

# Understanding Local Consumers' Reaction to Perceived Unfair Product Recalls of Foreign Brands: A Relative Deprivation Perspective

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# **Understanding Local Consumers' Reactions to Perceived Unfair Product Recalls of Foreign Brands: A Relative Deprivation Perspective**

#### Abstract

**Purpose** - Global product-harm crises increased in recent years. After such crises, firms' product-recall policies varied across countries, which might cause consumers in some countries to feel unfairly treated. Drawing on the relative deprivation theory, this study aims to examine how perceived unfairness of local consumers alters their attitudes toward unfairness-enacting foreign brands and competing domestic brands.

**Design/methodology/approach** - Our framework was tested by a netnography study on two product recalls from Samsung along with a consumer survey. While this netnography study provided preliminary support to the framework, survey data collected from 501 Samsung consumers after the Galaxy Note 7 crisis validated the theoretical model again.

**Findings** - Perceived unfairness increases local consumers' avoidance of involved foreign brands and their intention to purchase domestic brands through evoking anger toward the foreign brands. Moreover, the detrimental impact of perceived unfairness is found to be stronger when consumers' prior relationship quality is high.

Originality/value - To the best of our knowledge, this is the first paper that investigates unfair product recalls across countries and aims to provide important insights into how consumers react to the unfair treatment of foreign brands in a global product-harm context. This study contributes to the product-harm crisis literature and provides important implications for global product-harm crisis management strategies.

**Keywords:** Product-harm crisis, Product recalls, Unfairness, Anger, Relationship quality, Netnography, Foreign brands

### 1. Introduction

Product-harm crises refer to "discrete, well-publicized occurrences wherein products are found to be defective or dangerous" (Dawar and Pillutla 2000, p215). These crises experienced a significant boom in the last two decades (Borah and Tellis, 2016; Cleeren et al., 2008). This boom has been credited to the growing complexity of products, the enhanced close inspection by producers and policymakers, global production, increasing outsourcing, and high consumer demands (Cleeren et al. 2013; Liu and Shankar 2015). Meanwhile, with the development of economic and trade internationalization, numerous firms are marketing products in many countries. As such, when a product is demonstrated to be defective and threatens the health and safety of consumers across countries, its manufacturer usually has to issue a global product recall. Indeed, recent decades have witnessed the growth of worldwide product-harm crises (Carvalho et al., 2015; Coombs and Laufer, 2018). Consequently, international brands have to manage a product-harm crisis globally when the crisis occurs in many countries concurrently (e.g., the recall of Galaxy Note 7).

In terms of dealing with a global product-harm crisis, prior research tends to assume that firms take the same standards and actions across all countries (e.g., Gao *et al.*, 2015; Van Heerde *et al.*, 2007). However, such a protocol is not always the case. By contrast, many firms may take unequal product-recall strategies when faced with a global product-harm crisis. For example, in IKEA's first statement about the defective product, IKEA recalled its defective drawers only in North America, despite that the furniture was sold in Asia as well (China Daily, 2017). Volkswagen's recall policy for defective cars in China was later than in North America (Du, 2015). In addition, Samsung used a proactive recall strategy in developed countries (e.g., USA & Korea), but applied a passive recall strategy in emerging countries (e.g., China) stating that it would not recall products in these regions, despite the fact that these products all had the same defects (Wee, 2016). With the development of social media, many corporate actions have come under public scrutiny and these unfair incidents are widely reported by public media, thus triggering negative consumer sentiment. Normally, in the marketplace, fairness means that companies provide customers with a basic and consistent guarantee of product quality in a way that is right or

reasonable. However, inferior recall policies will undermine legitimate rights of some consumers (e.g., consumers in some countries receive less compensation, a more passive recall policy or poorer service than consumers in other countries), which may affect customers' perceived fairness. In this study, we aim to examine how unfair product recalls of firms across different countries influence reactions of consumers who feel inferiorly treated. Specifically, we aim to examine how perceived unfairness alters local consumers' attitudes toward the involved foreign brands and competing domestic brands. Besides, prior relationship quality is examined as a moderator to reflect how the impact of perceived unfairness varies across consumers. We utilize the relative deprivation theory to develop the theoretical framework, which explains the subjective evaluation of people that they do not have what they deserve compared with other people and groups (Walker and Pettigrew, 1984). Because unfair product recalls often leave consumers feeling disadvantaged in the global marketplace, our research fits the profile of the relative deprivation theory.

To test our theoretical framework, one netnography study on two product recalls from Samsung along with a survey was conducted. This study yields some important theoretical contributions to the product-harm crisis literature. First, previous research on global product-harm crises often assumes consistent product recall policies (Barbarossa et al., 2018). Departing from previous literature, this study is the first to investigate how perceived unfair product recalls that foreign brands conducted across countries influence local customers. Specifically, this study contributes to the literature by uncovering how perceived unfair product recalls influence local consumers' reactions to the involved foreign brands and competing domestic brands and revealing anger as the mechanism for the above effects. Second, this article demonstrates that unfair recall strategies by foreign brands can enhance consumers' willingness to purchase domestic products, in addition to directly affecting consumers' attitudes towards the foreign brands involved. This article extends findings of the impact of product harm crises. Third, while prior research shows negative findings on the role of relationship quality after different kinds of brand transgression (Khamitov et al., 2019), the role of relationship quality is unclear in the context of global product crises. We address this gap by investigating the moderating role of relationship quality when local consumers perceive unfair product recalls of foreign

brands compared with consumers in other countries. This study also has provided practical suggestions for managing product-harm crises in the age of globalization and nationalism. More broadly, this article has implications for understanding the inferior or even unfair marketing practices of international firms across countries.

-----Insert Figure 1 about here-----

# 2. Literature review

#### 2.1 Product harm crisis

As product-harm crises have become global, firms have to issue product recalls in many countries (Steven et al., 2014). Previous research examining the impact of productharm crises has often been based on the assumption that companies adopt a universal product recall policy around the world (Gao et al., 2015; Van Heerde et al., 2007). However, this practice may not always be the case. Some firms will adopt inconsistent product recall strategies when faced with a product-harm crisis (e.g., the IKEA dresser case and the Samsung mobile phone explosion case), and the impact of these inconsistent or even unfair product recall strategies has rarely been given enough attention to. Evidence shows that firms are adopting differential marketing policies around the world (Sisto et al., 2019). When companies encounter product harm crises, they may also adopt different recall strategies. According to press reports, firms may compensate consumers in some specific countries more than those in other countries or proactively recall the product more quickly in some countries but passively recall the product in other countries (see Kharpal 2016). The inferior and unequal product recalls across countries may cause consumers in some countries to feel unfairly treated. According to the justice framework, fairness is assessed by how firms deal with customers in terms of distributive, procedural, and interactional dimensions (Blodgett et al., 1997). Violating any of the dimensions can produce a perception of unfairness. The impact of unfairness has been well examined in the service recovery context (Goodwin and Ross, 1992; Mattila and Patterson, 2004; Mccoll-Kennedy and Sparks, 2003).

