Do we follow the crowd on social media? Experimental evidence on consumer attitudes in the contexts of NeWOM and firm crisis response

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Abstract

Purpose – This study applies social network theory to examine the moderating effects of two online social media network characteristics, namely homophily and consensus, on the influence of negative electronic word of mouth (NeWOM) and of firm crisis response on consumer attitude toward a company.

Design/methodology/approach – Hypotheses were tested using a mixed-model experimental design of three between-subjects factors, including manipulations of homophily (high vs low), consensus (high vs low), and firm crisis response (accommodative vs defensive), and one repeated measure within-subjects factor of attitude toward the company at three different points in time (A_0, A_1, A_2). Data were collected from 328 Thai participants who were randomly assigned to one of the eight experimental conditions.

Findings – High homophily and high consensus online social media network conditions worsen the negative impact of NeWOM on consumer attitudes. However, high homophily and high consensus strengthen the positive influence of an accommodative response in regaining favorable attitude toward the company. Low homophily and low consensus negate the impact of the firm's defensive response, preventing any further deterioration of attitude toward the company.

Practical implications – Marketers need to understand the relational patterns among members of online social media networks in order to assess the extent to which consumers are influenced by others in the network. In doing so, the firm can better anticipate and manage the impact of NeWOM and can launch an appropriate response strategy that optimizes the recovery, or minimizes the deterioration, of lost company image and reputation.

Originality/value – This study provides a dynamic view of consumer attitudes and highlights the substantial impact that others in the online social media network have on consumers' evaluation of NeWOM and of firm recovery efforts.

Keywords Social media, Social network theory, Experiment, Homophily, Consensus, Thailand

Paper type Research paper

Introduction

With the ease and speed at which news of corporate activities are disseminated in today's digital environment, marketers must be prepared to manage the effects of negative electronic word of mouth (NeWOM), which are individuals' unfavorable or disappointing experiences

about a company or product posted via the Internet (Lee and Lee, 2009). NeWOM and its impact on the individuals receiving it have garnered a significant amount of academic interest in the past decade due to its highly detrimental effects. For instance, in 2014, the Korean Air "nut rage scandal" involving a top executive with filial ties to the airline's chairman went globally viral over social media. The firm's defensive response (DF), a form of company-generated content, worsened the situation by insisting that the executive's actions were justified (Kim *et al.*, 2018a). Korean Air staff protested against the "nut rage" family and the internet overflowed with tweets about the incident, contributing to a brand crisis, along with the loss of Year-Over-Year domestic market share in 2014 and a sharp fall of 4.1 percent in the airline's share price (Si-soo, 2014).

The occurrence of companies having to cope with NeWOM, such as in the form of consumer criticism and complaints, seems to have become more commonplace (see Dickinson, 2018; Singh and Blundy, 2016). Research on the impact of NeWOM on consumer decision-making and the demand for products are inconsistent, suggesting that the impact may be contingent upon various factors, such as platform characteristics and product characteristics (Rosario *et al.*, 2016), consumer prior knowledge of the company/brand (Bambauer-Sachse and Mangold, 2011) and degree of product involvement (Doh and Hwang, 2009). As such, studies on the effect of NeWOM on consumer behaviors is context-specific and should be examined based on relevant situational factors.

A firm's response to deal with NeWOM has drawn considerable academic attention in different fields. For instance, the service encounter literature refers to these occurrences as service failure/recovery episodes (e.g. Lee and Cranage, 2014), while the brand crisis management literature refers to them as crisis/rescue events (e.g. Dutta and Pullig, 2011; Greyser, 2009). A firm's response to NeWOM is implemented to mend the firm's brand image and reputation, as well as to dilute negative impacts. Firm crisis response (RES) strategies refer to how a firm reacts to the negative comments, criticisms or complaints made by dissatisfied customers about a product or service failure. Firms may choose from an array of response strategies, including those that refute firm responsibility (e.g. attack, denial, excuse, defense etc.), those that demonstrate firm accountability (e.g. full apology, corrective action and accommodation) (Coombs, 2009; Marcus and Goodman, 1991) and that of no action. A firm's response to NeWOM requires careful consideration, as about 85 percent of consumers form opinions about organizations based on how they respond during crises (Weber Shandwick, 2017).

The main objective of this current study is to examine changes in consumer attitude toward a company during sequential episodes involving first NeWOM, then of RES, i.e. accommodative response (AC) and DF conditions. In particular, our interest lies in examining the moderating effects of online social media network characteristics, which describe the patterns of informal connections among individuals within the online social media network, e.g. Facebook. Research interest regarding the influence of online social media network characteristics has been increasing, with several recent publications on the influence of homophily (e.g. De Keyzer *et al.*, 2019; Kim *et al.*, 2018b), which refers to the degree of similarity among members of a network (McPherson *et al.*, 2001), and some on consensus (CON) (e.g. Kim and Lee, 2015; Lee and Cranage, 2014), which refers to the degree of agreement among network members in their opinion on a particular topic or issue (McPherson *et al.*, 2001).

This study addresses three broad research questions: (1) Do online social media network homophily and CON moderate the effect of NeWOM on consumer attitude toward the company?; (2) Do online social media network homophily and CON moderate the influence of a company's response strategy on consumer attitude toward the company? and; (3) To what extent does an AC and a DF influence consumer attitude toward the company? In doing so, the empirical work here provides several contributions to the growing body of literature on

NeWOM in online social media networks. First, this study is distinct from prior research on NeWOM in social media in that it simultaneously investigates the social influences of homophily and CON, which has yet to be empirically examined despite their noted importance in the general sociology literature. Second, this study examines the dynamic aspect of consumer attitude toward a company in sequential experimental episodes of NeWOM then of RES, which overcomes the limitations of cross-sectional studies. Also, this current study extends social network theory and the influence of NeWOM on individual perceptions to an online context of consumers in an emerging market in Asia, where studies of NeWOM in online social media networks are relatively scant (Naqvi *et al.*, 2019). More specifically, this study involved a sample of consumers in Thailand, a country where online social media network participation rates are well above the global average.

Thailand reports some of the highest social media usage rates in the world, with nearly three-fourths of the population using Facebook (Leesa-Nguansuk, 2019). According to the Thailand Internet User Survey for 2019, Thais spend an average of 9.11 h on the internet, of which an average of 3.11 h is spent using social media, with much higher usage among Thais in the 18- to 37-year-old age group. The most popular online social media forums and their penetration rates are Facebook (93%), YouTube (91%) and Line (84%) (Hootsuite and We Are Social, 2019). Thus, Thailand presents a meaningful context to study the manner in which attitude formation occurs among Thai users of social media. The findings from this study will help decision-makers to better manage their company's public image and reputation within their online channels. In the proceeding section, we discuss the theoretical foundations and the development of our conceptual framework.

Theoretical foundations and conceptual framework

The study is based largely on theoretical perspectives grounded in social network theory (Granovetter, 1983). A social network comprises a set of individuals, organizations and/or other social entities (i.e. actors) that are connected by a set of socially meaningful interactions. Individuals participate in social networks for numerous social, psychological, emotional and economic benefits and the intensity of their participation is contingent on their thoughts, feelings and behaviors (Granovetter, 1983). The notion of a network is based on two important assumptions. The first is that the social network, in its instrumental role of connecting and exposing actors to information and ideas, plays a crucial role in influencing individual attitudes and behaviors. The second assumption is that the network of relationships in which the actor is situated is more critical in determining individual behavior than the intrinsic characteristics of the actors themselves. Thus, applying a social network perspective is appropriate to derive a deeper understanding of consumer attitude formation within an online social media context.

