message, (2) *repliers* who articulate their own opinion on the message, and (3) *observers* who only read the complaint messages or replies. Previous studies have asserted that the understanding of distinct consumer styles helps companies improve effectiveness with which they may handle complaints (Dart & Freeman, 1994; Singh, 1990). With the content analysis of an online complaint site (see Section 4), we found that most complainers have already taken actions directly to the product or service providers before posting complaints in the sites. Complainers are likely to utilize the sites to compensate their dissatisfaction with products or services by actively engaging in negative word-of-mouth, whereas repliers express strong "voice" by disclosing their own experiences with companies, products, or services. Repliers may have their own experiences of posting complaints or merely express their opinions about a specific complaint.

Observers may assess the concerned companies, products, or services by perusing online messages. Like "mass audiences," they autonomously act and have little or no immediate knowledge of the others, but they keep watching word-of-mouth from other communicators in the sites (Laczniak et al., 2001; Webster, 1998). Most of them in the online complaint sites do not take action in any given situation. However, once they recognize a certain issue as their own problem, they are most likely to become active communicators (Grunig, 1978), and to spread out negative information.

2.2. Attribution and company evaluation as outcomes

People are seeking the causes of a certain event in a variety of domains (Hilton & Jaspars, 1987; Weiner, Perry, & Magnusson, 1988). According to attribution theory, responsibility can be used as a basis of attitudinal judgment on the causes, which help understand "how people evaluate, sanction, and try to control each other's conduct" (Schlenker, Britt, Pennington, Murphy, & Doherty, 1994: p. 632). Further, attribution of responsibility influences attitudes toward interpersonal evaluation and emotional arousal (Brickman et al., 1982; Fiske & Taylor, 1984; Weiner, 1985), particularly of companies, products, or services in the online complaint context. In this study, attribution is defined as the cognition that an observer generates to infer a company's responsibility for the causes of online complaints (Laczniak et al., 2001).

Consumers' knowledge about a company is conceptualized alternatively as corporate reputation, corporate image, and corporate associations (Sen & Bhattacharya, 2001). Corporate reputation represents the sum of beliefs, attitudes, and impressions that consumers have of the company, which can be formed by consumers' interpretation of informational signals from firms, media, and other monitors (Barich & Kotler, 1991). Consumers' evaluations of a company are more sensitive to negative information of corporate responsibility than positive information (Laczniak et al., 2001).

3. Research model

Observers, potential consumers, are a majority of users in the online complaint sites. Their existence and perception of companies can cause critical differences from the conventional management of complaints that focused on the relationship only between a complainer and companies. The perception of potential consumers toward a company may be a critical source for its marketing activities. Readers in the online complaint sites interpret and perceive the complaints for their own needs by examining message contents (Swanson, 1987). By scanning the complaint messages, readers in the online sites try to identify who is responsible for the problem and/or what causes the problem, which may, in turn, affect their perception of the concerned companies.

In the first research model, we examine the impact of message characteristics on observers' perception of a product or service provider. In the context of consumer complaint behavior, when a product or service fails, consumers look for a reason as to why this occurs. According to attribution theory, consumers' behaviors are influenced by their causal inferences (Folkes, 1984). One major causal property is *locus*: who is accountable for the cause? When the cause of the product failure is located in a company, customers ask the company to make amends. If the company does not

properly respond, customers are likely to express anger to the company (Folkes, 1984). Likewise, when observers read the complaint messages, they may determine who is responsible for the problem. In addition, research in theory of reasoned action (Ajzen & Fishbein, 1980) has argued that normative information from reference groups or strangers can influence the behaviors of the recipients (Lapinski & Rimal, 2005). Thus, we propose that observers may assess the complaint messages by scanning other consumers' opinions, which is measured by *consensus*, as well as by exploring the content of the message, which is measured by *vividness* (Fig. 1).

