The impact of accessibility of mobile devices on the intention to post online reviews

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Abstract

Purpose – The purpose of this paper is to investigate how the characteristic of mobile devices, particularly high accessibility, influences a consumer's intention to post an online review depending on the valence of consumption experiences.

Design/methodology/approach – This paper employs a between-subject design of experimental study based on different scenarios with 378 participants. A pretest is conducted to confirm that participants perceive the experimental scenarios as intended prior to proceeding with the main experimental study.

Findings – The authors' experimental analysis shows that the intention to post a review of extreme positive and negative experiences is significantly higher when the level of accessibility for review-posting is high. By contrast, the intention to post a review of neutral consumption experiences is neither higher nor lower regardless of the level of accessibility.

Originality/value – The findings of this paper contribute to a better understanding of online reviews by demonstrating how high accessibility for review-posting have differential influences on the intentions to post online reviews depending on the valence of consumer experiences. The findings provide important theoretical and managerial implications.

Keywords Online review, Mobile devices, Accessibility, Social exchange theory, Review-posting behavior

Paper type Research paper

1. Introduction

Online reviews are one of the easily accessible information sources for consumers (Agnihotri and Bhattacharya, 2016), and they acquire information from the online reviews to reduce potential risks when making purchase decisions (Nusair *et al.*, 2013). This results in that online reviews significantly influence other consumers' purchase decisions (Jiménez-Barreto and Campo-Martínez, 2018; Kostyra *et al.*, 2016; Burch *et al.*, 2018; Kim *et al.*, 2020). Online reviews can also help firms improve quality of products or services by identifying consumer complaints (Fuentes-Medina *et al.*, 2018).

The volume of online reviews is on the rise with the advancement of mobile technologies (Agnihotri and Bhattacharya, 2016; Mariani *et al.*, 2019) because of the distinguishing characteristics of mobile devices which is of greater accessibility compared to non-mobile devices (Hoffman and Novak, 2012; Shankar and Balasubramanian, 2009; März *et al.*, 2017; Ransbotham *et al.*, 2019; Kim *et al.*, 2020). It enables customers to post online reviews during

or immediately following consumption experiences (Ransbotham *et al.*, 2019). Since mobile devices have different characteristics than nonmobile devices, mobile reviews have also been found to have to be different. For example, given the development of mobile technology, online reviews posted via mobile devices tend to exhibit consumption recency and provide a more accurate representation of the reviewer's experiences (Burtch and Hong, 2014). More recently, differences have been noted between mobile reviews and nonmobile reviews in terms of their content and the perceived value of the content to consumers (Ransbotham *et al.*, 2019).

The review-posting behaviors have been explained with the social exchange theory in the extant literature (Kankanhalli *et al.*, 2005; Lee *et al.*, 2006; Liang *et al.*, 2008; Osatuyi 2013; Wu *et al.*, 2014; Kim *et al.*, 2020). The theory posits that a self-interest analysis of the costs and benefits is important for individuals to decide on whether they share information or not (Blau, 1964; Emerson, 1962; Homans, 1958; Molm, 2001). That is, when involved in the social exchange process, individuals try to maximize their benefits while minimizing their costs (Molm, 1997, 2001). In this regard, drawing on the theory, it is found that mobile devices influence the perceived costs in terms of time as high accessibility reduces the time spent to access the devices for review-posting (Kim *et al.*, 2020). That is, as the benefits of posting reviews are different depending on the valence of the consumption experiences (Constant *et al.*, 1996; Yoo and Gretzel, 2008; Hennig-Tuarau *et al.*, 2004), the high accessibility of mobile devices which is found to reduce the cost for review-posting is expected to result in different levels of review-posting intentions based on the cost-benefit analysis of social exchange theory. In this light, the main objective of the current study is to examine how the high accessibility of mobile devices affect review-posting behaviors, particularly intentions to post online reviews, depending on the valence of different consumption experiences. To this end, we develop two hypotheses based on the social exchange theory.