The conceptual model of this study focuses on the social network constructs of homophily and CON and their influence on consumer attitudinal responses amid two different online content scenarios, namely NeWOM and RES (see Figure 1). For illustrative purposes, consider a consumer's perceptions of a well-established company over three time instances ($t = 0, 1$ and 2). At time $t = 0$, the consumer possesses a strong liking and favorable image of the company as a result of the company's earlier brand building (e.g. advertising campaigns, sponsorships and relationship marketing programs) and product quality investments. Suppose that at time $t = 1$, the consumer reads a post from a highly dissatisfied customer's experience with the company (i.e. NeWOM), which is likely to diminish the consumer's liking and favorability toward the company. Further suppose that at time $t = 2$, the consumer is exposed to the company's response about the controversial incident. The extent to which the consumer's attitude about the company recovers is likely to depend on the type of response the company communicated. By applying social network theory, we argue that at times 1 and 2, the degree
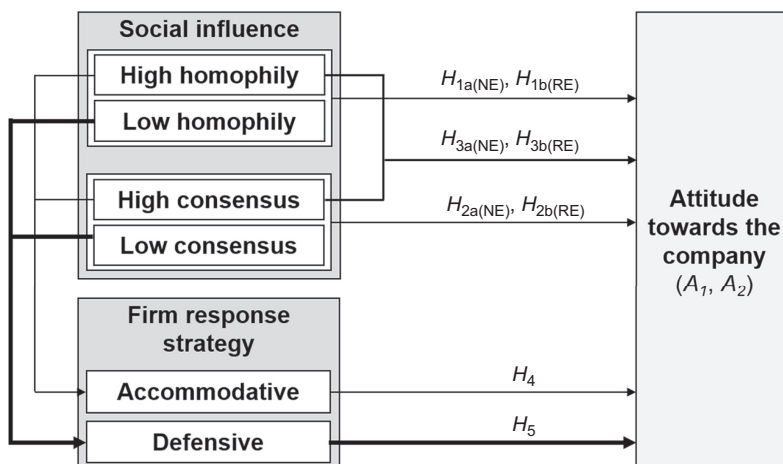
Figure 1.
Model of social
network influence and
consumer attitude
toward the company

Note(s): A_1 refers to the mean value of attitude toward the brand after exposure to
NeWOM, A_2 refers to mean value of brand attitude after exposure to firm's
response strategy

to which the consumer's attitude changes from t_0 to t_1 and from t_1 to t_2, will be contingent
upon the nature of the social network's structural characteristics, namely homophily and
CON. In our attempt to examine these assumptions, we extend social network theory to the
online context of NeWOM and a recovery attempt and empirically test our proposed model
within a longitudinal research design to observe changes in consumer attitudes. The
following sections elaborate on the major constructs of our study and the corresponding
hypotheses.

Negative electronic word of mouth (NeWOM)
In this paper, NeWOM refers to an active customer reaction to inform others online about a
dissatisfactory experience with a company, product or service. NeWOM can be
communicated as a complaint, unfavorable or poor product review or comment of
disapproval (Chevalier and Mayzlin (2006). Since sources of such NeWOM are individuals
who are independent of the firm, the negative information is commonly believed to be more
credible and has a greater effect on other consumers' brand evaluations than does favorable
positive electronic word of mouth (PeWOM) (Lim and Chung, 2011; Park and Lee, 2009).
There is widespread agreement in the extant literature that NeWOM has a significant impact
on the behavior of other individuals exposed to it (Brown *et al.*, 2007; Rosario *et al.*, 2016;
Verhagen *et al.*, 2013).

The mechanisms by which NeWOM influence others in a social network has received
much attention in the marketing literature. Bambauer-Sachse and Mangold (2011)
demonstrate that when relevant NeWOM is received by consumers who possess a positive
predisposition toward the brand, the NeWOM challenges their initial impression about the
brand and alters their initial predisposition toward the direction of the contrasting
information, resulting in lower consumer brand equity. Moreover, their empirical results
show that consumer-based brand equity diminishes when consumers are exposed to
NeWOM, regardless of consumer brand knowledge and irrespective of the product category.
Doh and Hwang (2009) found that consumer attitude toward a product is less favorable amid

NeWOM product reviews compared to when amid PeWOM reviews. Additionally, they found that in NeWOM conditions, a favorable attitude toward the product was lowest among consumers in the low product involvement group and among consumers with low prior knowledge of the product, revealing context-specific influences. For such reasons, this current study examined the potential moderating influences of others in the online social media network, specifically in terms of homophily and CON, on the impact of NeWOM and of RES on consumer attitudes.

Homophily

Homophily (HOM) is generally described as the tendency of individuals to associate and form bonds with similar people (Rogers and Bhowmik, 1970). HOM can apply to numerous forms of social interactions and has been shown to prevail in a wide variety of social settings (Fu *et al.*, 2012). HOM is often described with the phrase "birds of a feather flock together" and the philosophy that "similarity breeds connections" (McPherson *et al.*, 2001). Studies on the effects of homophily in an offline social network context have found that homophily enhances communication effectiveness, information-sharing and information-seeking (Borgatti and Halgin, 2011; Rogers and Bhowmik, 1970). Consequently, information from a source in a high homophily (*HHOM*) context, compared to one that is low (i.e. dissimilar), has more influence on the consumer decision-making process.

Studies in an online context have extended these findings. For instance, Steffes and Burgee (2009) found that students' who were part of an online professor rating forum were influenced more by information from *HHOM* sources than by information from low homophily (*LHOM*) sources. Similarly, Park *et al.* (2014) found that consumers who perceived *HHOM* among members of the social commerce site experienced higher levels of affective and cognitive involvement, which led to higher purchase intention based on the recommendation of others in the network. From their observations of online groups, Pace *et al.* (2017) surmise that the "in-group" feature derived from the perception of homophily in an online network amplifies an individual's attitude toward the issue at hand. De Keyzer *et al.* (2019), from their study of Facebook users, found that an individual's perception of online network homophily intensifies the effect of NeWOM on behavioral intention. Based on such outcomes, if *HHOM* online sources amplify or intensify the effects of information on consumer evaluations, then we expect such effects to be evident in online social contexts of NeWOM and of a firm's crisis response strategy. Therefore, we hypothesize that:

H1a. The impact of NeWOM on consumer attitude toward the company is stronger in high homophily groups than in low homophily groups.

H1b. The impact of firm crisis response on consumer attitude toward the company is stronger in high homophily groups than in low homophily groups.

Consensus

The second social media network construct in our conceptual model is CON, which broadly describes the degree to which people are in agreement on a particular position, conclusion or set of values typically used with reference either to group dynamics or public opinion (Scott and Marshall, 2015). An individual's perception of others' opinions and its effect on consumer decision-making has long been of interest to marketers. For instance, the consumer behavior literature suggests that consumers generally consider multiple opinions in their product evaluations (e.g. West and Broniarczyk, 1998). In this present study, CON represents the level of agreement among eWOM comments, given an evaluative opinion (i.e. positive or negative) of a target entity, and is expressed by some ratio of NeWOM to PeWOM (Lee and Cranage, 2014). This conceptualization of CON as a social influence has been referred to as "reviewer

agreement" (Jiménez and Mendoza, 2013), "consensus information" (Kim and Lee, 2015), or "opinion consensus" (e.g. Lee and Cranage, 2014). CON has been regarded as an important signal or cue that consumers rely on to form their own opinions and beliefs about a product (Aiken and Bousch, 2006). Consumers often use CON as a shortcut to establish the credibility of claims, such as complaints and comments on product quality (Aiken and Bousch, 2006; Jiménez and Mendoza, 2013). In online social media contexts, platform features such as the "Like" button, consumer reviews, consumer ratings and percentages of agreement/ disagreement simplify discussion content, enabling network members to form their own opinion quickly rather than sifting through a large number of submitted messages.