However, how the perceived unfairness of local consumers influences their attitudes

and behaviors toward foreign brands and local brands in the context of global product-harm crises has never been examined. Close to this study, Gao et al. (2013) found that foreign brands can be negatively impacted because of their association with a local brand that undergoes a product-harm crisis. Maher and Singhapakdi (2017) revealed that the moral failure of a scandalized foreign brand decreases the intention of consumers to purchase other foreign brands from the same country but increases their intention to purchase domestic brands. More closely to our research, in two quasi-experimental studies, Barbarossa et al. (2018) demonstrated that the country-of-origin of a foreign company (including warmth and competence) alleviates the blame attribution of local consumers to a product-harm crisis. In addition, consumers' relationships with brands can influence the way they process negative information about a brand. Some scholars argue that close relationships lead consumers to defend brands (Ahluwalia et al., 2000), while others argue that higher relationship quality can turn brand attachment into brand hatred (Grégoire *et al.*, 2009).

# 2.2 Relative deprivation theory

Relative deprivation theory is a classic theory in the social psychology area. Relative deprivation describes the subjective evaluation of people that they do not have what they deserve compared with other people and groups (Walker and Pettigrew, 1984). Feelings of deprivation are characterized by the joint occurrence of frustrated wants and violated entitlements (Crosby, 1984). Relative deprivation may manifest at the individual level and group level (Guimond and Dube-Simard, 1983; Runciman, 1966). Individual relative deprivation results from an interpersonal comparison, while group relative deprivation results from intergroup comparison (Grant and Brown, 1995). Smith et al. (2012) maintained that relative deprivation arises from three necessary appraisals and perceptions: (1) Comparisons must be made by an individual; (2) The individual perceives that he/she or his/her in-group is at a disadvantage; (3) The perceived disadvantage is considered unfair. Feelings of relative deprivation are usually accompanied by negative emotions and reactions, such as anger, grievance, moral outrage, and resentment (Mummendey *et al.*, 1999). To cope with relative deprivation, individuals are likely to engage in social protests (Grant and Brown, 1995; Grant, 2008) and show hostility toward the out-group (Koomen

and Fränkel, 1992). Prior research has demonstrated that experienced discrimination relates to feelings of deprivation (Corning, 2002; Koomen and Fränkel, 1992).

# 3. Hypothesis development

# 3.1 Research framework

In this study, we focus on the impact of a company's unfair recall strategies on consumers' emotional and behavioral reactions. Based on previous literature on productharm crisis and the relative deprivation theory (Mccoll-Kennedy and Sparks, 2003; Smith et al., 2012), we argue that perceived unfairness stimulates consumers' desire for avoiding unfairness-enacting foreign brands and increases their intention to purchase domestic products, and this process is mediated by anger. Drawing on research on consumer-brand relationships (Heidenreich et al., 2015; Wan et al., 2011), we propose that relationship quality moderates the effect of perceived unfairness on anger. Specifically, the positive effect of perceived unfairness on anger is more salient for consumers with high relationship quality than for those with low relationship quality. This study proposes a conceptual model as shown in Figure 1.

-----Insert Figure 1 about here-----

# 3.2 Perceived unfairness and its impact

Consumers always expect a fair deal in a consumer-firm exchange (Alexander, 2002). Differential treatment of consumers by a foreign brand leads to consumers' negative attitudes toward the brand, such as customer demotion (Wagner et al., 2009) and price discrimination (Fernandes and Calamote, 2016; Lii and Sy, 2009). Previous research in service encounters demonstrates that perceived injustice has a negative impact on consumers' repurchase intention toward the involved brand (Schoefer and Diamantopoulos, 2008; Balajı *et al.*, 2017). —

price discrimination, they are more likely to resist the involved company

fairness (Homburg *et al.*, 2005; Wang and Krishna, 2012; Fernandes and Calamote, 2016).

\*\*Company lead consumers to avoid the source of injustice. 2008; Balaji et al., 2017). In addition, research indicates that when consumers perceive

Moreover, an unfair product recall policy across countries after a product harm crisis suggests that consumers in particular countries are valued less than others, which may lead local consumers to perceive threat of their self-identity concerning their nation, view the involved foreign brand as an outgroup member, especially for ethnocentric consumers (Verlegh, 2007; Zeugner-Roth *et al.*, 2015), as well as promote greater national identity (Carvalho *et al.*, 2019). In order to reduce the threat and protect their feelings of national self-worth, local consumers tend to abandon the original brand and alter their product choices (White and Argo, 2009). Thus, we propose the following hypothesis:

H1: Perceived unfairness of the product recall of a foreign brand positively influences local consumers' desire for avoidance of the foreign brand.

In addition to affecting consumers' attitude toward the unfairness-enacting foreign company, the recall policy may influence consumers' attitudes to domestic brands as well. Existing research has shown that perceived unfairness facilitate consumers to examine possible alternative brands and switch to other brands (Appiah *et al.*, 2019). Similarly, perceptual disparity caused by price discrimination leads to a shift in consumers' store choices (Wu *et al.*, 2012). Furthermore, as being disadvantaged, local consumers who view the foreign brand as outgroup are likely to develop a bad perception of the foreign brand's original country image (Han, 1989), consider domestic brands as ingroups members and actively seek alternatives in domestic brands (Maher, 2017). Based on the above literature, it is reasonable to expect that when foreign brands adopt unfair product recall strategies for consumers in different regions, consumers are likely to turn to domestic brands instead and have a higher purchase intention for domestic brands. Building on these arguments, we predict that:

H2: Perceived unfairness of the product recall of a foreign brand positively influences local consumers' intention to buy domestic brands.

### 3.3 The mediating role of anger

Anger is characterized by consumers' appraisals on high other-responsibility for negative events and high other-control over these negative events (Lerner and Tiedens,

2006). When foreign brands conduct an unfair product recall after a product crisis, they escape the responsibility they should have taken, which can lead local consumers to feel angry. On the other side, inconsistent recall strategies among countries threaten local consumers' national identity, then consumer anger emerges (Grant and Brown, 1995). Evidence shows a positive link between perceived unfairness caused by price discrimination and the anger of consumers (Wu *et al.*, 2012). Besides, research on relative deprivation suggests that relative deprivation of a group is always accompanied by feelings of anger (e.g., Smith et al. 2012). Based on these findings, we argue that perceived unfairness caused by foreign brands' product recall strategies can provoke anger among local consumers.

Anger is a highly outward-focused emotion that motivates consumers to blame wrongdoers who cause negative events (Zourrig *et al.*, 2009). Previous research demonstrates that angry consumers suffering from the unfair treatment of firms tend to blame the firms involved severely (Kalamas *et al.*, 2008), terminate their relationships with the firms (Porath *et al.*, 2011). When consumers' anger emerges, they have negative repurchase intentions toward the wrongdoers (Kalamas *et al.*, 2008) and their purchase intentions decrease (Vassilikopoulou *et al.*, 2011). Research on intergroup relationships also indicates that anger toward the out-group (e.g., a foreign brand) motivates individuals to take action against it (Mackie *et al.*, 2000). Thus we propose that anger stimulates consumers' desire for avoidance.

Moreover, the anger caused by perceived unfairness changes consumers' attitudes toward other brands (Mackalski and Belisle, 2015; Maher and Singhapakdi, 2017). Previous research indicates that consumers will find alternatives (Appiah *et al.*, 2019) and switch to competing brands (Kapoor and Banerjee, 2021) when they hold a negative attitude toward a brand's scandals. And (Maher, 2017) confirmed that domestic consumers may feel bad about the country of origin of the brand and show preference for domestic brands products. Drawing from the extant research, we argue that the anger felt by local consumers will lead them to support domestic brands. The discussion above leads to the following hypotheses:

H3: The impact of perceived unfairness on local consumers' desire for avoidance of

the foreign brand is mediated by local consumers' anger.

H4: The impact of perceived unfairness on local consumers' intention to buy domestic brands is mediated by local consumers' anger.