Prior studies have also empirically attempted and confirm the social exchange theory's self-interest analysis of the costs and benefits in online environment (e.g. Yan *et al.*, 2016; Surma, 2016; Liu *et al.*, 2016). However, existing literature mainly focuses on the effect of increasing benefits such as financial incentives during the exchange process on review-posting behaviors (e.g. Chen *et al.*, 2010; Fradkin *et al.*, 2015; Cabral and Li, 2015; Burtch *et al.*, 2018). Literature that pays attention to the cost aspect is very limited. Recently, Kim *et al.* (2020) show the changes in perceived costs for review-posting in terms of time and cognitive efforts can make differences in overall distributions of mobile reviews and non-mobile reviews for the same consumption experiences.

To test the proposed hypotheses, we conduct an experimental study by employing a scenario research method to manipulate the valence of experiences and the level of accessibility of devices to post online reviews. The results show that the intention to post a review of extreme positive and negative consumption experiences is higher when the level of accessibility for review-posting is high. On the contrary, the intention to post a review of neutral consumption experiences is neither higher nor lower regardless of the level of accessibility.

We believe that this study contributes to extant literature by demonstrating how the characteristic of mobile devices, particularly high accessibility, changes the review-posting behavior of consumers in terms of the intention to post a review. This can provide a better understanding of the contextual impacts on review-posting behaviors of consumers. In addition, our findings can provide useful insights for practitioners on developing strategies to encourage consumers to post more helpful reviews, resulting in increasing the value of firms. In the next section, we cover the theoretical background of this study. Following this, we develop the hypothesis and present the experimental study and its results. Finally, we discuss the contributions of our findings, the limitations of this study, and suggestions for future research.

2. Theoretical background and hypothesis development

2.1 Social exchange theory and online reviews as information sharing behavior
Social exchange theory explains reciprocal behavior in human beings (Blau, 1964). It suggests that individuals contribute and exchange their knowledge with others, with the expectation of some future return (Lee *et al.*, 2006; Kankanhalli *et al.*, 2005). Social exchanges differ from economic exchanges in that the obligations to return in the social exchange are not clearly specified (Kankanhalli *et al.*, 2005). Therefore, social exchange assumes relatively long-term exchange relationships of interest, contrary to on-off exchange relationships (Molm, 1997) as is the case with economic exchanges.

Previous studies have tried to explain the information-sharing behavior of consumers in the online environment by employing social exchange theory (Kankanhalli *et al.*, 2005; Lee *et al.*, 2006; Liang *et al.*, 2008; Osatuyi, 2013; Wu *et al.*, 2014; Kim *et al.*, 2020). Consumers share their consumption experiences and knowledge of certain products or services with other consumers through social exchanges. Consumers who provide the information expect that they can obtain information from others via social exchange relationships.

According to social exchange theory, individuals regulate their social exchange behaviors based on a self-interest analysis of the costs and benefits (Blau, 1964; Emerson, 1962; Homans, 1958; Molm, 2001). That is, when involved in the social exchange process, they try to maximize their benefits while minimizing their costs (Molm, 1997, 2001). Prior studies empirically confirm the social exchange theory's self-interest analysis of the costs and benefits in online communities such as online health communities, Facebook pages and online micro-blogging (e.g. Yan *et al.*, 2016; Surma, 2016; Liu *et al.*, 2016). These benefits can be either intrinsic or extrinsic (Vallerand, 1997). According to previous studies, the intrinsic benefits of online information sharing are the enjoyment drawn from helping others and self-gratification borne of reaffirming one's own intelligence. The extrinsic benefits are reward, image/reputation and reciprocity (Kankanhalli *et al.*, 2005; Wasko and Faraj, 2005; Lee *et al.*, 2006). The costs incurred during the exchange process include the time and effort spent on accomplishing the purpose of the exchange process (Molm, 1997; Kankanhalli *et al.*, 2005; Lee *et al.*, 2006).

Thus, the decision to share information hinges on the benefits derived from the information sharing process (Osatuyi, 2013). For example, financial incentives are found to be effective in motivating customers to provide feedback on eBay (Cabral and Li, 2015). The provision of financial incentives, other benefits and existing social norms, each have differential effects on customers' review posting patterns, in terms of both review volume and review length (Burtch *et al.*, 2018).