Prior studies have found that review CON has a strong influence on consumers' evaluation of a product (Kim and Lee, 2015). CON ratings positively impact online trust (Benedicktus, 2011) and purchase intention (Jiménez and Mendoza, 2013). Negative messages are perceived as more trustworthy than positive messages (Pan and Chiou, 2011) and stimulate greater personal reactions than PeWOM (Park and Lee, 2009). NeWOM can also create a strong impact on consumer evaluations (Bambauer-Sachse and Mangold, 2011). For instance, 44% of people who read negative tweets about movies change their minds and do not go to see the movie without further discussion or seeking more information, while 26% discuss the movie, and almost 30% search for more information (Hennig-Thurau *et al.*, 2015). These findings illustrate the important role of individual opinions communicated via social media on influencing consumer attitude toward products and brands.

Prior research confirms that consumers are more accepting of information that a majority has agreed on, even though the majority may have initially been against the idea (Cialdini and Goldstein, 2004). When an organization faces an incident of public scrutiny, NeWOM generated by public opinion can lead to a brand crisis because it motivates customers to have negative thoughts about the brand, which threatens the brand's reputation (Coombs, 2007b). Lee and Cranage (2014) confirmed the impact of NeWOM CON and crisis response strategy on customer attitudes in a restaurant context. The ratio of positive and negative messages that reflects message CON impacts brand evaluation. For instance, a low ratio of positive to negative messages leads to a negative brand evaluation (Doh and Hwang, 2009). Similarly, Ballantine and Yeung (2015) found that a CON on negative reviews led to the lowest ratings of brand attitude and purchase intention, whereas a CON on positive reviews led to the highest ratings of these two outcomes. Hence, a high CON of NeWOM reduces the receiver's favorable brand evaluation by associating NeWOM with the focal brand (Laczniak *et al.*, 2001). Therefore, in the context of this study, it is expected that a CON of NeWOM (i.e. customer complaints) and a CON in the reactions to the firm's crisis response will have significant effects on the formation of consumer attitude toward the company.

H2a. The effect of NeWOM on consumer attitude toward the company is stronger in high consensus groups than in low consensus groups.

H2b. The effect of firm crisis response on consumer attitude toward the company is stronger in high consensus groups than in low consensus groups.

High homophily vs high consensus
Individual perceptions of an online social media network's homophily and CON are likely to influence his/her opinions and attitude on an issue or object. However, it is likely that homophily would produce a stronger effect on consumer attitude than CON because information from others who are perceived as similar to oneself is considered to be of greater personal relevance. The findings from Chaiken (1980) suggest that homophily has a stronger impact on opinion change than CON when consumers perceived the message as low in personal relevance. According to Sechrist and Stangor (2007), consumers in homophilous

social networks are more confident when making evaluations and focus less on CON information, whereas consumers in diverse social groups tend to depend more on CON information. Sechrist and Milford-Szafran (2011) also confirmed that CON messages from "in-group" friends produced a stronger effect than CON messages from in-group strangers. Therefore, the relations with group members reflecting homophily are expected to have a greater influence on attitude toward a company within the contexts of NeWOM and firm crisis recovery than relationships with group members based on CON. Thus, the following hypotheses are advanced:

H3a. The impact of NeWOM on consumer attitude toward the company is more pronounced in high homophily groups than in high consensus groups.

H3b. The impact of firm crisis response on consumer attitude toward the company is more pronounced in high homophily groups than in high consensus groups.

Firm crisis response, homophily and consensus
Failure to implement an effective RES results in unsuccessful service recovery, producing a loss of trust, negative word of mouth and the loss of brand loyalty (Kau and Loh, 2006). This current study focuses on examining DF and AC strategies. Prior research has shown that DF and no action response strategies are perceived similarly by consumers (e.g. Lee and Song, 2010) and therefore, we exclude the no action response. DF and AC strategies represent bipolar approaches in the crisis communication strategies continuum (Coombs, 2009) and have been employed in similar studies (e.g. Chang *et al.*, 2015). DF strategies involve claims that no crisis or problem exits, evasion of responsibility or shifts of blame to the complainant or others. No action response strategies involve the firm distancing itself from problems by ignoring them, remaining silent or deflecting questions pertaining to the problem. AC strategies are developed through methods of recognition and acceptance of responsibility and/or taking corrective action such as giving an apology and/or compensation.

During crisis/failure, consumers will attempt to rationalize the incident and determine the underlying cause of the event and as a result, perceptions of the crisis and failure influence post-failure behavior. Such rationalization has been explained by attribution theory (Fiske and Taylor, 1991), which is concerned with how individuals attempt to justify the causes of behaviors and events. The causes of crises can be of internal origin (i.e. the presence of high organizational crisis accountability) or of external origin (i.e. an incident of low organizational crisis responsibility) (Coombs, 2007a). Prior research has found that the AC strategy induces a stronger effect for an internal crisis origin, while the DF strategy is more effective for an external crisis origin (Liu *et al.*, 2011). For instance, consumers are amenable to an accommodative strategy, such as when the remedy is offered in the form of compensation or when the cause of a service failure is due to human action (i.e. internal origin) compared to when the cause is due to self-service technology (i.e. external original) (Mattila *et al.*, 2009). An apology posted in an online discussion board as part of an AC strategy has also been shown to be effective in reducing the negative impacts of a potential crisis (Coombs and Holladay, 2012). A DF strategy is effective in preventing or minimizing brand dilution and brand dislike when there is no association between the crisis and the accused firm and the crisis does not have serious implications for the affected party (Kim *et al.*, 2009). In the context of online social media communities, such as that of this current study, the focus is on internal crisis origin; thus, it is expected that an accommodative strategy would be more effective in attaining service recovery. Moreover, it is also expected that homophily and CON would affect response strategy effectiveness.

Consumers trust information that is provided within the context of *HHOM* (Bhuiyan, 2010). NeWOM disseminated within such a context would elicit an immense negative impact

on consumer attitude toward the brand, although an accommodative strategy would restore consumer brand attitude better than would a defensive strategy. However, a CON of NeWOM also impacts consumer evaluations and the organization's response strategy. Lee and Cranage (2014) reported that a DF would be more effective than an AC when there is a low CON on NeWOM and that a DF is the least effective strategy under a high CON (Lee and Cranage, 2014). Therefore, the following hypotheses are advanced:

H4. The impact of an accommodative response strategy on brand attitude recovery in groups of high consensus and high homophily is more pronounced than the impact of a defensive response strategy.

H5. The impact of a defensive response strategy on brand attitude recovery in groups of low consensus and low homophily is more pronounced than the impact of an accommodative response strategy.

Methodology

Participants

The participants were drawn from a sample of upper-level undergraduate students. This target sample was considered an appropriate segment of consumers for this study given their high involvement and familiarity with online social media platforms. A total of 505 Thai undergraduates from three large universities in Thailand initially participated in the study. Responses from 177 of them were excluded from the analyses due to incomplete information in the research instrument. Therefore, the final sample size is 328, of which 248 (75.6%) are female and 80 (24.4%) are male. Recent UNESCO statistics report that the proportion of females (F) exceeds that of males (M) at the tertiary level (http://uis.unesco.org/country/TH). We ran comparisons between female and male groups in our sample on several measures and found no significant differences in frequency of social media use ($\chi2 = 5.28$, $p = 0.15$), frequency of posting on social media ($\chi2 = 3.34$, $p = 0.34$), initial attitude toward the company (A_0) ($t = 0.17$, $p = 0.86$), perceptions of homophily ($t = 1.32$, $p = 0.19$), perceptions of CON ($t = 0.56$, $p = 0.57$), and perceptions of RES ($t = 0.13$, $p = 0.90$). The sample mean age is 21.1 years. All participants (100%) use Facebook. In terms of social media usage, 44.1 percent had four to six years of social media experience and 42.7 percent had more than seven years of social media experience, with 71% of our sample using social media every hour, 72.3% posting on social media once a day and 16% posting twice a day.