# 3.4 The moderating role of relationship quality

Early research on negative publicity and service recovery suggests that prior relationship quality before a brand crisis or failure serves as a buffering factor that mitigates the negative impact of a brand's wrong-doing (e.g., Ahluwalia et al., 2000; Cheng et al., 2012; Dawar & Pillutla, 2000). However, recent studies have demonstrated that the buffering effect can be reversed in some situations. For instance, high relationship quality customers decrease brand evaluation when the firm violates relation norms (Aggarwal, 2004), and when the product failure is severe (Einwiller et al., 2006). In a failure case, consumers with higher relationship quality will react more negatively to the brand than those with lower relationship quality (Heidenreich et al., 2015; Wan et al., 2011). Trump (2014) indicates that consumers who are closely associated with a brand do not condone corporate violations if the brand's negative behavior is unethical. They even develop more lasting brand hatred when they feel being betrayed by the firm compared with low relationship quality customers (Grégoire et al., 2009). In addition, consumers attach importance not only to their personal identity, but also to their national identity as citizens (Zeugner-Roth et al., 2015). Perceived unfair product recall policies issued by foreign companies will not only make consumers feel disrespected, but also make them feel offended about their national identity. Because foreign brands' unfair treatment poses a threat to local consumers' national identity, high relationship-quality customers are more likely to deem such violation as severe and take it as a betrayal, which leads to stronger anger. Thus, the following hypothesis is proposed:

H5: The mediation effect of anger in the relationship between perceived unfairness and desire for avoidance of the foreign brand (H5a) and the relationship between perceived unfairness and intention to buy domestic brands (H5b) is positively moderated by relationship quality.

# 4. Study 1

To gain real-life insights into how local consumers reacted to unfair product recalls enacted by foreign brands, we conducted Study 1 by using the netnography approach, an online marketing research method applied to gain insights into social media consumers (Kozinets, 2002). Netnography improves ethnographic research techniques to investigate cultures and communities on online platforms. Therefore, netnography retains advantages of ethnography, while this method is also less time-consuming and simpler (Kozinets, 2002). In addition, as a qualitative research method under the developing branch of traditional ethnography, netnography places more emphasis on the 'immersive' rather than 'invasive' nature of research (Kozinets, 2015; Reid and Duffy, 2018). Netnography has been applied in many contexts, such as wine tourism experience (Kozinets, 2002; Vo Thanh and Kirova, 2018), brand communities (Weijo et al., 2014), and branding (Loureiro et al., 2019). This method matches well with our research purpose of understanding consumers' reactions to unfair product recalls of foreign brands because product-harm crises are usually widely discussed on online news sites or forums, which enables us to analyze sentiments, thoughts, and opinions of consumers on unfair product recalls (Heinonen and Medberg, 2018).

#### 4.1. Research setting and data collection

We decided to select the product recall of Samsung Galaxy Note 7 smartphone in 2016 because it received wide publicity. After its launch in 2016, Samsung Galaxy Note 7 smartphone was reported to have multiple incidents of explosions around the world. The firm finally decided to issue a global product recall. However, product recall policies conducted by the firm were unfair across countries. Specifically, the firm proactively recalled this product in America, Korea, and European countries after explosion accidents on September 2, 2016. Normally, a company's product recall strategy should be voluntary and proactive (Chen *et al.*, 2009), and Samsung did so in these regions. However, the company still launched this product on September 2, 2016 in China and insisted that this phone used a different battery from phones sold in other markets. With news reports about similar fire-catching accidents in China, Samsung admitted its quality issue, and the

company was forced to recall their phones in China as required by the Consumer Protection Agency of China on October 11, 2016 (Fan, 2016). We can see that Samsung adopted a passive and delayed recall strategy in China that differed from other countries. The uneven action of the brand was widely criticized for its "arrogance", "double standards", and "discrimination" by Chinese media (see Kharpal 2016). This issue was a typical global product-harm crisis and provided a good context to examine consumers' reactions when they felt unfairly treated by foreign brands. The way Samsung dealt with the crisis was also discussed widely online, which allowed us to examine consumers' reactions to the unfair treatment of foreign brands.

Following previous guidelines provided by Kozinets (2002), the authors first identified an independent online brand community as the research context. This brand community is built on Baidu Tieba, which is one of the largest online networking sites in China and allows users to discuss any topics about Samsung in the form of posting threads and leaving comments. Not surprisingly, the Samsung Galaxy Note 7 crisis was discussed extensively in this brand community, which provided the authors with rich opportunities to understand how Samsung users reacted to this event. In addition, because of its independence on Samsung, it is not a concern that Samsung would suppress users' discussion about the crisis. The authors designed a web crawler to retrieve relevant threads using the following set of keywords "Samsung Galaxy Note 7 + Product recall". This process yielded 457 relevant threads and 16449 comments.

# 4.2. Analyzing the comments

After data collection, to gain a comprehensive understanding of consumers' views of the event, we conducted text analysis through manual coding following established procedures (Wu and Pearce, 2014), with three researchers coding the data for the process. At the start of text analysis, researchers classified and coded the collected data. The text analysis followed an open coding approach to qualitative analysis, generating categories from the data (Strauss and Corbin, 1998). Three authors read all comments and coded them. Note that online comments are usually very short on online forums. This is also true for our case. 64% comments consist of less than 20 words. This situation makes our reading

and coding process much easier. First, after carefully interpreting 2000 random comments, we found that comments could be classified into five major categories according to stakeholders involved in the comments: 1. comments that were related to reactions (e.g., attitudes and sentiments) to the foreign brand involved (Samsung), 2. opinions related to other foreign brands, 3. opinions related to competing domestic brands (e.g., Huawei), 4. opinions related to the role of the government in dealing with the crisis, and 5, others. Note that these categories are not mutually exclusive. In other words, a comment can fall into two or more categories. Then, two authors independently coded comments according to the five categories. The consistency ratio was high (86.3%), and any inconsistencies were resolved through discussion between the two coding authors and a third author. Given the purpose of this study, we focused on comments that fell into the first and third categories. Two significant findings emerged from the examination of these comments, which are discussed in greater detail below.

# 4.3. Findings

Finding one: A unfair product recall triggers negative emotional reactions.

Many users in the community seemed to be angry with the unfair product recall of the company Samsung. About 35% of comments involved consumers' anger through coding the comments by two authors in the case of Samsung. A comment on the product recall of Samsung Galaxy Note 7 stated that "The point is that the company knows that it can and dares to fool the Chinese and that it can't fool the Americans." The user felt unfairness and was angry because he/she did not think that Chinese consumers received the same treatment after the crisis from the company compared with American consumers. Other consumers called for boycotting Samsung, such as "Boycott Korean goods, boycott Samsung!" and "From now on, Chinese people who buy Samsung phones are really xxx (vulgarity)." In other words, consumers wanted to avoid Samsung. Notably, this emotion and intention to avoid the brand seemed to be stronger among users who had purchased many items from Samsung before. For instance, a user posted a video displaying his four Samsung phones and threw them into a river, suggesting he said "Bye-bye" to Samsung. Another user also said that she/he replaced Samsung with Huawei already after the unfair

event and swore that "I swear I will never buy Samsung products in my life." Taken together, those comments provided preliminary support to our hypotheses about the role of anger and demonstrated that perceived unfairness increased local consumers' desire for avoidance of the involved foreign brand.

Finding two: The preference for domestic products increased.