3.1. Message characteristics

Consensus in messages: When people encounter the negative information of products or services, they often consider other individuals' reactions to the information prior to judging themselves what the causes of the problem are (Lapinski & Rimal, 2005). If most people behave in a similar manner under a certain situation, individual's behavior is likely to be attributed to situational factors (Richins, 1983). *Consensus* in communication may provide a great impact on individual's causal judgments when the communication involves negative information (Conway & DiFazio, 1990). Further, researchers (e.g., Folkes & Kotsos, 1986) found that high *consensus* was associated with attribution to the products or services.

Previous studies of negative word-of-mouth communication explored the impact of *consensus* on consumers' evaluation of brands or companies (Laczniak et al., 2001; Richins, 1983; Smith & Vogt, 1995). Consumers exposed to negative word-of-mouth communication with high *consensus* were reacting significantly less favorable to a company's advertisement (Smith & Vogt, 1995). Further, consumers receiving same negative word-of-mouth information from various sources are most likely to accuse the product or organization of dissatisfaction (Richins, 1984). In addition, Laczniak et al. (2001) found that, high *consensus* paired with high levels of *distinctiveness* and *consistency* leads consumers to generate significantly strong brand attributions.

Vividness in message: According to Nisbett and Ross (1980, p. 45), *vividness* refers to information capacity to "attract and hold attention to excite imagination." Information is vivid if it contains a degree of "emotionally interesting, concrete and imagery-provoking, and/or proximate in a sensory, temporal, spatial way" (1980, p. 45). Previous research has shown that *vivid* information has more influence on consumers' attitudinal judgment than non-vivid information (Kim et al., 1991). Further, the effect of *vividness* on attitudinal judgment becomes much stronger when available information is sufficient and delivered in an elaborative manner (Kim et al., 1991; McGill & Anand, 1989). Vividly presented information is more persuasive when the information is personally
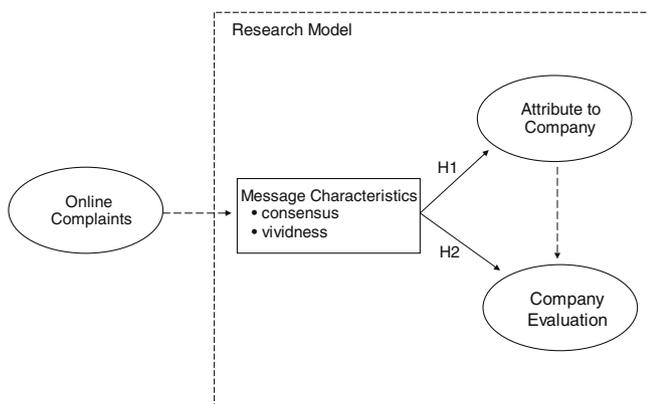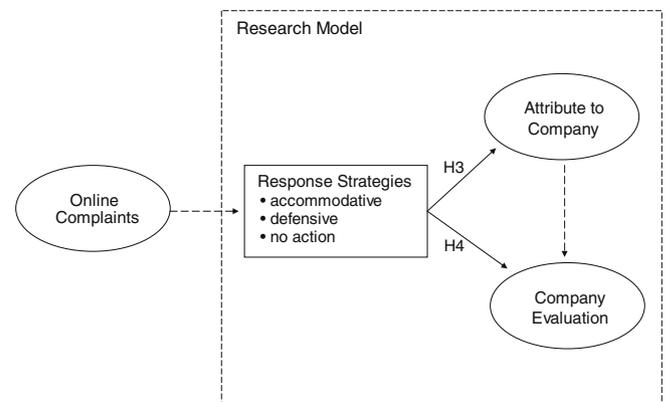

Fig. 2. Response strategies, research model, and hypotheses.

relevant and produces emotionally arousing responses (Taylor & Thompson, 1982; Taylor & Wood, 1983). In addition, Block and Keller (1997) found that *vivid* messages have a greater impact on attitudinal judgment of participants with high self-efficacy. In the preliminary content analysis (see Section 4), we found that most of online complaints have been presented in an elaborative fashion in order to persuade the readers. Thus, we expect that vividly presented information has more impact on the perception of the consumers exposed to online complaints than non-vivid information[2].