Each participant was randomly assigned to one of the eight treatment conditions of a 2 (homophily: high vs low) x 2 (CON: high vs low) x 2 (response strategy: accommodative vs defensive) factorial design. The distribution of participants across the eight conditions is reported in Table 1. Randomization achieved group equivalence on several key variables

| Response strategy (RES) | High homophily (HHOM) | | Low homophily (LHOM) | | Total |
	High consensus (HCON)	Low consensus (LCON)	High consensus (HCON)	Low consensus (LCON)	
Defensive (DF)	37 (8M; 29F)	30 (5M; 25F)	51 (13M; 38F)	49 (14M; 35F)	167 (40M; 127F)
Accommodative (AC)	40 (10M; 30F)	28 (5M; 23F)	48 (12M; 36F)	45 (13M; 32F)	161 (40M; 121F)
Total	77 (18M; 59F)	58 (10M; 48F)	99 (25M; 74F)	94 (27M; 67F)	328 (80M; 248F)

Table 1.
Participant distribution across experimental conditions

Note(s): M = Male, F = Female; sex distribution among groups is equivalent, $\chi^2 = 2.78$, $p = 0.90$; average age among groups is equivalent, $F = 0.52$, $p = 0.82$

including sex distribution ($\chi^2 = 2.78$, $p = 0.90$) and average age ($F = 0.52$, $p = 0.82$). Experimental groups were also equivalent in distribution with regard to frequency of social media usage (i.e. "Every hour," "Every two hours," "Twice a day" and "Once a day or less") ($\chi^2 = 26.51$, $p = 0.19$) and social media posting ($\chi^2 = 20.86$, $p = 0.47$). The groups also did not differ in terms of the mean value of brand familiarity ($F = 0.78$, $p = 0.61$), which was measured on Kent and Allen's (1994) three-item scale including "familiarity," "knowledgeable" and "prior experience."

Stimulus materials
To ensure the relevance of our contrived scenarios among our participants, Facebook was chosen as the social media platform context because of its widespread use and familiarity among Thais, particularly the younger age segments. Facebook allows for greater flexibility in terms of uploaded content, such as images and posts, compared to other popular platforms, like Twitter and Line, enabling the use of multiple elements to create a purposeful online social environment. Still images of Facebook pages have been employed in prior studies (e.g. Kusumasondjaja, 2018; Phua and Ahn, 2016) and have been regarded as valid proxies of an actual Facebook webpage (e.g. Anderson *et al.*, 2014; Orben *et al.*, 2018).

Since our study attempted to assess changes in consumer attitude toward a company in response to NeWOM and then toward a crisis response delivered by the company, three different sets of stimuli were designed: one set as manipulated scenarios of homophily, the second set as scenarios of NeWOM and the third set as scenarios of RES. The first stimuli exposed was intended to set the participant within a particular social media network membership, i.e. homophily. We designed Facebook discussion pages showing an image accompanied by messages posted by network members. *HHOM* was indicated by an image of a school campus along with message posts from students commenting on exams and campus life, whereas *LHOM* was depicted as an image of a young family accompanied by message posts from overseas Thai housewives commenting on parenting and immigration issues.

The second set of stimuli provided the NeWOM. We developed Facebook discussion pages with a post from a Thai celebrity being hospitalized after having been food-poisoned by eating at a well-known fast food restaurant chain. CON was manipulated using four message posts by consumers and varying the ratio of negative to positive opinions, a method applied by Lee and Cranage (2014). High CON was designed as three negative and one positive opinion, whereas low CON was operationalized as two negative and two positive opinions.

The third set of stimuli presented the company's public response to the food-poisoning incident posted by the restaurant manager. We manipulated two response strategies: an AC and a DF. The AC manipulation presented an apology, an offer to pay for the affected consumer's medical expenses, a full refund of the served dish, and recent improvements to the restaurant's hygiene standards. Alternatively, the DF manipulation included an assurance of the restaurant's hygiene standards, a rebuttal that the incident was not due to a failure on the part of the restaurant, and regret that the incident occurred. In terms of CON of the response strategy, high CON was manipulated as three agreeable comments and one disagreeable comment, whereas low CON comprised two agreeable comments and two disagreeable comments. The levels of homophily remained consistent among the three stimuli for each participant.

Data collection procedure
Prior to data collection, authorization from the appropriate higher education institutions were obtained. A trained researcher supervised and administered the random distribution of

questionnaire booklets in compliance with standard ethical research protocols. Data were collected within a three-week period, during the end of several regular scheduled classes. Participants were informed of the procedures of the study and were told that participation was voluntary. Upon receiving the booklet, the participants were instructed to complete Part I, which included questions about their usage of social media and their opinions and attitude toward the focal company (A_0), which was an actual well-known fast food restaurant chain in Thailand. Then, the participants were told to assume that they had just logged into their Facebook account. They were instructed to turn to the next page and to read through the Facebook screenshot that presented the homophily manipulation, then to provide responses to several questions for the manipulation check. After a brief pause, the participants were told to turn to the next page, and to read through the Facebook screenshot, which presented the NeWOM food-poisoning incident and to read the posts and comments (i.e. CON manipulation). They were then asked to provide responses to a set of questions for the manipulation check and their attitude toward the company (A_1). After a brief pause, the participants were instructed to turn to the next page, which presented a Facebook screenshot, and to read the posts and comments, which included the company response posted by the restaurant manager, the CON manipulation and the homophily image. This was followed by questions pertaining to attitude toward the focal company (A_2) and to items used for manipulation checks. The field researcher debriefed the participants to detect potential demand artifacts (Darley and Kim, 1993). The on-site procedure took around 20 min to complete.

Measures
HOM was conceptualized as the extent to which a person perceives others in the social network as being similar to him/herself. The extent of homophily was ascertained by three items adopted from previous studies (e.g. Lawrence *et al.*, 2013; McCroskey *et al.*, 1975). The participants were asked about the extent to which the online community members were "…similar to me," "…people I can relate to," and "…like me" on seven-point Likert scales.

CON was conceptualized as the extent to which a person perceives that online community members are in agreement on a topic. This was operationalized by the ratio of negative to positive comments embedded within the Facebook screenshot, with high consensus (HCON) presenting a disproportionate ratio, whereas low consensus (LCON) was operationalized by two negative and two positive comments. The participants' perceptions of CON were measured using three items adopted from Lee and Cranage (2014), including "A majority of the comments supported the original complaint about the restaurant," "Overall, consumer reviews indicate a negative impression of the restaurant" and "There is a great deal of agreement among all the consumer reviews, providing a bad impression of the restaurant," and were recorded on seven-point Likert scales.

RES) was conceptualized as the public message deployed by the firm to address the NeWOM incident. RES was operationalized by statements describing the restaurant manager's posted reply within the Facebook page. The AC level was designed as an apology and remedy (e.g. coverage of the incurred medical expenses and improvements to the company operations). The DF level was operationalized as a denial of responsibility (i.e. "The incident was not due to a failure on the part of our restaurant.") (see Appendix A for full statements). To assess perceptions of the response strategy, two items were adopted from Lee and Cranage (2014), including "The restaurant apologized for the problem" and "The restaurant admitted responsibility for the problem," and were recorded on seven-point Likert scales.