After encountering the unfair treatment of the firm, consumers increased their preference for domestic products which consisted of about 21% of comments in the case of Samsung. Typical comments said "Still insist on domestic products, I replaced Apple, Samsung with OPPO and Huawei. I think it's quite good. Why should I use Apple and Samsung?", "If you have any ambition, buy a China-made phone but don't buy a foreign phone.", "Chinese phones are on the march, and Samsung phones are becoming junk.". A considerable number of users believed that the quality of Chinese products was good and continually improved. They also took pride in buying Chinese products. These findings suggested that perceived unfairness increased local consumers' preference for domestic products, which initially lent support to H2.

# 5. Study 2

To complement the findings of Study 1 using the qualitative data available online and open to the general public, we conducted Study 2 utilizing the survey data concerning the Samsung Galaxy Note 7 battery crisis to test our hypotheses and verify our research framework.

### 5.1 Subject and procedures

This study used a self-completion survey to determine perceptions and intentions of consumers after the exposure to the crisis. We administrated the survey after the product recall in China in partnership with a professional market survey company using their paid service. The survey was conducted from October 13, 2016 to October 31, 2016. The qualified respondents were compensated with approximately \$3 for their participation in the survey. Offering \$3 was expected to alleviate the self-selection issue. 900 users were contacted and 506 responded, with a 56.2% response rate. As we aimed to examine how Samsung consumers reacted to the crisis, only those who used a Samsung phone at the time

of the survey and were aware of the Galaxy Note 7 explosion events were qualified to participate. We used two questions concerning the above two requirements to screen out unqualified participants. As Galaxy Note 7 was recalled in a short time after it was launched in China, our sample only included five consumers who purchased Galaxy Note 7. Given the limited size and potential differences between those who purchased Galaxy Note 7 and those who did not, these respondents were removed from our analysis. Finally, the survey yielded 501 usable questionnaires. The demographic characteristics of our respondents were reported in Table 1.

# -----Insert Table 1 about here-----

#### 5.2 Measures

The measurement items of perceived unfairness, anger, desire for avoidance, and intention to buy domestic brands were adapted from previous literature and were measured using 7-point Likert scales (1 = strongly disagree, 7 = strongly agree). Specifically, perceived unfairness was adapted from Mayser and von Wangenheim (2013) and Samaha et al. (2011) (Cronbach's  $\alpha = 0.92$ ). Items of anger were adapted from Porath et al. (2010) and Fox et al. (2018) (Cronbach's  $\alpha = 0.93$ ). Three measurement items for "desire for avoidance" from Grégoire, Tripp, and Legoux (2009) were adapted into the current study (Cronbach's  $\alpha = 0.93$ ). Two items of "intention to buy domestic brands" were adapted from Assaf et al. (2011) (Cronbach's  $\alpha = 0.91$ ). As purchase volume is an important index of relationship quality (De Cannière et al., 2010), relationship quality was measured by the question, "How many Samsung items have you purchased in the last three years?". As we conducted the survey after the product-harm crisis, the relationship quality of the consumer would have been affected by the event, so we used past purchases to measure the relationship quality beforehand. Given that Samsung marketed a variety of electronic products (e.g., mobile phones, laptops, tablets, smartwatches, TV, and flash disk) in China, it was reasonable to expect that the more items one customer purchased from the firm, the higher the relationship quality was. Several relevant control variables were incorporated into the questionnaire. First, we controlled for age, gender, education, and income. Second, the perceived severity of the crisis was measured (1 = not severe at all, 7 = extremely severe) (Dawar and Pillutla 2000).

# -----Insert Table 2 and 3 about here-----

A two-step approach was used to analyze the data and test all research hypotheses (Anderson and Gerbing, 1988). Specifically, the measurement model was first assessed by using confirmatory factor analysis (CFA) to check the quality of our measures before the second step of evaluating hypotheses using structural equation model (SEM) testing.

### 5.3 Measurement model testing

CFA was first performed on all items corresponding to the five constructs in this study. This process yielded the following results:  $\chi^2_{55} = 158.18$  (p <0.001); NFI = 0.95; CFI = 0.95; GFI = 0.92; SRMR = 0.05; RMSEA = 0.08. The overall goodness-of-fit indices indicated that all fits of the measurement model were acceptable. Specifically, the  $\chi^2$  (degrees of freedom) (2.87) was smaller than the recommended value of 3.0. The normed fit index (NFI), the comparative fit index (CFI), and goodness-of-fit index (GFI) all exceeded 0.90. Moreover, the root means square residual (RMSR) was smaller than 0.05, and the root means square error of approximation (RMSEA) was 0.08 (Bentler and Bonett 1980). These figures suggested that the hypothesized CFA model fitted well with our empirical data.

Convergent validity was confirmed by investigating three conditions (Fornell and Larcker, 1981). First, the values of all standardized factor loadings were more than 0.70. Second, the values of all average variance extracted (AVE) were more than the threshold value (0.50). Finally, Cronbach's alpha for each construct was greater than 0.70, fulfilling the common requirement of data analysis (see Table 2). Taken together, our measures had good convergent validity. Discriminant validity for measures was also satisfactory, suggesting that maximum shared squared variances were smaller than AVEs for each construct (see Table 2). Moreover, the AVE for each construct was greater than the squared correlation coefficients between the construct and other latent constructs, thereby indicating adequate discriminant validity (Hair *et al.*, 2013).

# 5.4 Hypothesis testing

Structural equation modeling (SEM) was used to test the theoretical model depicted in Figure 1 other than the moderating effect of relationship quality. Results showed that the model fitted the data well, as evidenced by the goodness-of-fit measures ( $\chi^2_{66} = 132.31$ , p = 0.000; NFI = 0.94; CFI = 0.94; SRMR = 0.05; RMSEA = 0.05). The results revealed that perceived unfairness positively influenced anger desire for avoidance (b = 0.67\*\*\*) in support of H1, the intention to buy domestic brands (b = 0.58\*\*) in support of H2, and anger ((b = 0.49\*\*)). Meanwhile, the parameter estimates revealed that anger had a positive and significant effect on desire for avoidance (b = 0.12\*\*\*), and intention to buy domestic brands (b = 0.08\*\*). To test the mediation effect regarding H3, we employed Bootstrapping method with Model 4 (Hayes, 2015) with desire for avoidance as the dependent variable, perceived unfairness as the independent variable, and anger as the mediator variable while controlling for perceived severity and demographic variables. The results indicated that the indirect effect was positive and significant (b = 0.16\*\*\*; 95% bias-corrected CI: [0.041, 0.332]), supporting H3. Likewise, we conducted the mediation test for H4 using Bootstrapping method with intention to buy domestic brands as the dependent variable, perceived unfairness as the independent variable, and anger as the mediator variable while controlling for perceived severity and demographic variables. The results indicated that the indirect effect was positive and significant (b = 0.11\*\*; 95% bias-corrected CI: [0.026, 0.240]), supporting H4.

Furthermore, the Bootstrapping method was employed to test the moderating effect of relationship quality regarding the H5 (Hayes, 2015). As Table 4 indicated that when the dependent variable is desire for avoidance, the moderated mediation effect was positive and the Boot confidence interval (CI) of the index of the moderated mediation did not contain zero (b = 0.096; 95% bias-corrected CI: [0.044, 0.151]). Thus, H5a was supported. More specifically, Table 5 indicated that when relationship quality was weaker, perceived unfairness had an indirect effect on desire for avoidance via anger (b = 0.083; 95% bias-corrected CI: [0.034, 0.137]). When relationship quality was stronger, perceived unfairness had a stronger indirect effect on desire for avoidance via anger (b = 0.156; 95% bias-corrected CI: [0.073, 0.232]). Taken together, the results indicated that the mediating role

of anger in driving the effect of perceived unfairness on desire for avoidance is moderated by relationship quality (H5a).