Therefore, we hypothesized,

H1: The higher the level of observed support for the complainer in terms of *consensus* and *vividness*, the more likely observers are to conclude that the company is at fault.
H2: The higher the level of observed support for the complainer in terms of *consensus* and *vividness*, the more likely observers are to negatively evaluate the company.

In the second research model, we explore the impact of response strategies on observers' perception of a product or service provider. Previous studies of public relations have proposed different types of corporate response strategies (Benoit, 1995; Coombs, 1999; Marcus & Goodman, 1991). Unintended events, such as consumer boycott and service complaints, which are most common in the online complaint sites, directly or potentially threaten a company's reputation (Skinner & Mersham, 2002). Thus, online response strategies may have distinct influence on consumers' evaluation of a company, comparing to the conventional response strategies (Fig. 2).

3.2. Corporate response strategies

By engaging in causal process (e.g., Weiner, 2000), consumers who dissatisfied with products or services may negatively evaluate the company. A company's proactive actions, such as apology, compensation, or corrective actions, on the negative events, however, helped restore the company's positive image (Griffin, Babin, & Darden, 1992). The response strategies may be ranging from defensive (putting organizational interest first) to accommodative (putting complainers' concerns first) (Coombs, 1999; Marcus & Goodman, 1991). Marcus and Goodman (1991) adopted the defensive-accommodative continuum to manage corporate crises such as accident, scandals, and product safety incidents.

In this study, we incorporate "no action" strategy into the existing defensive-accommodative strategies: defensive, no action, and

Fig. 1. Message characteristics, research model, and hypotheses.

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[2] To manipulate *vividness*, we refer to the previous studies (Fortin & Dholakia, 2005; Steuer, 1992), where *vividness* was defined as the breadth (colors, graphics, etc.) and depth (quality of the presentation) of the message.

accommodative. Accommodative strategies encompass any form of apology, compensation, and/or corrective action. Thus, the companies with this approach are mostly likely to publicly accept their responsibility for the problems and to take possible preventive actions accordingly. Coombs (1999) found that people expect accommodative response from the company, when they strongly perceive that the company was accountable for the negative event. This approach can reduce feeling of aggression (Carnevale & Isen, 1986; Conlon & Murray, 1996), which in turn leads to favorable evaluation of product or service providers. Further, even partial compensation may be sufficient to restore consumers' positive attitude toward the company and to enhance the likelihood of future purchases (Conlon & Murray, 1996). In addition, the company's response to accept responsibility for the negative events facilitates developing consumers' trust on the company, which in turn leads to affect their evaluation of the company as well as their purchase intention (Lee, 2005).

Defensive strategies include many forms of action, such as denying responsibility for the negative event, taking an attack on the accuser, and shifting blame to others. Researchers (e.g., Coombs, 1999) suggest that defensive strategies might be useful when the source of the problem is hard to identify. According to psychological equity theory, however, people who experience or observe unfairness will try to reduce distress by restoring either physical or psychological equity (Goodwin & Ross, 1992). Thus, the defensive approach is more likely to escalate the problem and lead to damage the company's reputation. Lee (2005) found that the attempt to deny organizational responsibility for the negative events will trigger negative perception toward the company.

"No action" strategies refer to offer no substantive comment or take no overt action (Smith, 2002). Companies with "no action" strategies simply attempt to separate themself from the negative events by remaining silent in the online sites (Lee, 2004). "No action" strategies may be useful when a company feels less responsible, when there is no overt blame, or when there is great potential that inappropriate responses cause severe offense (Mclaughlin, Cody, & O'hair, 1983). Researchers (e.g., Smith, 2002), however, argued that such strategic silence is most likely to be acceptable only by people who have strongly favorable feelings of the company. Thus, "no action" strategies may risk allowing negative information about the company to stand unchallenged, which in turn may damage the company's reputation.