Attitude toward the company (A), the dependent variable of interest was measured (1) before reading the NeWOM incident (A_0), (2) after reading about a NeWOM incident

accompanied by member message posts (A_1), and (3) after exposure to the manager's response accompanied by consumer message posts (A_2). Four items on attitude toward the company were adopted from Mitchell and Olson (1981). The participants were asked to respond on a seven-point scale, with 1 being "Not at all" and 7 being "Extremely high," to items including "Like this restaurant very much," and to descriptions of the focal restaurant as "Good," "Pleasant" and "High quality." Changes in attitude toward the company were derived from the attitude mean differences (i.e. A_0, A_1, A_2).

Pretest and pilot study
Several steps were administered to validate the research instrument, as advocated by Craig and Douglas (2000). First, since existing measures were adopted for this study, a back-translation procedure from English to Thai language was conducted with two bilingual native Thai scholars to ensure conceptual and functional equivalence. Then, a pretest of the instrument was conducted with three Thai university students who were told the research objectives of this study and asked to complete the questionnaire while also marking ambiguous or confusing parts (i.e. images, words, phrases, etc.). The pretest was also used to assess and ensure the relevance and familiarity of our stimuli elements of the Facebook online platform and of the restaurant service experience. Based on the pretest results, minor modifications were made to improve the clarity of the instrument. Lastly, a pilot study of all eight versions of the research instrument involving the random assignment of 40 undergraduate students was implemented in compliance with the data collection procedure described earlier.

Scale reliability and validity
The responses were entered and analyzed using the Statistical Package for the Social Sciences (SPSS) v.17. To assess the adequacy of the multi-item constructs used in our study, we conducted several tests of construct reliability and validity. An exploratory factor analysis using principal component factor analysis of all measurement items to their respective construct generated factor loadings that are well above the recommended threshold of 0.70 (Nunnally and Bernstein, 1994). Internal consistency of the scales was achieved, with all Cronbach's alphas ranging from 0.82 to 0.95. Then, AMOS v.20 was used to run confirmatory factor analyses. The factor loadings range from 0.73 to 0.99 and are significant. Composite reliabilities of the scales range from 0.93 to 0.97. The average variance extracted (AVE) of *HOM* ($\rho_v = 0.81$), *CON* ($\rho_v = 0.85$), *RES* ($\rho_v = 0.94$), and A_0, A_1, A_2 ($\rho_v = 0.55$ to $\rho_v = 0.60$) are above the threshold of 0.50. Therefore, having established the reliability and validity of these measures, scale item scores were combined to produce aggregated measures of each construct. The results of these tests are reported in Table 2.

Manipulation checks
The participants in the *HHOM* group ($M_{HH} = 4.42$) perceived a statistically higher degree of homophily than the participants in the *LHOM* group ($M_{LH} = 2.20$; $t_{(309.99)} = -34.49, p < 0.05$). Thus, the homophily manipulation operated as intended. The participants in the *HCON* group ($M_{HC} = 5.51$) perceived a statistically higher degree of opinion agreement than the participants in the *LCON* group ($M_{LC} = 2.60$; $t_{(326)} = -35.49, p < 0.05$). Therefore, our manipulation of CON was valid. In addition, participants in the *DF* group had a significantly lower rating ($M_{DF} = 3.39$) than those participants of the *AC* group ($M_{AC} = 4.97$) of firm response strategy. The mean response strategy of these two groups were significantly different ($F_{(1, 423)} = 202.505, p = 0.00$). Hence, our manipulation of RES worked effectively. These descriptive statistics are summarized in Table 3.

	Number of items	Factor loadings	Cronbach's alpha	Composite reliability	Average variance extracted
Homophily (HOM)	3	0.91–0.95	0.95	0.97	0.91
Consensus (CON)	3	0.76–0.96	0.90	0.95	0.85
Response strategy (RES)	2	0.90–0.90	0.82	0.97	0.94
Attitude toward the brand (A_0)	4	0.72–0.89	0.87	0.93	0.55
Attitude toward the brand (A_1)	4	0.73–0.88	0.88	0.94	0.57
Attitude toward the brand (A_2)	4	0.76–0.90	0.90	0.95	0.60

Table 2.
Confirmatory factor analysis scale assessment

	HOM							
	HHOM						LHOM	
				CON				
	HCON		LCON		HCON			LCON
				RES				
Dependent variable	DF ($n = 37$)	AC ($n = 40$)	DF ($n = 30$)	AC ($n = 28$)	DF ($n = 51$)	AC ($n = 48$)	DF ($n = 49$)	AC ($n = 45$)
A_0	5.08	5.12	4.88	4.66	4.67	4.29	4.86	4.52
SD_0	0.84	0.84	1.03	1.01	1.09	1.05	0.93	1.21
A_1	4.71	4.66	4.75	4.49	4.44	4.03	4.78	4.53
SD_1	0.89	0.89	0.95	0.93	1.04	0.93	0.77	1.15
A_2	4.69	5.01	4.44	4.58	4.05	4.28	4.14	4.71
SD_2	0.94	0.76	0.97	0.84	1.19	0.90	1.15	1.16

Table 3.
Attitude toward the brand means and standard deviations

Analyses procedures
Repeated measures general linear modeling was used to test the five hypotheses of interaction effects. *F*-tests were used to detect whether the experimental groups differed and paired *t*-tests were used to evaluate mean changes in A_i. To test Hypotheses 1, 2 and 3, *HOM* and *CON* were selected as the independent variables and A_0, A_1, and A_2 were chosen as the dependent variable repeated measures. To test Hypotheses 4 and 5, *RES* was added into the model as a between-subjects factor. Our interpretation of the results was guided by procedures advocated in the statistics literature (Algina and Keselman, 1997; Keselman *et al.*, 2001).

Results and findings
The effects of homophily
Hypothesis 1a predicted that the impact of NeWOM on *A* would be stronger in the *HHOM* group than it would be in the *LHOM* group. The within-subjects effects indicate a significant main effect of *HOM* on *A* ($F_{(1,326)} = 41.91$, $p < 0.01$) and a significant *HOM*A* interaction effect ($F_{(1,326)} = 5.35$, $p < 0.05$). The between-subjects effects reveal a significant main effect of *HOM* on *A* ($F_{(1,326)} = 7.54$, $p < 0.01$, $\eta^2 = 0.02$). The results of pairwise comparisons of A_0 and A_1 reveal a larger drop in *A* in the *HHOM* group ($M_{HHA0\text{-}HHA1} = -0.30$, $\sigma_{HHA0\text{-}HHA1} = 0.05$, $p < 0.01$) compared to the decrease that occurred in the *LHOM* group ($M_{LHA0\text{-}LHA1} = -0.14$, $\sigma_{LHA0\text{-}LHA1} = 0.04$, $p < 0.01$). Thus, Hypothesis 1a is supported.

With respect to H1b, which predicted that the impact of RES on A would be stronger in the *HHOM* group compared to that of the *LHOM* group, the within-subjects effects show no significant main effect of *HOM* on A within the RES condition ($F_{(1,326)} = 1.31$, $p = 0.25$), but a significant *HOM*A* interaction effect ($F_{(1,326)} = 4.76$, $p < 0.05$). Tests of the between-subjects effects indicate a significant main effect of *HOM* on A ($F_{(1,326)} = 9.75$, $p < 0.01$, $\eta^2 = 0.03$). The results of pairwise comparisons between A_1 and A_2 reveal no significant change in A in the *HHOM* group ($M_{HHA1-HHA2} = 0.05$, $\sigma_{HHA1-HHA2} = 0.05$, $p = 0.25$), whereas there is a significant deterioration in A in the *LHOM* group ($M_{LHA1-LHA2} = -0.16$, $\sigma_{LHA1-LHA2} = 0.06$, $p = 0.01$). Thus, Hypothesis 1b is not supported.