# -----Insert Table 4 about here-----

When the dependent variable was intention to buy domestic brands, the moderated mediation effect was positive and the Boot CI of the index of the moderated mediation did not contain zero (Table 4, b = 0.124; 95% bias-corrected CI: [0.082, 0.166]), supporting H5b. More specifically, More specifically, Table 5 indicated that when relationship quality was weaker, perceived unfairness had an indirect effect on intention to buy domestic brands via anger (b = 0.034; 95% bias-corrected CI: [0.011, 0.056]). When relationship quality was stronger, perceived unfairness had a stronger indirect effect on desire for avoidance via anger (b = 0.207; 95% bias-corrected CI: [0.094, 0.324]). Taken together, the results indicated that the mediating role of anger in driving the effect of perceived unfairness on intention to buy domestic brands is moderated by relationship quality (H5b) .

# -----Insert Table 5 about here-----

# 6. Discussion

#### 6.1 Theoretical Contribution

Our research contributes to the literature in several ways. First, we extend the product-harm crisis literature by investigating the impact of perceived unfair product recalls conducted by foreign brands on local consumers, which has received little attention to date. Although some studies examine worldwide product-harm crises, they assume that firms adopt consistent product recalls across countries (Barbarossa *et al.*, 2018). Second, this study extends the spillover effect of product-harm crises by demonstrating a positive spillover effect for local brands when foreign brands treat local consumers unfairly. Although prior research provides a country-of-origin mechanism in which product-harm crises of brands decrease local consumers' trust in brands from the same country of origin,

they focus on the spillover effect within the same country (Gao *et al.*, 2013). However, our findings suggest that the spillover effect of the product-harm crises of foreign brands may not be limited to brands from the same country of origin as suggested by prior research (Maher and Singhapakdi, 2017).

Furthermore, while some studies show that relationship quality buffers the negative effects of negative brand events (Ahluwalia *et al.*, 2000; Cheng *et al.*, 2012), other studies provide evidence about the amplifier effect of relationship quality (Heidenreich *et al.*, 2015; Wan *et al.*, 2011). It is reasonable to expect that the role of relationship quality should be context-sensitive. Previous studies have not yet discussed the role of relationship quality in the context of global product crises, especially unfair product recalls. This study enriches prior studies by demonstrating its amplifier effect. That is, we find that unfair treatment by foreign brands motivates consumers with high (versus low) prior relationship quality to experience stronger anger and avoid the foreign brands even more, which is consistent with Grégoire *et al.* (2009)'s findings of the "love-becomes-hatred" effect. Because unfair product recalls following a product-harm crisis can be seen as double violations, our finding is consistent with prior research that double violations intensify consumers' negative reactions (Joireman *et al.*, 2016).

# 6.2 Managerial Implications

This study offers important managerial implications for managing a global product-harm crisis. Generally, consumers demand equal treatment in managerial practices, and fair recovery is especially important after a firm undergoes a product-harm crisis or service failure (Alexander, 2002). Any discrimination damages the reputation of a firm and costs the firm a considerable amount of money (James and Wooten, 2006). This research demonstrates that unfair product recall strategies implied by foreign brands have a negative impact on the brands involved and uncovers the mediating role of anger, which prompts global firms to ethically and fairly react to global product-harm crises across different countries. Even if companies fail to adopt product recall policy with completely consistent standards and make reasonable adjustments in international marketing where appropriate, it's still necessary to emphasize the need to balance consumers' perceived fairness across countries (Asseraf and Shoham, 2019; Schmid and Kotulla, 2011; Shoham *et al.*, 2008).

On the other side, when companies choose to use unfair product recall strategies for profit, they might employ some ways to attenuate the negative impact of the strategies by mitigating consumer anger, especially for consumers with high brand relationship quality. For example, foreign brands may post explanations on social media or communicate with their fans in brand communities about why they choose to implement the strategies, weakening consumers' desire for avoidance.

Furthermore, the adoption of unfair recall strategies by foreign brands creates opportunities for their domestic competitors. Because an unfair product recall policy following a product crisis causes consumers to feel relatively deprived and angry, they may avoid the involved foreign brand and seek alternatives to compensate (Maher, 2017), such as domestic competing brands. The local market share of the foreign brand's products decreases, and domestic competing brands can use promotional tactics or emphasize fairness to attract customers. That's to say, domestic brands need to pay attention to the fairness of their foreign competitors' product recall strategies in order to better capture opportunities and gain market share.

# 6.3 Limitations and future research

The study has limitations that deserve further research. First, our data focus on product recalls of foreign brands from two countries only and one specific product-harm crisis, which may limit the generalizability of our findings. Despite this limitation, this study provides important insights into how consumers react to perceived unfair product recalls conducted by foreign brands. This limitation can be overcome by investigating consumers from other countries (e.g., developed countries) and using a series of product-harm crises in future research. Second, this paper establishes correlations among the key constructs by analyzing survey data. However, the correlations do not necessarily mean causation and further study is warranted to establish causality. Third, although we tried to control self-selection bias, there was still a self-selection concern about our two studies. This limitation can be addressed by using experimental methods in future research.

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# Appendix

Figure 1: Theoretical Framework

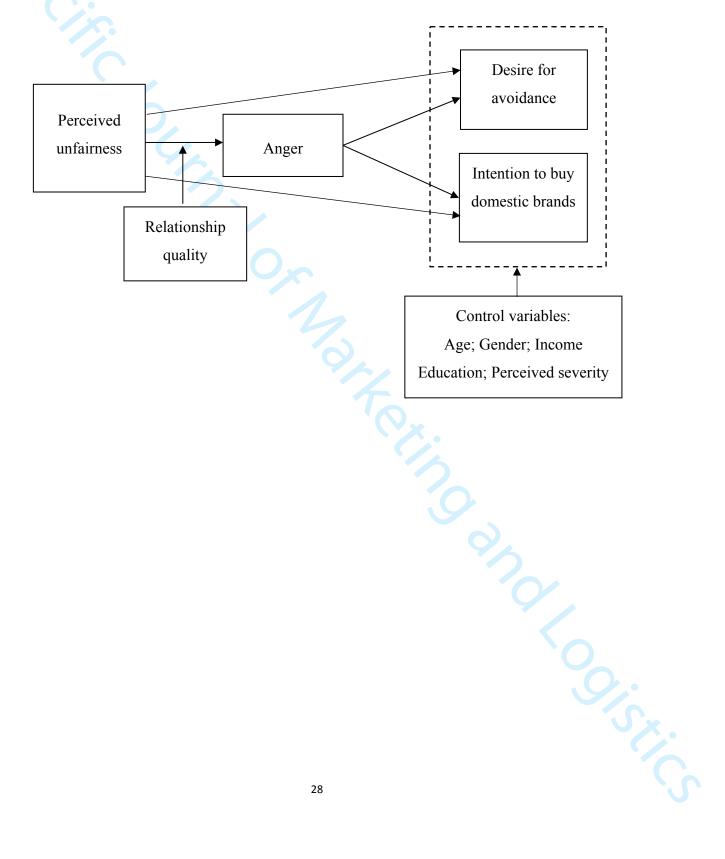


Table 1 Demographic characteristics

Category		Number of	Percentage
		samples	
Gender	Male	298	59.50%
	Female	203	40.50%
Age	Under 20	27	5.40%
	20-29	148	29.50%
	30-39	196	39.10%
	40-49	94	18.80%
	50 and above	36	7.20%
Education	Ph.D. and above	21	4.20%
	Master's degree	95	19.00%
	Undergraduate	188	37.50%
	High school and below	197	39.30%
Monthly income	8,000 RMB and above	103	20.60%
	6,000-7,999 RMB	114	22.80%
	4,000-5,999 RMB	146	29.10%
	2,000-3,999 RMB	122	24.40%
	Under 2,000 RMB	16	3.20%
Prior purchase volume	1 item	178	35.5%
	2-3 items	162	32.3 %
	4-5 items	44	19.4%
	More than 6 items	16	12.8%
	29		