Drawing on social exchange theory and prior studies, we also expect that changes in both perceived costs and benefits in posting online reviews can lead consumers to exhibit different review patterns. Consequently, to regulate review-posting behavior, it is not only important to maximize benefits, but also to minimize costs. However, existing literature mainly focuses on the effect that increasing benefits during the exchange process has on review-posting behaviors (e.g. Chen *et al.*, 2010; Fradkin *et al.*, 2015; Cabral and Li, 2015; Burtch *et al.*, 2018), and literature that pays attention to the cost aspect is very limited (e.g. Kim *et al.*, 2020). In this regard, we examine how reduced time costs due to the accessibility of mobile devices affect review-posting behaviors, particularly intentions to post online reviews.

2.2 Hypothesis development
The users of mobile devices can post online reviews regardless of location at any time they want, providing the benefit of immediacy (Ransbotham *et al.*, 2019; Kim *et al.*, 2020). As the characteristics of mobile devices can have potential impacts on the review posting behaviors of consumers, researchers have paid attentions to the influences of mobile devices. For

example, Mariani *et al.* (2019) find that the valence of mobile reviews is higher than the valence of non-mobile reviews. Kim *et al.* (2020) find that the relative ratio of distribution for mobile reviews are more extreme compared to those for non-mobile reviews. Other studies have paid attentions to difference in perceived helpfulness for mobile and non-mobile reviews and found that mobile reviews are perceived less helpful than nonmobile reviews (Lurie *et al.*, 2014; März *et al.*, 2017).

The one of the more distinctive characteristics of mobile devices, the high accessibility, is found to reduce the perceived cost of review posting, as it can save consumers the time required to access a review site when compared to low accessibility of nonmobile devices (Kim *et al.*, 2020). Earlier studies examine the impact of the high accessibility of mobile devices in this regard. For example, studies have examined the effects of high accessibility of mobile devices on the contents of online reviews (Burtch and Hong, 2014; Lurie *et al.*, 2014). They find that online reviews submitted via a mobile device tend to contain signs of consumption recency and provide a more accurate representation of the reviewer's experiences. More recently, Ransbotham *et al.* (2019) find that mobile review contents are more affective and more concrete. By contrast, our focus is on examining how consumers' intention to post reviews using mobile devices is different from when they use non-mobile devices, due to the differing levels of accessibility in each case.

According to the previous studies, online reviews might not be representative of the general consensus due to the under-reporting bias (Hu *et al.*, 2006; Koh *et al.*, 2010). This bias indicates that consumers with extreme satisfaction or dissatisfaction are highly motivated to voice their opinions. This causes the distribution of online reviews to be asymmetrically J-shaped by pushing review scores to extremes (Hu *et al.*, 2006, 2009; Koh *et al.*, 2010).

Drawing on social exchange theory, we expect that consumers with extreme consumption experiences are more motivated to post reviews because they can benefit from posting about those extreme experiences. This is because people pay more attention to extreme reviews compared to moderate reviews (Hu *et al.*, 2009), and they find reviews of extreme experiences more useful and helpful (Pavlou and Dimoka, 2006; Forman *et al.*, 2008; Mudambi and Schuff, 2010). This provides the reviewers with the benefit of gaining reputation or knowledge self-efficacy and confirms their ability to provide information that is considered useful (Constant *et al.*, 1996). Furthermore, posting extremely positive or negative reviews, compared to posting moderate reviews, can also reward or punish companies by recommending in their favor or warning other consumers (Yoo and Gretzel, 2008; Hennig-Tuarau *et al.*, 2004).

As more benefits from review posting will accrue as a result of consumer posts that contain extreme reviews, we expect that the perception of reduced cost in terms of time to post a review due to the high accessibility of mobile devices may have differential impacts on consumers with different satisfaction levels. This is because, according to social exchange theory, information-sharing behavior in the social exchange process is dependent on the analysis of costs and benefits. The perception of reduced cost in terms of time is constant for all potential reviewers, but the perceived benefits of review posting are higher for customers with extreme experiences than for those with moderate experiences. We expect this will likely lead consumers with extreme experiences to show higher intentions to post reviews when they use mobile devices compared to non-mobile devices. Thus, we hypothesize the following.