The effects of consensus

Hypothesis 2a predicted that the effect of NeWOM on A would be stronger in the *HCON* group than it would be in the *LCON* group. The within-subjects effects indicate a significant main effect of *CON* on A ($F_{(1,326)} = 35.43$, $p < 0.01$, $\eta^2 = 0.10$) and a significant *CON*A* interaction effect ($F_{(1,326)} = 12.70$, $p < 0.01$, $\eta^2 = 0.37$). The between-subjects effects reveal no significant main effect of *CON* on A ($F_{(1,326)} = 0.75$, $p < 0.39$, $\eta^2 = 0.00$). The results of pairwise comparisons of A_0 and A_1 reveal a significant drop in A in the *HCON* group ($M_{HCA0-HCA1} = -0.21$, $\sigma_{HCA0-HCA1} = 0.11$, $p < 0.49$) compared to the nonsignificant decrease found in the *LCON* group ($M_{LCA0-LCA1} = -0.03$, $\sigma_{LCA0-LCA1} = 0.12$, $p = 0.80$). Thus, Hypothesis 2a is supported.

Hypotheses 2b posited that the effect of *RES* on A would be stronger in the *HCON* group than it would be in the *LCON* group. Tests of the within-subjects effects show a marginal significant main effect of *CON* on A within the RES condition ($F_{(1,326)} = 3.00$, $p = 0.08$, $\eta^2 = 0.01$), but a significant *CON*A* interaction effect ($F_{(1,326)} = 5.84$, $p < 0.02$, $\eta^2 = 0.02$). The results of the between-subjects effects indicate no significant main effect of *CON* on A ($F_{(1,326)} = 0.91$, $p = 0.34$, $\eta^2 = 0.00$). The results of pairwise comparisons between A_1 and A_2 reveal no significant change in A in the *HCON* group ($M_{HCA1-HCA2} = 0.03$, $\sigma_{HCA1-HCA2} = 0.07$, $p = 0.61$), whereas there is a significant worsening of A in the *LCON* group ($M_{LCA1-LCA2} = -0.20$, $\sigma_{LCA1-LCA2} = 0.07$, $p < 0.01$). Thus, Hypothesis 2b is not supported.

The effects of high homophily vs high consensus

We predicted in Hypothesis 3a that the influence of NeWOM on A would be stronger in the *HHOM* group than that of the *HCON* group. The within-subjects effects indicate a significant main effect of A ($F_{(1,324)} = 38.67$, $p < 0.00$, $\eta^2 = 0.11$), a significant *CON*A* interaction effect ($F_{(1,324)} = 12.06$, $p < 0.01$, $\eta^2 = 0.04$), and a significant *HOM*A* interaction effect ($F_{(1,324)} = 4.41$, $p < 0.04$, $\eta^2 = 0.01$). There is no three-way *HOM*CON*A* interaction effect ($F_{(1,324)} = 0.19$, $p = 0.66$, $\eta^2 < 0.01$). The between-subjects effects reveal no significant main effect of *CON* on A ($F_{(1,324)} = 0.75$, $p < 0.39$, $\eta^2 = 0.00$), a significant main effect of *HOM* ($F_{(1,324)} = 6.68$, $p = 0.01$, $\eta^2 = 0.02$) and a significant interaction effect of *HOM*CON* on A ($F_{(1,324)} = 5.64$, $p < 0.05$, $\eta^2 = 0.02$). The pairwise comparisons of A_0 and A_1 indicate that the *LHOM*HCON* group prompted a larger significant drop ($M_{HHxLH, A0-A1} = -0.25$, $\sigma_{HHxLH, A0-A1} = 0.06$, $p < 0.01$) than the decrease in the *HHOM*LCON* group ($M_{HHxLC, A0-A1} = -0.15$, $\sigma_{HHxLC, A0-A1} = 0.08$, $p < 0.05$). As such, the results do not provide support for Hypothesis 3a.

With regard to Hypothesis 3b, we predicted that the impact of *RES* on A would be more pronounced in the *HHOM* group than it would be in the *HCON* group. The within-subjects effects show a significant main effect of A ($F_{(1,324)} = 1.90$, $p = 0.17$, $\eta^2 = 0.00$), a significant interaction effect of *CON*A* ($F_{(1,324)} = 5.68$, $p < 0.02$, $\eta^2 = 0.02$), and a significant interaction effect of *HHOM*A* ($F_{(1,324)} = 3.96$, $p < 0.05$, $\eta^2 = 0.01$). There is no three-way interaction effect of *HHOM*HCON*A* ($F_{(1,324)} = 0.40$, $p = 0.53$, $\eta^2 < 0.00$). The between-subjects effects reveal no significant main effect of *CON* on A ($F_{(1,324)} = 0.41$, $p = 0.52$, $\eta^2 = 0.00$), but a significant main effect of *HOM* ($F_{(1,324)} = 8.70$, $p < 0.01$, $\eta^2 = 0.03$) and a significant interaction effect of

$CON*HOM$ on A ($F_{(1,324)}$ = 7.00, $p < 0.01$, η^2 = 0.02). The pairwise comparisons indicate that the difference between A_1 and A_2 of the $HCON*LHOM$ group ($M_{\text{HCxLH, A0-A1}}$ = −0.08, $\sigma_{\text{HHxLH, A1-A2}}$ = 0.09, p = 0.36) is smaller than that of the $HHOM*LCON$ group ($M_{\text{HHxLC, A1-A2}}$ = −0.12, $\sigma_{\text{HHxLC, A0-A1}}$ = 0.12 p = 0.30). As such, Hypothesis 3b is supported. These results of H3 are shown in Figure 2, Panel C.

Firm crisis response and attitude toward the company

Three-way repeated measures ANOVA (RES x HOM x CON as between-subjects factors; A as within-subjects repeated measures) was used to test Hypotheses 4 and 5. H4 posited that an AC would facilitate a stronger attitude recovery in *HHOM and HCON* groups than a DF. Tests of within-subjects effects reveal a significant interaction effect for $CON*A$ ($F_{(1,320)}$ = 5.84, $p < 0.05$, η^2 = 0.02), $HOM*A$ ($F_{(1,320)}$ = 3.87, $p < 0.05$, η^2 = 0.00), and $RES*A$ ($F_{(1,320)}$ = 37.60, $p < 0.01$, η^2 = 0.11). Between-subjects tests report a significant main effect of HOM on A ($F_{(1,320)}$ = 8.46, $p < 0.01$, η^2 = 0.03), indicating that the effect of RES on A in the $HHOM$ group is statistically different from the effect in the $LHOM$ group. There is also a significant interaction effect of $HOM*CON$ ($F_{(1,320)}$ = 7.02, $p < 0.01$, η^2 = 0.02). The results of pairwise comparisons of A_1 and A_2 indicate a significant difference in the $HHOM*HCON*AC$ group ($M_{\text{HH*HC*AC, A1-A2}}$ = −0.36, $\sigma_{\text{HH*HC*AC, A1-A2}}$ = 0.13, $p < 0.05$), which is larger than the insignificant difference found in the $HHOM*HCON*DF$ group ($M_{\text{HH*HC*DF, A1-A2}}$ = −0.02, $\sigma_{\text{HH*HC*AC, A1-A2}}$ = 0.13, $p < 0.05$). Thus, Hypothesis 4 is supported.