### **Table 2 Measurements**

Constructs	Items	Loading	Source
9	The way Samsung deals with the Chinese consumers in the product-	0.93	Mayser and von
	harm crisis is fair		Wangenheim
Perceived unfairness	The company treats Chinese customers unfairly in dealing with the	0.92	(2013);Samaha <i>et</i>
reiceived uinanness	product harm crisis compared to consumers of other countries.		al. (2011)
	The way Samsung deals with the product-harm crisis in China is unfair	0.86	
	compared to other countries (Reversed).		
	I am upset about the Samsung's product recall in China.	0.91	Porath et al. (2010);
Anger	I am angry about the Samsung's product recall in China.	0.93	Fox et al., (2018)
	I feel very displeased with Samsung's product recall in China.	0.89	
Intention to Buy	I would prefer to buy domestic mobile phone brands	0.92	Assaf et al. (2011)
Domestic Brands	I would consider buying mobile phones from a Chinese brand	0.94	
D : 6	I want to keep as much distance as possible between the firm and me.	0.95	Grégoire et al.
Desire for	I want to cut off the relationship with the firm.	0.96	(2009)
Avoidance	I want to withdraw my business from the firm.	0.90	
	30		

**Table 3 Correlation matrix** 

Perceived unfairness         Anger       0.22**         Desire for avoidance       0.22**       0.19**         Buy domestic brands       0.33**       0.21**       0.49**         Perceived severity       0.08       0.34**       0.42**       0.37**       -         Prior purchase       0.26**       0.21**       0.27**       0.25**       0.07       -         CR       0.93       0.94       0.93       0.96       -       -         AVE       0.82       0.83       0.87       0.88       -       -         Note: * p<0.05, ** p<0.05, ** p<0.05	$\sim$	1	2	3	4	5	6
Desire for avoidance       0.22**       0.19**         Buy domestic brands       0.33**       0.21**       0.49**         Perceived severity       0.08       0.34**       0.42**       0.37**       -         Prior purchase       0.26**       0.21**       0.27**       0.25**       0.07       -         CR       0.93       0.94       0.93       0.96       -       -         AVE       0.82       0.83       0.87       0.88       -       -	Perceived unfairness						
Buy domestic brands       0.33**       0.21**       0.49**         Perceived severity       0.08       0.34**       0.42**       0.37**       -         Prior purchase       0.26**       0.21**       0.27**       0.25**       0.07       -         CR       0.93       0.94       0.93       0.96       -       -         AVE       0.82       0.83       0.87       0.88       -       -	Anger	0.22**					
Perceived severity       0.08       0.34**       0.42**       0.37**       -         Prior purchase       0.26**       0.21**       0.27**       0.25**       0.07       -         CR       0.93       0.94       0.93       0.96       -       -       -         AVE       0.82       0.83       0.87       0.88       -       -       -	Desire for avoidance	0.22**	0.19**				
Prior purchase       0.26**       0.21**       0.27**       0.25**       0.07       -         CR       0.93       0.94       0.93       0.96       -       -         AVE       0.82       0.83       0.87       0.88       -       -	Buy domestic brands	0.33**	0.21**	0.49**			
CR 0.93 0.94 0.93 0.96 AVE 0.82 0.83 0.87 0.88	Perceived severity	0.08	0.34**	0.42**	0.37**	-	
AVE 0.82 0.83 0.87 0.88	Prior purchase	0.26**	0.21**	0.27**	0.25**	0.07	-
· /	CR		0.94	0.93	0.96	-	-
Note: * p<0.05, ** p<0.01.	AVE	0.82	0.83	0.87	0.88	-	-

# Table 4 Results of moderated mediation analyses regarding relationship quality

Independent variable	Dependent variable	Moderator	Mediator	Index of moderated mediation	Boot SE	Boot	95% CI
						LL	UL
Perceived fairness	Desire for avoidance	Relationship quality	Anger	0.096	0.003	0.044	0.151
	Intention to buy domestic	. ,		0.124	0.042	0.082	0.166
	brands						

Table 5 Conditional indirect effect of perceived unfairness on the desire for avoidance/intention to buy domestic brands at values of relationship quality

Independent variable	Moderator	Moderator condition	Dependent variable	Condition	al indirect	95	% CI
				effe	ects		
				Effect	Boot SE	LL	UL
Perceived fairness	Relationship quality	Weaker	Desire for avoidance	0.083	0.015	0.034	0.137
		Stronger		0.156	0.063	0.073	0.232
		Weaker	Intention to buy	0.034	0.015	0.011	0.056
		Stronger	domestic brands	0.207	0.058	0.094	0.324

# **Responses to the Editor**

Thank you very much for the opportunity to revise the paper titled "Understanding Local Consumers' Reactions to Perceived Unfair Product Recalls of Foreign Brands: A Relative Deprivation Perspective". We appreciate the reviewers' constructive comments, which help us improve the article significantly. Based on their constructive comments and suggestions, we have made several important changes as below.

- adding two hypotheses about the main effects and testing the direct effect at both theoretical level and empirical level.
- revising the methodological part in a detailed way
- proofreading the whole manuscript carefully and correcting some errors

The revised texts are marked in red in the manuscript and below are our responses, detailed pointby-point (in blue font). We hope that you like the new version.

# **Responses to Reviewer 1**

Reviewer: 1

Recommendation: Accept

Comments:

Thank you for following all the requested recommendations. I am happy with the current version and will recommend acceptance of this paper. Very well done!

#### Additional Questions:

1. Originality: Does the paper contain new and significant information adequate to justify publication?: Yes.

Response: Thank you for your positive comment on the originality of our paper.

2. Relationship to Literature: Does the paper demonstrate an adequate understanding of the relevant literature in the field and cite an appropriate range of literature sources? Is any significant work ignored?: Yes.

Response: Thank you for your positive comment.

3. Methodology: Is the paper's argument built on an appropriate base of theory, concepts, or other ideas? Has the research or equivalent intellectual work on which the paper is based been well designed? Are the methods employed appropriate?: Yes.

Response: Thank you.

4. Results: Are results presented clearly and analysed appropriately? Do the conclusions adequately tie together the other elements of the paper?: Yes.

Response: Thank you.

5. Implications for research, practice and/or society: Does the paper identify clearly any implications

for research, practice and/or society? Does the paper bridge the gap between theory and practice? How can the research be used in practice (economic and commercial impact), in teaching, to influence public policy, in research (contributing to the body of knowledge)? What is the impact upon society (influencing public attitudes, affecting quality of life)? Are these implications consistent with the findings and conclusions of the paper?: Yes.