Therefore, we hypothesized,

H3: The more that observers are exposed to *defensive* responses from the company, the more likely they are to conclude that the company is at fault.
H4: The more that observers are exposed to *accommodative* responses from the company, the more likely they are to positively evaluate the company.

4. Research methodology

4.1. Preliminary content analysis

We analyzed data from the 'Consumer's Complaint Forum' on *chosun.com*, the largest online newspaper in South Korea, before conducting experimentation. According to Alexa.com (www.alexa.com), it was recognized one of most-visited web sites worldwide (it was ranked in the mid-300s, whereas *usatoday.com* (www.usatoday.com) was ranked in the mid-200s). The complaint forum is unique because a mainstream medium offers a place for criticizing companies, many of which also advertise on the site. As of February 25, 2004, this forum had 4760 messages posted in only 9 months of operation. Among 593 messages posted in February, 2004, there were 122 complaint messages during that month.

The average number of hits per message was 2584, ranging from 370 to 15,900. This finding indicated that there are huge numbers of potential consumers who could make decisions based upon the messages. The large number of hits makes public relations or marketing managers pay attention to the complaints posted in this forum. We found that most Korean companies are monitoring the site on a regular basis.

The major categories for complaint messages include: asking a company for apology (23%), asking other consumers for boycott (13%), sharing experiences (46%), and expressing opinion regarding an issue (18%). Most complainers utilized the forum not just as the place to ask for a company's response, but also as the place to articulate their experiences with a certain product or service, and to build a common viewpoint. Interviews with several companies revealed that the companies assaulted by online complaints do not respond in this forum, most likely fearing that a response would escalate the issue. Many of them seem to resolve disputes by using the direct contact with the complainers. In sum, *chosun.com* provided useful information for assessing the behavior of complainers and repliers with or without companies' intervention.

4.2. Experimental design

We performed two separate experiments to investigate the impact of messages characteristics (experiment 1) as well as a company's response strategies on both attribution and company evaluation (experiment 2). To empirically test the proposed research model, the web-based experiment was used. An online shopping site was selected as research domain. 400 subjects participated in the first experiment. To avoid any potential response bias from the previous experiment, we performed the second experiment with a different set of 234 subjects. At the beginning of both experiments, we ask for basic demographic information from the subjects. The sample characteristics were summarized in Table 1. These sample characteristics provide strong indications that the subjects are reasonably representative of the population of typical online customers.

4.3. Measurement of research variables

Before conducting the experiments, a pilot test was undertaken with 90 students, which resulted in some refinement to the questionnaire. All manipulation checks were performed during the pilot test. The items were developed to ensure the efficacy of *consensus* and *vividness* manipulation. An independent *t*-test for the *consensus* score confirmed that the scenario with high level of *consensus* is significantly different from that with low level of *consensus* ($t = 10.98$, $p < 0.001$). The manipulation check for *vividness* utilized three-item measures given by Kelley, Gaidis, and Reingen (1989). 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) was used: "this message is concrete," "this message is rich," and "this message is clear." Cronbach alpha ($\alpha = 0.74$) was used to assess reliability of *vividness* scale. In addition, *t*-test for the *vividness* score confirmed that the scenario with high level of *vividness* is significantly different from that with low level of *vividness* ($t = 2.38$, $p < 0.05$). In addition, to ensure content validity, three external examiners were asked to evaluate the extent to which the level of *vividness* and *consensus* in the scenarios was equivalent to our intention and two scenarios of *vividness* and *consensus* reflected the same facts.

To measure attribution of responsibility, subjects were asked to answer the degree of responsibility by using scale from Griffin et al. (1992)'s work on responsibility and blame. The degree of responsibility was measured on 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree): "How responsible is the

Table 1
Sample characteristics.