H1. Consumers with extremely positive or negative consumption experiences will show higher intentions to post reviews due to the high accessibility for review-posting.

On the contrary to the consumers with extreme experiences, consumers with moderate experiences are less motivated to exert the time and effort to post reviews about their experiences (Hu *et al.*, 2009). This results in a low relative ratio of review ratings that fall in-between, compared to that of clearly positive or negative review ratings. Since consumers with moderate experiences are not sufficiently motivated to post reviews, it is expected that

the time reduced due to the high accessibility of mobile devices does not have a significant impact on their behavior. It is because the consumers with moderate experiences does not still clearly see the benefits of posting online reviews as a result of the cost and benefits analysis in spite of reduced costs in terms of time for review-posting. That is, the high accessibility of mobile devices is not likely to lead consumers with moderate experiences to show higher or lesser intentions to post a review compared to when they use non-mobile devices. Therefore, we propose the following hypothesis:

H2. Consumers with moderate consumption experiences will not show different levels of intentions to post reviews regardless of the level of accessibility for review-posting.

Figure 1 shows the research framework of the current study in that how the high accessibility for review-posting result in different levels of intentions for review-posting depending on the valence of consumer experiences based on the self-interest analysis of the costs and benefits for review-posting.

3. Method
The main objective of the experiment is to investigate the differential impact of accessibility on the review posting intentions of consumers with extreme consumption experiences compared with that of consumers with neutral consumption experiences. To this end, we needed to ensure that we isolate the effect of different levels of accessibility on review-posting intentions. Thus, we employed a scenario method so that we can manipulate only the level of accessibility and the valence of consumption experiences. It allowed us to rule out any possible compounding effects on review-posting intentions, which can be caused by other characteristics of mobile devices. We first conducted the pre-test to confirm participants can perceive the scenarios of different consumption experiences and different levels of accessibility as intended. Then, we proceeded to the main test to show the differential effects of accessibility on review-posting behaviors depending on the valence of consumption experiences.

3.1 Pretest
We used a 3 (positive vs. negative vs. neutral hotel experience) * 2 (high vs. low accessibility) between-subjects design. In order to manipulate three types of hotel experiences, we adapted scenarios for different valences of hotel experiences based on the previous literature (Kim *et al.*, 2020). Before proceeding with the main study, a pretest was conducted to ensure that respondents clearly understood the experimental scenarios. As shown in Table 1, each of the three scenarios is similar in length, so the amount of content delivered is not significantly different. A total of 49 respondents were recruited for the pretest on Amazon Mturk (male: 69%, female: 31%, age: 20s = 24.5%, 30s = 49.5%, 40s = 13.7%, over 50s = 12.3%). Amazon
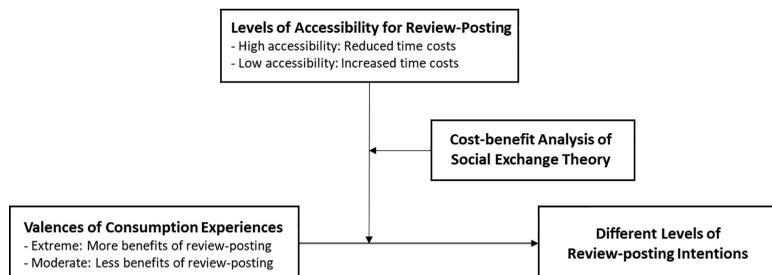