Response: Thank you for your positive comment on our implications.

6. Quality of Communication: Does the paper clearly express its case, measured against the technical language of the field and the expected knowledge of the journal's readership? Has attention been paid to the clarity of expression and readability, such as sentence structure, jargon use, acronyms, etc.: Yes.

Response: Thank you very much. We are honored and deeply appreciative of your supportive comment!

Do you want to get credit for reviewing this manuscript on Publons? [<a href="https://publons.com/in/EMERALD/" target="\_blank">what's this?</a>]

By selecting "Yes" you are opting in to the Publons service and data about this review (including your name and the review itself) will be transferred to Publons. You may opt-out of the service at any time.: Yes

# **Responses to Reviewer 2**

Reviewer: 2

Recommendation: Reject

Comments:

Please see the comments.

#### Additional Questions:

1. Originality: Does the paper contain new and significant information adequate to justify publication?: The conceptual model needs to be more comprehensive in many ways.

Response: Thank you for your informative comment. We carefully considered your suggestion and added theoretical hypothesis of the direct effect as per your following suggestions. Thanks again for helping us improve the manuscript.

(1) Across the pages, the authors emphasize or interpret the effect of perceived unfairness on consumer responses, which is the direct effect. However, there is no direct effect in the conceptual model.

In the response, the authors said they focus on the moderated mediator effect without explaining the theoretical reason for omitting the direct effect. In fact, in the conclusion section, the authors' interpretation is mainly about the direct effect, which is missing in the conceptual model and estimation results (see the details in the comments regarding the discussion section).

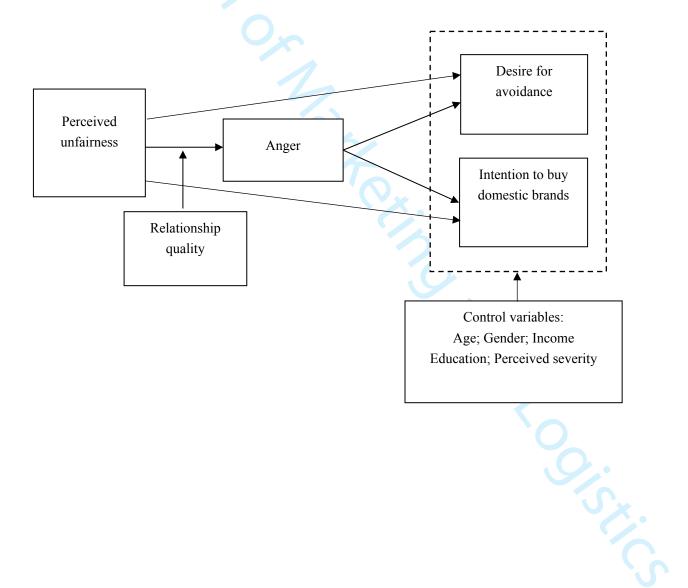
Response: Thank you for emphasizing this point. As per your comments, we revised the framework

by adding the direct effect to make our whole paper more consistent. Accordingly, we carfully revised the hypotheis development and analysis part.

Our revised hypotheses and framework is as below:

- H1: Perceived unfairness of the product recall of a foreign brand positively influences local consumers' desire for avoidance of the foreign brand.
- H2: Perceived unfairness of the product recall of a foreign brand positively influences local consumers' intention to buy domestic brands.
- H3: The impact of perceived unfairness on local consumers' desire for avoidance of the foreign brand is mediated by local consumers' anger.
- H4: The impact of perceived unfairness on local consumers' intention to buy domestic brands is mediated by local consumers' anger.
- H5: The mediation effect of anger in the relationship between perceived unfairness and desire for avoidance of the foreign brand (H5a) and the relationship between perceived unfairness and intention to buy domestic brands (H5b) is positively moderated by relationship quality.

Figure 1: Theoretical Framework



Overall, you will find that our paper has been attentively revised. We hope you will like the new version.

(2) According to the authors' text analysis, there are more consumer responses, e.g., opinions related to other foreign brands and opinions related to the role of the government. Why don't the authors explore all the other responses based on their study 1 results?

Response: Thank you for this suggestion. The reason why we don't explore all the responses is that many dependent variables in a paper make the research question too complex if we study all five variables. Moreover, the purpose of our study is to explore the attitude and response towards the scandal-involved brand and its domestic competing brands. We therefore focuse on the two relevant dependent variables. However, we agree with your great insigts that these other responses can be explored in future work.

(3) Anger is used for the deprivation perspective. Why is only 'anger' considered for the mediator though there are other deprivation-related concepts such as anger, grievance, moral outrage, and resentment on page 5? These related concepts could be used in addition to or substitute for the concept of 'anger.'

Response: Thank you for this comment. Indeed, grievance, moral outrage, resentment, are emotions that may occur when facing Relative deprivation. However, because anger is the most significant and substantial emotion due to Relative deprivation (RD)(e.g., Smith & Pettigrew (2014), Smith et.al. (2012), Leach, Iyer & Pedersen (2007)), so we focus on anger as the mediator in this paper. Admittedly, future research can explore other mediators.

#### References

- Smith, H. J., & Pettigrew, T. F. (2014). The subjective interpretation of inequality: A model of the relative deprivation experience. *Social and Personality Psychology Compass*, 8(12), 755-765.
- Smith, H. J., Pettigrew, T. F., Pippin, G. M., & Bialosiewicz, S. (2012). Relative deprivation: A theoretical and meta-analytic review. Personality and social psychology review, 16(3), 203-232.
- Leach, C. W., Iyer, A., & Pedersen, A. (2007). Angry opposition to government redress: When the structurally advantaged perceive themselves as relatively deprived. *British Journal of Social Psychology*, *46*(1), 191-204.
- 2. Relationship to Literature: Does the paper demonstrate an adequate understanding of the relevant literature in the field and cite an appropriate range of literature sources? Is any significant work ignored?: Literature review is good.

Response: Thank you for your confirmative comment.

- 3. Methodology: Is the paper's argument built on an appropriate base of theory, concepts, or other ideas? Has the research or equivalent intellectual work on which the paper is based been well designed? Are the methods employed appropriate?: Text analysis results
- (1) It should be okay for 3 researchers to look into 16,449 comments manually. However, in the era of the prevalence of text mining (there are many free software programs/algorithms), the current approach would not be replicable or pursued by other researchers.

Response: Thank you for this comment. It's difficult to analyze consumers' attitudes and reactions because the comments objects are different and importantly there are not well-established tools for Chinese text analysis.

(2) The interpretation brings up some doubts about the authors' methodology. According to the authors, the comments are classified into 1) reactions (e.g., attitudes and sentiments), 2) opinions related to other foreign brands, 3) opinions related to domestic competing brands, 4) opinions related to the government, and 5) others. The authors chose the first and third topics only though other topics (i.e., options related to other foreign brands (probably, Apple iPhones) and the government action) can also be an important factor. For example, another Y variable such as 'Intention to buy other foreign brands' can be added to understand the unfair product recall in a more comprehensive manner.

Response: Thank you for this suggestion. However, as impact of 2) opinions related to other foreign brands may be different according to the country of origin of the foreign brands, it may get complex to explore the effect in this paper. We look forward to exploring this in the future. Besides, research on 4) opinions related to the role of the government in dealing with the crisis is somewhat politically sensitive in China, which makes us difficult for such research.