	Age			Gender		Prior Experience	
	Range	Mean	S.D.	Male (%)	Female (%)	Online Shopping (%)	Posting complaints (%)[a]
Experiment 1 (N = 400)	18–34	22.65	2.40	57.3	42.8	91.3	59.5
Experiment 2 (N = 23)	19–34	22.13	3.06	51.3	48.7	92.6	60.9

[a] Posting own complaint at least once in an online complaint site.

company?" The company evaluation was measured with an organization's reputation scale adapted from Coombs and Holladay (2002). The three items were measured on 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree): "the online shopping site is concerned with the well-being of its consumers," "the online shopping site is basically honest," and "I trust the online shopping site to tell the truth about the incident." The value of Cronbach alpha (α = 0.897) confirmed reliability of the measure.

4.4. Experiment 1

Research subjects included 400 undergraduate and graduate students from two large universities in Korea. To ensure that participants were actively involved in the experiment, we provided extra credit for their course.

To investigate specific relationship between message characteristics, attribution, and company evaluation, participants were randomly assigned to one of four cells in a 2 (consensus scenario) × 2 (*vividness* scenario) full-factorial experiment. To develop the scenarios, we examined the current online complaint site, www.chosun.com, and obtained the major contents from actual complaints and replies in that site. We also developed four experimental web sites. Each site contains the corresponding scenario to each experimental cell. Then, each participant was asked for assessing the site content. For example, first participant reads a scenario with high *consensus* and high *vividness*, the second does one with high *consensus* and low *vividness*, and so on.

The first page of each web site contains the instruction of how participants should perform a task. In addition, we read the same instruction to the participants. The participants were guided to read the page that contains *vividness* scenario, followed by *consensus* scenario. The participants were then instructed to turn the page to the scaled measures, and answered the questions regarding their evaluation.

4.4.1. Vividness scenario

Previous studies indicated that the use of photos as well as concrete language helps consumers understand the content of specific messages (Kelley et al., 1989; Morris, Brinberg, Klimberg, Rivera, & Millstein, 1986). In addition, we observed in our preliminary analysis that many complaints included photos. Thus, the scenario with high level of *vividness* includes clear photos that show the defects in a product. In addition, the scenario contains a detailed situation that indicates what happens with the product and why a complainer posts the message. On the other hand, the scenario with low level of *vividness* includes a brief description of the product without any graphical aid.

4.4.2. Consensus scenario

We used four replies for each situation. The scenario with high level of *consensus* shows that three of four replies contain similar experiences with the online shopping site. Further, the statements include strong "voice" against the online shopping site, which indicate that they have the same opinion as the complainer. On the

other hand, the scenario with low level of *consensus* shows that three of four replies include disbelief in the complaining message.

4.4.3. Covariates

We included individual's prior experience of posting online complaints, in order to control its effect on attribution and company evaluation. Prior experience may be used as a proxy of *consistency* in information dimensions of attribution theory (Kelley, 1967). According to attribution theory, *consistency* refers to a person's experiences with the companies, products, or services over time. Thus, when people who have experiences with posting online complaints encountered online complaints, they are likely not only to strongly support the current complaints, but also to attribute responsibility of the negative events to the company. To manipulate prior experience, the variable takes the value of 1 if individual has posted online complaints at least once, and 0 otherwise.

4.4.4. Hypotheses testing

In this study, we examined how differently each sample group responses. Thus, we used one-way analysis of variance (ANOVA) and Scheffe *post hoc* tests to determine statistically significant differences between the responses. The results were reported in Table 2.

Table 2
Results for Experiment 1 (N = 400).

Message characteristics	N	Attribute to company		Company evaluation	
		Mean	S.D.	Mean	S.D.
H H	78	4.56	0.59	1.96	0.60
H L	98	4.37	0.60	2.17	0.82
L H	115	4.25	0.66	2.48	0.97
L L	109	4.14	0.67	2.53	1.11
	F		Significance		d.f.
Dependent: Attribute to company					
Message Characteristics	7.64		0.00***		3395
Prior experience	1.44		0.23		1395
Mean differences	Mean differences				
H H – H L	−0.21		0.25		
H H – L H	−0.51		0.01*		
H H – L L	−0.57		0.00***		
Dependent: Company evaluation					
Message Characteristics	8.25		0.00***		3395
Prior experience	3.51		0.06		1395
Mean differences	Mean differences				
H H – H L	0.20		0.53		
H H – L H	0.31		0.00**		
H H – L L	0.43		0.00***		