Hypothesis 5 posited that a DF would have a stronger impact on A in the $LHOM$ and $LCON$ group, than would an AC. The pairwise comparisons of A_1 and A_2 of the $DF*LHOM*LCON$ group show a significant decrease ($M_{\text{DF*LH*LC, A1-A2}}$ = −0.64, $\sigma_{\text{DF*LH*LC, A1-A2}}$ = 0.12, $p < 0.05$), while in contrast, the $AC*LHOM*LCON$ group shows no significant change ($M_{\text{AC*LH*LC, A1-A2}}$ = 0.18, $\sigma_{\text{AC*LH*LC, A1-A2}}$ = 0.12, p = 0.14). Thus, Hypothesis 5 is not supported. The results of H4 and H5 are depicted in Figure 2.

Discussion

This study set out to examine consumer attitude toward a company experiencing the impact of NeWOM and amidst the company's attempt to recover lost brand favor within the context of online social media. We created contrived experimental conditions of NeWOM and of RES that enabled us to focus particularly on the online social media network characteristics of homophily and CON, which have not yet been examined concurrently despite their acknowledged influence in traditional social network settings, e.g. small groups, political campaigns, work units. This study and the findings yield theoretical contributions and practical implications, which are elaborated in the sections that follow.

Theoretical contributions

Although prior research on online social media networks has explored the antecedents of consumer information processing (e.g. Brown *et al.*, 2007) and the spread of eWOM (e.g. Sohaib *et al.*, 2019), few marketing studies have examined the influences of multiple characteristics of online social media networks on consumer reactions to NeWOM (e.g. Kim *et al.*, 2018b). Our study identifies the main and interaction effects of online social media network homophily and CON, which, to the best of our knowledge, no empirical study has examined simultaneously. Prior studies on NeWOM have investigated its impact from a static or cross-sectional approach (e.g. Chang *et al.*, 2015; Lee and Cranage, 2014). This study, however, empirically traces changes in consumer attitudes across two sequential social network information-processing episodes, which provides a deeper understanding of how
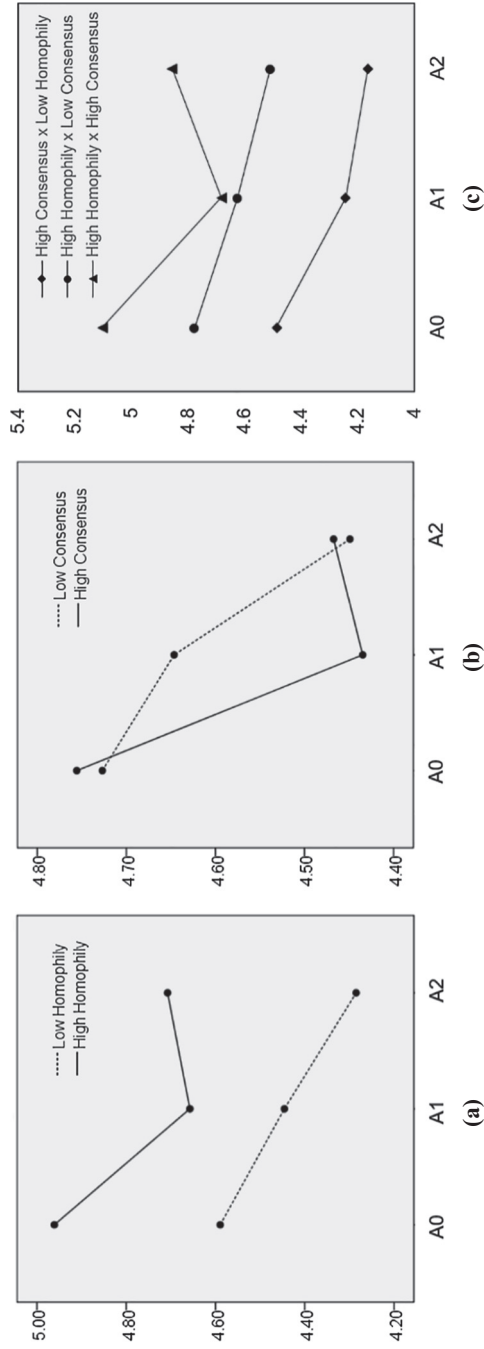
Note(s): All data meet assumptions of sphericity, with all $p > 0.05$. Levene's tests were not significant at the $p = 0.05$ level of significance. Equal variances were assumed for within-subjects and for between-subject tests

Figure 2.
Main and interaction
effects of homophily
and consensus on
consumer attitude
toward the brand

and to what extent consumer predispositions toward companies change. Additionally, this study was conducted among a sample of Thai consumers, extending social network theory to an Asia emerging market context.

The findings here also contribute to the extant literature. We find that *HHOM* reduces the detrimental impact of NeWOM on consumer attitude toward the company, more than does *LHOM*. This finding is in line with previous eWOM studies that report that *HHOM* has a greater influence on consumer decision-making than *LHOM* sources (Steffes and Burgee, 2009). In addition, this finding supports the notion of homophily's amplified affect (Pace *et al.*, 2017) and the concept of the "in-group" feature proposed by McPherson *et al.* (2001). However, in the midst of a firm's crisis response, *HHOM* does nothing to bring about significant brand recovery while a network of *LHOM* induces further loss of brand favorability. This study also reveals that HCON of NeWOM elicits a substantial loss in brand image, which is consistent with the findings of Lee and Cranage (2014) from their sample of consumers in the US However, high CON does nothing to regain brand favorability in the wake of a crisis response.

Between these two network characteristics, we find in the episode of NeWOM that high CON has greater social influence on consumer attitude than does *HHOM*. The "wisdom of the crowd", rather than perceived connections of similarity, weighs relatively greater on information processing and attitude formation, which is consistent with the findings of Lee and Cranage (2014) and is in contrast with those found by Chaiken (1980) in her study involving undergraduate students in the US In the context of RES, we find support that *HHOM* brings about a relatively greater attitudinal change than does high CON. However, it is important to note that this attitude change does not lead to brand attitude recovery, but instead, worsens brand favorability further. Additionally, we find that when both *HHOM* and high CON are present in a social media network, the combined affect results in a slight gain in brand liking, which is insufficient to fully restore the brand to its initial level of favorability among consumers

Regarding consumer attitude changes after a firm provides a response, the findings indicate that apologetic and accountable responses increase brand favorability when consumers' perception of *HHOM* prevails. However, optimal brand recovery occurs when both *HHOM* and high CON are present (Figure 3). Alternatively, attitude change following the firm's denial of responsibility merely further deteriorates brand liking and reputation when the online social media network is low both in homophily and in consensus. These findings are consistent with those of Jin *et al.* (2014), whose study involved manipulated crises of internal origin and a sample of college students in the US These findings in sum, are indicative of the complex interplay among social network characteristics, NeWOM and firm comm CON unication response in influencing consumers' perceptions of a company and brand. Importantly, the results demonstrate the significant loss in brand reputation that a firm can experience and the challenges managers would face in attempting to regain brand favorability.