Figure 1.
Research framework

Positive experience	You stay at a hotel during a long-planned family trip, so you arrive at the hotel enthusiastically. The front desk staff welcomes you and the staff is very kind and helpful. Fortunately, the hotel upgrades the room even if it is the peak season right now. When you go to the room, they prepare a plate of fresh fruits on the table with a hand writing welcome message card. The room is really clean, spacious, and the amenities in bathroom are a premium brand that you like The next day in the morning, you go downstairs to have a hotel breakfast. The restaurant is next to a hotel garden so you enjoy flowers and trees. Of course the breakfast is delicious, too. Besides, they pack bread and fruit for your lunch. It is a very pleasant and satisfying hotel. Everything you and your family experience at this hotel far exceeds your expectation
Negative Experience	You stay at a hotel during a long-planned family trip, so you arrive at the hotel enthusiastically. However, unfortunately, since the room you originally booked is under construction, the hotel gives you another type of room. When you go to the room, the room smells of cigarettes. Besides, the bathroom is very small and not clean. You called the front desk to complain and change the room, but the staff at the front desk rudely explained that they said that they could not change the room because the hotel is full. So, only if you pay more, they can upgrade your room. You are very disappointed to stay in and have no choice but to stay in a haunting and outdated room The next day in the morning, you go downstairs to have a hotel breakfast. The restaurant is next to a construction site so it is noisy and the view is bad. It must be the worst hotel ever. Everything your family experience at this hotel was far below your expectations
Neutral Experience	You stay at a hotel during a long-planned family trip, so you arrive at the hotel enthusiastically. The front desk staff helps you to check into the room that you made a reservation for. When you enter your room, you find it suitably sized. It also matches the pictures shown online when you first booked the room. The bathroom is a bit small, but adequate. Amenities are not luxurious brands, but they provide everything you need and the quality is okay The next morning, you go downstairs to have breakfast at the hotel. Similar to most hotels, the hotel restaurant serves several kinds of pasties and fruits. The view is not particularly good, but the food quality is okay. The hotel's quality is just right for the price. Your experience at the hotel is neither satisfied nor dissatisfied
High Accessibility	After you checked-out, you got a message from the hotel booking agency, asking you to post a review about the hotel. You are able to post a review at any time you wish no matter where you are
Low Accessibility	After you checked-out, you got a message from the hotel booking agency, asking you to post a review about the hotel. You are unable to post a review right now. It will take quite a long time before you are able to post a review

Table 1.
Experimental scenarios

MTurk is a crowdsourcing marketplace that offers researchers access to a diverse, on-demand survey panels through a flexible user interface. Accordingly, researchers provide panels who participate in their surveys with small monetary incentives. Since Amazon MTurk has been often used for data collection, it is important to confirm whether the data collected from Mturk is credible in a field of academic research. In this regard, several previous studies confirm the reliability of the data source. For example, Buhrmester *et al.* (2016) and Holden *et al.* (2013) confirmed that data collected through MTurk is reliable and have strong test-retest reliability.

Each participant reads all three scenarios for hotel experience (positive, negative, and neutral experience) and answered questions about the extent to which they perceive the scenarios as positive or negative on a seven-point Likert scale (ranging from extremely negative = 1 to extremely positive = 7). Additionally, they read two scenarios for accessibility (high and low) and answered questions about the extent to which they perceive the scenarios as highly or rarely accessible.

As shown in Tables 2 and 3, the results show that respondents could successfully imagine the positive or negative experiences of the hotel services and the level of accessibility to post a review. The result of Levene's test shows the null hypothesis that the error variance of the dependent variable is equal across groups is not rejected ($p = 0.169$). Accordingly, a one-way analysis of variance yielded a main effect for the valence of experience, $F(2, 144) = 490.747$, $p < 0.00$, indicating a significant difference between positive experiences ($M = 6.65$, SD $= 1.56$), negative experiences ($M = 1.52$, SD $= 1.77$), and neutral experiences ($M = 4.57$, SD $= 1.65$).

As for the level of accessibility to post a review, we conducted an independent sample t-test to examine the manipulation checks. The result of Levene's test shows the null hypothesis that the error variance of the dependent variable is equal across groups is rejected ($p = 0.004$). The means of two groups are significantly different ($M_{high} = 6.10$, SD $= 0.95$ vs. $M_{low} = 2.34$, SD $= 1.67$; $t = 13.62$, $p < 0.00$), indicating that participants also perceived the different level of accessibility from the scenarios as intended.