Notes: HH = high level of consensus and high level of *vividness*. HL = high level of consensus and low level of *vividness*. LH = low level of consensus and high level of *vividness*. LL = low level of consensus and low level of *vividness*, Attribution to company: 1 = low responsible for the problem, and 5 = high responsible for the problem, Company evaluation: 1 = low, and 5 = high.
* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

The results showed that the message characteristics were significantly related to the perception of observers on attribution to the company, providing support for H1 ($F_{3,395} = 7.64$, $p < 0.001$). As hypothesized, observers exposed to online complaints with high level of *consensus* and high level of *vividness* ($M = 4.56$) were more likely to conclude that the company was responsible for the problem than those receiving other configurations ($M = 4.25$ for low *consensus* and high *vividness*, and $M = 4.14$ for low *consensus* and low *vividness*), but there was no distinction from ones with high level of *consensus* and low level of *vividness* ($M = 4.37$).

We also found that the message characteristics were significantly related to the perception of observers on evaluation of the company, supporting H2 ($F_{3,395} = 8.25$, $p < 0.001$). The results showed that observers who were exposed to online complaints with high level of *consensus* and high level of *vividness* ($M = 1.96$) were more likely to negatively evaluate the company than those receiving other configurations ($M = 2.48$ for low *consensus* and high *vividness*, and $M = 2.53$ for low *consensus* and low *vividness*). We, however, did not find support for ones with high level of *consensus* and low level of *vividness* ($M = 2.17$).

4.5. Experiment 2

Two hundred thirty four undergraduate and graduate students from two large universities in Korea participated in the second experiment. This experiment was done one week after the first experiment. In addition, to minimize a possible response bias raised from the previous experiment, we selected subjects who enrolled in the different courses. To encourage the subjects participate in the experiment, we provided them with extra credit.

The experiment was designed to examine the effect of corporate response strategies on attribution and company evaluation. Participants were randomly assigned to one of three experimental cells that contain a complaint scenario and one of three response strategies (i.e., accommodative, defensive, and taking no action). To be consistent with the first experiment, we checked the current online complaint site, www.chosun.com, and we developed the scenarios adapted from the actual company responses. We then followed a similar procedure to the first experiment, in asking participants for performing the task. After reading the instructions, the participants were guided to go through the page that contained a complaint scenario, followed by a response scenario. The participants were then instructed to turn the page to the scaled measures, and answered the questions regarding their evaluation.

4.5.1. Corporate response scenario

We developed three separate scenarios: accommodative, defensive and taking no action. Defensive scenario included "shifting the blame to others." Accommodative scenario encompassed combined explanations (Conlon & Murray, 1996), such as apology and a promise of full compensation. "No action" scenario presented a simple statement that the company "did not respond to the complaint at all."

4.5.2. Hypotheses testing

For the second experiment, we examined the effect of corporate response strategies on attribution and company evaluation. We used the same analysis tools as the first experiment: one-way analysis of variance (ANOVA) and Scheffe *post hoc* tests. The results were summarized in Table 3.

The results showed that the corporate response strategies were significantly related to the perception of observers on attribution to the company, providing support for H3 ($F_{2,230} = 9.38$, $p < 0.001$). We found that observers who were exposed to online complaints with *defensive* response ($M = 4.50$) were more likely to conclude that the company was responsible for the problem

Table 3
Results for Experiment 2 ($N = 234$).