Managerial implications
This study provides three practical contributions for managers in Thailand who are using Facebook to interact with young Thai consumers. First, we provide evidence that NeWOM in Facebook may do harm to a popular favored brand, but when the Facebook page membership is diverse in terms of demographic characteristics, i.e. *LHOM*, and in terms of opinions on the issue, i.e. low CON, the consumer's initial attitude toward the company may remain unchanged (see Figure 3, Panel D). Therefore, we suggest for managers to consider demographic diversity in its Facebook page membership. However, cultivating diversity of opinions would seem to be a more challenging task for managers to accomplish, as Facebook, as well as other online social network services, apply algorithms that analyze their content in
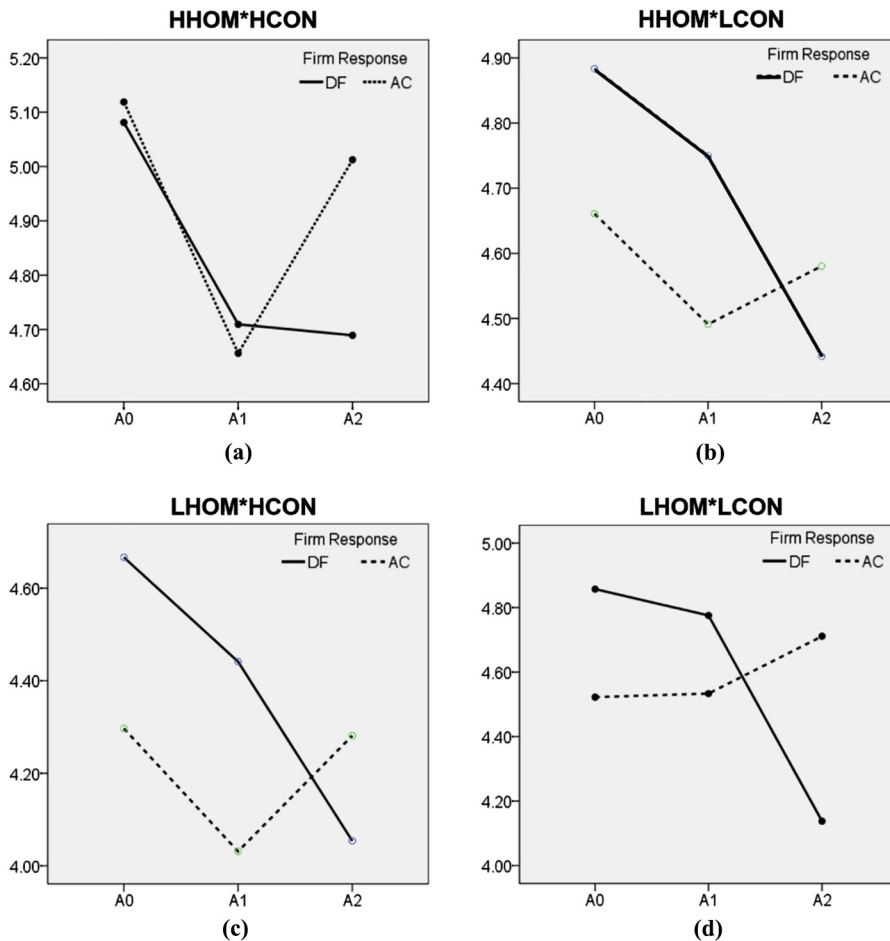
HHOM*HCON (a)

HHOM*LCON (b)

LHOM*HCON (c)

LHOM*LCON (d)

order to manipulate sequential placement of user-generated posts that are viewed by particular users (Kanuri *et al.*, 2018). To cope with this, we recommend managers to neutralize potential NeWOM by establishing webcare teams dedicated to actively searching the web and monitoring their own social media to address comments and to interact online with complaining customers (Van Noort and Willemsen, 2012). Also, managers should consider the use of supervised machine learning, which categorizes eWOM into PeWOM and NeWOM and determines which eWOM messages require a response (Vermeer *et al.*, 2019). Early detection of disgruntled consumers and resolution of their issues could prevent the accumulation and escalation of NeWOM that could taint a company's image.

Second, our results show that our sample of young consumers are more favorably receptive to the firm's AC to the NeWOM incident, particularly when they are among their "similar" peers and there is high agreement among them in the Facebook page (see Figure 3, Panel A). Thus, we recommend for managers to first consider a thoughtful accommodative strategy to communicate to such consumers, as this leads in the direction toward brand recovery. It is worth noting that it is only in conditions of *LHOM* in which consumer attitude toward the company were fully regained to the level prior to the NeWOM incident. Thus,

within a Facebook page of *HHOM*, managers may need to expend more time and effort for the company to fully regain consumer trust and confidence.

Third, we find that a DF does nothing to restore the brand's image, irrespective of the extent of homophily and CON characteristics of the Facebook site. In fact, the results show that denial of responsibility for an incident that could have been prevented by the firm simply increases negative sentiment, further damaging the brand image. Marketers should take caution of the risks in deploying a DF, as it may stimulate further NeWOM, rouse consumer defection, and ultimately reduce firm revenue and profits (Chang *et al.*, 2015).

Limitations and suggestions for future research

There are several limitations that need to be addressed in future studies. First, the participants in our study were young Thai consumers and the social network platform applied was Facebook. Therefore, caution should be taken to generalize the results found here. Future research could pursue multiple studies that examine our hypotheses on other consumer segments, such as those that are older and/or affluent. Future studies could also involve other widely used social media platforms, such as Instagram or Twitter.

Second, this study employed manipulations of social network characteristics depicted in Facebook discussion page static screenshots to avoid potential confound effects during the experiment. Although recent studies have found such screenshots as adequate proxies of actual Facebook pages (i.e. Orben *et al.*, 2018; Trifiro and Gerson, 2019), the discussion pages that we designed, in particular the *LHOM* manipulation, may or may not be actually visited by young Thai consumers. Future research could deploy more realistic online social media which better simulates the relational characteristics so that interaction effects and consumer perceptions can be examined more closely. Future studies could also apply social network theory to include other critical online social influences, such as social ties, social position in the network, and centrality. While such influences have been examined in traditional network settings, much less research has been done in the context of online social media networks, where consumers have much greater reliance on as a source of general and product information. Additionally, future research could explore the potential moderating roles of consumer characteristics in the processing and evaluating of NeWOM information. For example, examining the influences of consumer involvement, brand familiarity, and consumer–brand relationship, which were controlled in our study, may provide insights on whether the extent of attitude change toward a brand varies among consumers of different traits and of varying brand predispositions.

Third, this study employed a life-threatening incident of internal origin (i.e. food poisoning that could be perceived as preventable by the firm) that instigated NeWOM to examine the impact of online social media network influences. Future studies could explore crises situations of lower severity to assess the nature of consumer information processing. The essence and vividness of NeWOM may have a differential influence on consumer attitudes. While the findings here are consistent with the suppositions of Kim *et al.* (2009), future studies could examine "incident severity" as a possible moderating variable on the relationship between social network characteristics and consumer attitudes. Moreover, while this study examined consumer attitude change as influenced by only two response strategies (i.e. defensive and accommodative), future research could investigate a broader range of RES strategies to gain more insights on the consequences of other remedial approaches.

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Further reading

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Appendix A

Operationalization of firm response strategies (English translation)

Accommodative response strategy
According to the incident on August 31, some customers have complained of acute food poisoning from eating at our restaurant. We confirm that all of our served dishes are hygienic and meet standard quality. We sincerely apologize for the incident that may have affected some customers. We will be responsible for the incurred medical expenses and give a full refund of the served dish. Please be assured that we aim to provide the best service and high-quality dishes to our customers. We conducted a renovation of our kitchen and changed the suppliers of our ingredients. We have reopened and are ready to serve our beloved customers.

Defensive response strategy
According to the incident on August 31, some customers complained of acute food poisoning from eating at our restaurant. We confirm that all of our served dishes are hygienic and meet standard quality. We strictly follow our standards in cooking and cleaning. All ingredients are up to specified standards. The incident was not due to a failure on the part of our restaurant, so we are not obligated to respond to the situation. Nonetheless, we regret that the incident occurred.

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