3.2 Main test

For the main test, we recruited 378 respondents using a small monetary incentive on Amazon Mturk (male: 54.8%, female: 45.2%, average age = 36.7). Participants were asked to read one of six conditions (three levels of hotel experience scenarios with high or low accessibility conditions). After reading the assigned scenarios, participants were asked to answer the dependent variable which is the degree of their intention to post a review of the hotel experience using a seven-point Likert scale (ranging from extremely unlikely = 1 to extremely likely = 7). We adapted the measurement items from a previous study (Arpaci et al., 2018) and modified them for the purpose of our study. The measure includes two items: "How likely is it that you would post a review for this hotel experience?" and "How likely is it that you would let other people know about this hotel experience by posting a review?" The correlation between the two items was 0.91 ($p < 0.01$). We used the average score of the items for the main analysis.

3.3 Results

The assumption of homogeneity of variance was first tested before conducting the ANOVA to confirm the proposed hypotheses. The Levene's F test, $F(5, 372) = 2.177$, $p = 0.056$ showed

			N	1	Subset 2	3
Dimension		Negative	49	1.523		
		Neutral	49		4.578	
		Positive	49			6.653

Table 2.
Pretest: The result of *t*-test for valence of experience

	T	df	Sig. (2-tailed)	Mean difference	95% confidence interval of the difference Lower	Upper
Accessibility*	13.627	76.347	0.000	3.75510	3.20632	4.30388
Note(s): *Equal variances not assumed						

Table 3.
Pretest: The result of *t*-test for level of accessibility

that our data met the assumption of homogeneity of variance. Then, we proceeded to conduct the two-way ANOVA. The results showed the main effect for the valence of experience, $F(2, 372) = 47.696$, $p < 0.00$, indicating a significant difference between positive experiences ($M = 5.64$, SD $= 1.56$), negative experiences ($M = 5.35$, SD $= 1.77$), and neutral experiences ($M = 3.79$, SD $= 1.65$). The main effect of accessibility was also significant $F(1, 372) = 12.66$, $p < 0.00$, indicating a significant difference between high accessibility ($M = 5.17$, SD $= 1.74$) and low accessibility ($M = 4.61$, SD $= 1.91$) conditions (see Figure 2). However, the interaction effect was non-significant, $F(2, 372) = 0.290$, $p = 0.748$.

Since we did not have a statistically significant interaction, we interpreted the post hoc test results for the different levels of valence, which can be found in the multiple comparisons.

Post-hoc analyses using the Tukey post-hoc criterion for significance indicated that the intention to post was significantly different between the two extreme conditions (positive and negative) and the neutral condition ($p < 0.000$). As shown in Tables 4 and 5, means for positive and negative conditions are displayed in homogeneous subsets and means for neutral condition is displayed in a different subset. Intentions to post reviews was higher in both
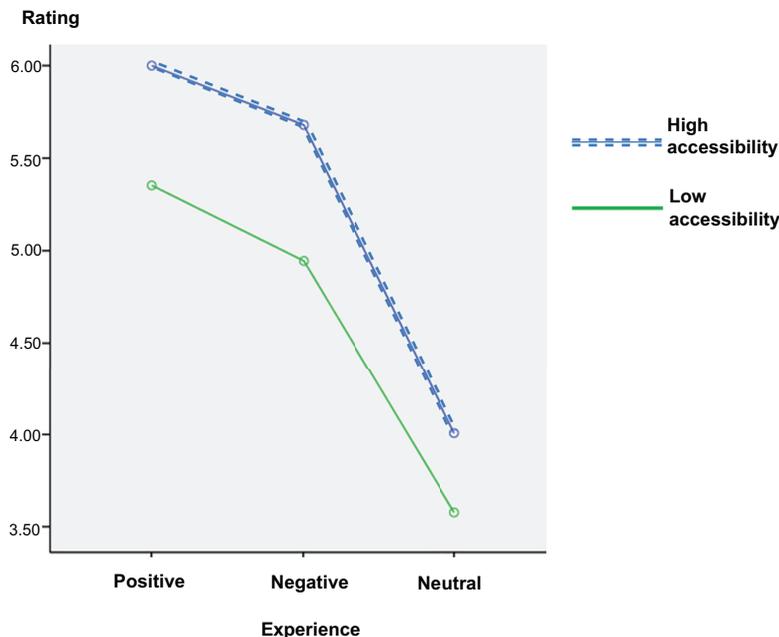