Response strategies	N	Attribute to company		Company evaluation	
		Mean	S.D.	Mean	S.D.
Accommodative	76	4.29	0.67	3.27	0.92
Defensive	88	4.50	0.57	1.75	0.61
No action	70	4.07	0.62	1.87	0.51
		F		Significance	*d.f.*
Dependent: Attribute to company					
Response strategies		9.38		0.00[***]	2230
Prior experience		0.05		0.83	1230
Mean differences		Mean differences			
Defensive–Accommodative		0.21		0.10	
Defensive–No action		0.43		0.00[***]	
Dependent: Company evaluation					
Response strategies		109.45		0.00[***]	2230
Prior experience		0.66		0.42	1230
Mean differences		Mean differences			
Accommodative–Defensive		1.51[*]		0.00[***]	
Accommodative–No action		1.40[**]		0.00[***]	

Notes: Attribution to company: 1 = low responsible for the problem, and 5 = high responsible for the problem, Company evaluation: 1 = low, and 5 = high.
[*] $p < 0.05$.
[**] $p < 0.01$.
[***] $p < 0.001$.

than those taking no action ($M = 4.07$), but not ones with *accommodative* response ($M = 4.29$).

As hypothesized, we found that corporate response strategies were significantly related to the perception of observers on evaluation of the company, supporting H4 ($F_{2,230} = 109.45$, $p < 0.001$). Our results showed that observers who were exposed to online complaints with *accommodative* response ($M = 3.27$) were more likely to positively evaluate the company than those receiving other configurations ($M = 1.75$ for *defensive*, and $M = 1.87$ for no action).

5. Discussion

We proposed two set of hypotheses to examine the effect of message characteristics on attribution and company evaluation, as well as another two set of hypotheses to investigate the influence of corporate response strategies on those outcome variables.

The results showed that the message characteristics were significantly related to the consumers' perception that the company was responsible for the problem, as well as their evaluation of the company (H1 and H2 supported). Consistent with the previous studies (Folkes & Kotsos, 1986; Hayne et al., 2003; Kim et al., 1991), our results indicate that the message characteristics are a critical informational cue to understand how observers respond to the online complaints. Interestingly, however, we found that, when a high level of *consensus* existed, *vividness* did not have any significant effect on attribution as well as company evaluation. A closer look at the data revealed that there was a strong effect of *consensus* on both attribution ($F_{1,396} = 17.86$, $p < 0.001$) as well as company evaluation ($F_{1,396} = 22.83$, $p < 0.001$). These finding implies that the opinions from reference groups may be more critical than elaborated messages to influence the consumers' perception of responsibility for the negative events.

In addition, the results showed partial support for the effect of consumers' prior experiences of posting complaints, particularly on company evaluation ($F_{1,395} = 3.51$, $p = 0.06$). This finding suggests that experienced consumers may be more vulnerable than the others, particularly when additional informational factors are presented.

Our findings revealed that corporate response strategies had a strong impact on the consumers' perception of both responsibility and company evaluation (H3 and H4 supported). These results are

consistent with the previous studies in the offline context (e.g., Lee, 2005), indicating that appropriate response strategies could engender the consumers' positive attitude toward the negative events. *Defensive* response strategies had a stronger impact on the consumers' perception that the company was at fault, than "no action" strategies. This finding implies that consumers may easily feel disappointed by a company's responses like shifting the blame to the complainer. Interestingly, we found that "no action" strategies retained the lowest average value of responsibility for the problem ($M = 4.13$), which suggests that a company may minimize blame by simply taking no action against the negative events, rather than taking any other actions (Mclaughlin, Cody, & O'hair, 1983). There, however, was a partial support for the difference between *defensive* and *accommodative* strategies (Mean difference = 0.21, $p = 0.097$). A possible explanation of this finding is that the company's responses, such as apology or corrective actions, may be considered as accepting responsibility for the negative events, which may provoke blame for the incidents.

The results showed that *accommodative* strategies had a stronger impact on the consumers' evaluation of the company than other response strategies. This finding suggests that consumers may value any form of corrective actions of a company in the online context. This finding resonates with the previous findings (Conlon & Murray, 1996; Coombs, 1999), demonstrating that accommodative strategies may provide favorable outcomes toward the negative events, including consumers' satisfaction and their continued loyalty to the company.