Figure 2.
The result of ANOVA test

		Mean difference	Std. Error	Sig	95% confidence interval	
					Lower bound	Upper bound
Positive	Negative	0.2939	0.20994	0.342	−0.2001	0.7879
	Neutral	1.8482*	0.20509	0.000	1.3656	2.3308
Negative	Positive	−0.2939	0.20994	0.342	−0.7879	0.2001
	Neutral	1.5542*	0.20640	0.000	1.0686	2.0399
Neutral	Positive	−1.8482*	0.20509	0.000	−2.3308	−1.3656
	Negative	−1.5542*	0.20640	0.000	−2.0399	−1.0686

Table 4.
The result of multiple comparisons

extremely positive ($M = 5.64$, SD $= 1.46$) and negative ($M = 5.35$, SD $= 1.72$) conditions than in the neutral condition ($M = 3.79$, SD $= 1.65$).

To more specifically we examine the mean difference between hotel experience conditions depending on the level of accessibility, we conducted a *t-test* between groups in which we were interested. Participants in the case of positive and negative experience scenarios indicated significantly varied intention to post, depending on the level of accessibility (Positive: $M_{high} = 6.00$, $M_{low} = 5.35$, $t = 2.338$ and negative: $M_{high} = 5.67$, $M_{low} = 4.94$, $t = 2.247$). However, those in the neutral experience scenario indicate a similar degree of intention to post regardless of the accessibility level (neutral: $M_{high} = 4.00$, $M_{low} = 3.57$, $t = 1.510$).

The results suggest that when consumers are extremely satisfied or dissatisfied, the level of accessibility positively affects their intention to post a review in supporting H1. On the contrary, when consumers are neither satisfied nor dissatisfied, the level of accessibility does not affect their intention to post a review in supporting H2.

4. General discussion

4.1 Theoretical contributions

As previous studies argue, online reviews are one of the most easily accessible information sources (Agnihotri and Bhattacharya, 2016), and they have a significant impact on other consumers' purchase decisions (Kostyra *et al.*, 2016; Burch *et al.*, 2018; Kim *et al.*, 2020). With the advancement of mobile technology, online reviews posted via mobile devices are on the rise and mobile reviews are fundamentally different from non-mobile reviews (Lurie *et al.*, 2014; März *et al.*, 2017; Mariani *et al.*, 2019; Ransbotham *et al.*, 2019; Kim *et al.*, 2020). That is, it is important to delve into examining the influences of different characteristics of mobile devices in order to provide a better understanding. Additionally, a prior study also emphasizes the significance of investigating the effects of situational heterogeneity on review-posting behavior (Winer and Fader, 2016).

Thus, we aim at examining how one of the distinguished characteristics of mobile devices, high accessibility for review-posting, influence a consumer's intention to post an online review depending on the valence of consumption experiences. Since high accessibility of mobile devices reduces time cost for review posting (Kim *et al.*, 2020), it can influence the cost-benefit analysis for review-posting. It is expected to result in different levels of intentions to post a review depending on valences of experiences as the benefits of posting reviews are different depending on the valence of the consumption experiences (Constant *et al.*, 1996; Yoo and Gretzel, 2008; Hennig-Tuarau *et al.*, 2004). We develop two hypotheses based on the arguments. First, consumers with extreme experiences will show higher intentions to post reviews due to the high accessibility for review-posting. Second, consumers with moderate consumption experiences will not show different levels of intentions to post reviews regardless of the level of accessibility for review-posting.