5.1. Limitations

We have uncovered the influence of the key factors, such as *consensus* and *vividness*, as well as appropriate response strategies in the online complaint context. These results, however, should be interpreted with caution. First, we draw a convenient sample of students for the experiments. Thus, while our preliminary findings hold great promise, generalization of the results requires further inquiries. Second, this study has adopted *consensus* and *vividness* as major informational factors for causal attribution in a limited perspective. Although our finding showed that *consensus* had a significant effect on causal attribution in the online context, future research may investigate other factors, such as individual frequency of posting complaints, individual propensity to complain, and personal view of the focal product or service, to help understand whole attribution process. Third, although we adapted the measures that were validated by the previous studies (Coombs & Holladay, 2002; Griffin et al., 1992), our results may be restricted by a limited set of scales for assessing responsibility and company evaluation. Future studies may incorporate additional measures such as anger or other reactions. Finally, we used several categorical scales to measure research constructs, including corporate response strategies. In future study, we need to develop a complete set of scales to extend the current research.

6. Conclusion and implications

This study attempts to explore the influence of the key informational factors and appropriate response strategies on attribution process in the online complaint context. Our findings provide an understanding of the attribution process as well as online complaining behaviors.

Our results have significant implications for online complaint research in the several disciplines. This research is the first to examine the impact of message characteristics as well as response strategies on attribution process and company evaluation in the online context. First, previous studies have examined the effect of consumer complaint behavior only from the dissatisfied consumers' perspec-

tive (Conlon & Murray, 1996; Davidow, 2003; Singh, 1990). This study focused on potential consumers (i.e., observers) and their perception of responsibility. This *observer*-oriented perspective may be appropriate, considering the fact that an increasing number of potential consumers who have easy access to online complaints (Hennig-Thurau & Walsh, 2003) may be problematic to most companies. Second, our study brings in a new orientation to extend traditional attribution research (e.g., Kelley, 1973) by defining *consensus* as corresponding views between a complainer and subsequent repliers in the online context. Thus, further inquires may be required to explicate the relationship between *consensus* and other underlying factors, such as anonymity, in the online complaint context. Finally, researchers in the field of e-commerce are beginning to examine the primary factors that can potentially explain the complex phenomena in online communications. Our results revealed a significant effect of the key factors on online complaint behaviors, which may be critical to online communications. Thus, future studies may explore the relationship between complaint behaviors and other essential factors, such as social cohesion, in online communications.

The study has interesting and potentially substantive implications for online communication practice and public relation (PR) or marketing managers. Our findings suggest that *consensus*, corresponding views from others, should be a vital component of understanding online attribution process. Further, our findings showed that corporate response strategies to online complaints may be a double-edged sword. A company's proactive actions, such as apology and compensation, commonly facilitate building up consumers' trust on the company and help the company restore its positive image (Conlon & Murray, 1996; Griffin et al., 1992; Lee, 2005). On the other hand, corrective actions or even mere expression of concern may be considered as publicly accepting responsibility for the negative events, which may make complainers and other consumers angry and frustrated. Such actions are unlikely to bring about any improvement in the situations. Thus, PR or marketing managers may carefully monitor other consumers' views along with the complaint message before taking proper actions on the negative events. In addition, our results suggest that consumers' prior experiences of posting complaints may be a critical factor of influencing their evaluation of the company. Thus, companies need to monitor the increasing number of "new" complainers.

Our study is one of the first to focus attention on understanding online complaint behaviors. Our results have provided a basis for future inquires. For example, should companies accept online complaint sites as a new channel for managing complaints? In several interviews with marketing managers, they showed resistance to considering the Internet as their formal channels for handling complaints. A recent study, however, suggests that appropriate online complaint management is necessary for successful Electronic Customer Relationship Management (Cho, Il, Hiltz, & Fjermestad, 2002). Thus, further investigation may be required. In addition, future studies may include other critical factors, such as credibility of complainers and repliers, individual frequency of posting complaints, and individual propensity to complain, which affect online complaint behaviors.

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