We employ a scenario method for our experimental study to manipulate only the level of accessibility for review-posting and the valence of experiences, which allows us to isolate the effects of different levels of accessibility for review-posting. As a result, we find that the intention to post a review of extreme positive and negative consumption experiences is

				Subset	
			N	1	2
Dimension	Neutral		133	3.7970	
	Negative		121		5.3512
	Positive		124		5.6452

significantly higher when consumers have high accessibility for review-posting. On the contrary, the intention to post a review of moderate consumption experiences is neither higher nor lower regardless of the level of accessibility. We believe that the findings contribute the literature in that, to the best of our knowledge, there is no extant literature showing the relationship between the level of accessibility for review-posting and intentions to post reviews.

In addition, our findings confirm the importance of perceived costs in cost-benefit analysis of the social exchange theory for review-posting behaviors. Kim *et al.* (2020) suggest that the high accessibility for review-posting reduces the perceived costs in terms of time spent to post reviews. We develop our hypotheses based on the logic that how the reduced costs can have differential impacts on intentions to post depending on the valence of consumer experiences.

By drawing on the social exchange theory, both perceived benefits and costs for review-posting behaviors are expected to be important determinants for building intentions to post online reviews, as the decision to share information is based on a self-interest analysis of costs and benefits (Blau, 1964; Emerson, 1962; Homans, 1958; Molm, 2001). However, most existing literature focuses on the effects of providing external benefits, such as financial incentives, on review-posting behaviors (e.g. Chen *et al.*, 2010; Fradkin *et al.*, 2015; Cabral and Li, 2015; Burtch *et al.*, 2018). As only limited literature pays attention to cost aspects in cost-benefit analysis for review-posting considering the importance of understanding consumers' review-posting behaviors, we believe our findings contribute to existing knowledge.

4.2 Managerial contributions
Providing helpful online reviews is elementary for e-commerce companies (März *et al.*, 2017). As certain online reviews are perceived more helpful than other online reviews, simply providing online reviews is no longer adequate (Schlosser, 2011). The perceived value of customer reviews is measured through "helpfulness votes". Providing helpful reviews is important because the overload of online customer reviews and conflicting information can negatively influence the efficiency of other consumers' decision-making processes (Chen and Tseng, 2011; Hong *et al.*, 2017). In addition, providing helpful reviews can improve the value of companies (Lee *et al.*, 2018). In this regard, our research findings provide useful managerial implications.

Prior literature finds that the valence of review ratings is an important determinant for the perception of review helpfulness. More particularly, consumers find the online reviews with extreme positive or negative ratings more helpful than online reviews with moderating ratings (Pavlou and Dimoka, 2006; Forman *et al.*, 2008; Mudambi and Schuff, 2010). Our findings show that consumers with extreme consumption experiences have higher intentions to post reviews when they use mobile devices compared to non-mobile devices. This means that e-commerce companies can increase the volume of the more helpful reviews by directing consumers to mobile device for review-posting, which results in enabling them to attract and retain more consumers.

4.3 Limitations and future research
Although we believe that this study makes contributions, our findings are subject to some limitations. First, our study examines only the effects of high accessibility as the characteristics of mobile devices on review-posting intentions. However, previous studies suggest that there are other distinguished characteristics of mobile devices such as smaller device size, less visible screens, and smaller keyboards. They argued that these characteristics are likely to increase the perceived costs for review-posting (Chae and Kim, 2004; Raptis *et al.*, 2014; Sweeney and Crestani, 2006). Further studies might want to incorporate these into research design to provide a more comprehensive understanding of how the characteristics of mobile devices influence review-posting behaviors.

Second, we employ a scenario method to manipulate the different level of accessibility to avoid any possible compounding effects from having participants use actual mobile devices for our experiment. Further studies will need to confirm this by different research designs that involve actual mobile devices. Third, we collect our data for the experiment from registered panels of Mturk in exchange of small monetary incentives. Although previous studies confirm the reliability of the data source (Holden *et al.*, 2013; Buhrmester *et al.*, 2016), it can still be considered convenience samples. As it can rise the generalizability issue of the findings, further study might want to employ different sampling methods to address the issue. Finally, as the scenarios of online reviews on only hotel services were used as stimuli for our experiment, future studies may explore other types of product to more deeply and comprehensively understand review-posting behaviors of consumers.

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