- (3) Finding one is that an unfair product recall trigger 'negative emotional' reactions. The authors give some examples below:
- "The point is that the company knows that it can and dares to fool the Chinese and that it can't fool the Americans."
- "Boycott Korean goods, boycott Samsung!"
- "From now on, Chinese people who buy Samsung phones are really xxx."

The examples above used some negative words (fool, boycott, xxx), but it is unclear whether emotional reactions (such as some adjectives related to anger or deprivation) are actually stated.

The comment examples of repeated Samsung users are below, but they do not show that the emotion and intention to avoid Samsung are stronger among the repeated users.

"Bye-bye"

"I swear I will never buy Samsung products in my life."

In summary, though the authors claim that "those comments provided preliminary support to our hypotheses about the role of anger and demonstrated that perceived unfairness increased local consumers' desire for avoidance of the involved foreign brand," the examples do not strongly support the hypotheses (relationships), but they insufficiently show some examples of individual concepts in the conceptual model.

Response: Thank you for bringing this point up. We analyzed the comments to uncover consumers' reactions and illustrated some instances for description in the article because we can not present all

the comment due to the length limitation of a article. By showing some cased, we can help reader understand how local consumers react to foreign brands' unfair product recall, which matches well with our research purpose, and is a typical practice in netnography (Kozinets, 2002). Finally, by arguing that we argue that the findings based on netnography *preliminary* support to our hypotheses, we then propose the necessity of a second study to test our framework in a more rigor way. Overall, two studies provide converging evidence to our framework.

(4) The conclusion of Finding two (The preference for domestic products increased) is that "These findings suggested that perceived unfairness increased local consumers' preference for domestic products, which lent support to our theoretical framework." The conclusion can be simplified as 'unfair recall -> intention to buy domestic brands,' which is the direct effect that the authors do not examine.

Response: Thank you. We have revised the research model by adding hypotheses about the direct effect of perceived unfairness to avoidance of the original brand and preference for the domestic brand.

In conclusion, the text analysis is not much rigorous to support their conceptual model but shows the descriptive aspects.

Response: Thank you for your informative comment. We agree that text analysis can only provide preliminary validation of our research hypotheses, and that's why after that we used an empirical method, a survey, to further verify our conceptual model and all the hypotheses.

- 4. Results: Are results presented clearly and analysed appropriately? Do the conclusions adequately tie together the other elements of the paper?: H4, Table 5, and Table 6
- (1) H4 is about the effect of relationship quality (moderator) on anger (mediator): The positive impact of perceived unfairness on anger is more salient for high relationship-quality local consumers than low relationship-quality local consumers.

Table 5 is about the moderated mediation effect, and Table 6 is also about moderated mediation effect by the level of relationship quality (or conditional indirect effect).

The authors need to reorganize the hypothesis and tables as the current logical flow does not clearly show the purpose of the analysis.

If the purpose is to examine the effect of relationship quality on anger, as stated in the hypothesis, the authors need to interpret the results in Table 5 and Table 6 for this purpose. On page 16, the authors say, "Taken together, the results indicated that the mediating role of anger in driving the effect of perceived unfairness on intention to buy domestic brands is moderated by the level of relationship quality. In summary, H4 was supported by the moderated mediation analysis." The sentences are confusing. Thus, the authors may want to state first that they prove H4 indirectly by showing the moderated mediation analysis.

If the purpose is to examine the moderated mediation effects, the authors need to change the hypothesis.

Response: Thank you for your informative comment. As mentioned before, we have reorganized the whole framework and revised the analysis (p. 16).

The new analysis part was as below, we hope you will find it clear.

# 5.4 Hypothesis testing

Structural equation modeling (SEM) was used to test the theoretical model depicted in Figure 1 other than the moderating effect of relationship quality. Results showed that the model fitted the data well, as evidenced by the goodness-of-fit measures ( $\chi^2_{66} = 132.31$ , p = 0.000; NFI = 0.94; CFI = 0.94; SRMR = 0.05; RMSEA = 0.05). The results revealed that perceived unfairness positively influenced anger desire for avoidance (b = 0.67\*\*\*) in support of H1, the intention to buy domestic brands (b = 0.58\*\*) in support of H2, and anger ((b = 0.49\*\*). Meanwhile, the parameter estimates revealed that anger had a positive and significant effect on desire for avoidance (b = 0.12\*\*\*), and intention to buy domestic brands (b = 0.08\*\*). To test the mediation effect regarding H3, we employed Bootstrapping method with Model 4 (Hayes, 2015) with desire for avoidance as the dependent variable, perceived unfairness as the independent variable, and anger as the mediator variable while controlling for perceived severity and demographic variables. The results indicated that the indirect effect was positive and significant (b = 0.16\*\*\*; 95% bias-corrected CI: [0.041, 0.332]), supporting H3. Likewise, we conducted the mediation test for H4 using Bootstrapping method with intention to buy domestic brands as the dependent variable, perceived unfairness as the independent variable, and anger as the mediator variable while controlling for perceived severity and demographic variables. The results indicated that the indirect effect was positive and significant (b = 0.11\*\*; 95% bias-corrected CI: [0.026, 0.240]), supporting H4.

Furthermore, the Bootstrapping method was employed to test the moderating effect of relationship quality regarding the H5 (Hayes, 2015). As Table 4 indicated that when the dependent variable is desire for avoidance, the moderated mediation effect was positive and the Boot confidence interval (CI) of the index of the moderated mediation did not contain zero (b = 0.096; 95% bias-corrected CI: [0.044, 0.151]). Thus, H5a was supported. More specifically, Table 5 indicated that when relationship quality was weaker, perceived unfairness had an indirect effect on desire for avoidance via anger (b = 0.083; 95% bias-corrected CI: [0.034, 0.137]). When relationship quality was stronger, perceived unfairness had a stronger indirect effect on desire for avoidance via anger (b = 0.156; 95% bias-corrected CI: [0.073, 0.232]). Taken together, the results indicated that the mediating role of anger in driving the effect of perceived unfairness on desire for avoidance is moderated by relationship quality (H5a).

# -----Insert Table 4 about here-----

When the dependent variable was intention to buy domestic brands, the moderated mediation effect was positive and the Boot CI of the index of the moderated mediation did not contain zero (Table 4, b = 0.124; 95% bias-corrected CI: [0.082, 0.166]), supporting H5b. More specifically, More specifically, Table 5 indicated that when relationship quality was weaker, perceived unfairness had an indirect effect on intention to buy domestic brands via anger (b = 0.034; 95% bias-corrected CI: [0.011, 0.056]). When relationship quality was stronger, perceived unfairness had a stronger indirect effect on desire for avoidance via anger (b = 0.207; 95% bias-corrected CI: [0.094, 0.324]). Taken together, the results indicated that the mediating role of anger in driving the effect of perceived unfairness on intention to buy domestic brands is moderated by relationship quality (H5b).

#### -----Insert Table 5 about here-----

(2) Separate from Point (1), the authors claim that the moderated mediation effects are proven based on the significance of the coefficients in Table 6. However, to check the stronger/weaker indirect effects, the authors need to do pairwise contrasts. For example, it is not statistically tested whether the coefficients 0.083 and 0.156 of the indirect effects on Desire for avoidance in Table 6.

Response: Thanks for your comment. There was a statement mistake in the original manuscript and we have changed it in the latest manuscript. The moderated mediation effect is statistically verified through table 5 which presented that the Boot confidence interval (CI) of the index of the moderated mediation did not contain zero, which indicating the differece of mediation in different groups of a moderator.

- 5. Implications for research, practice and/or society: Does the paper identify clearly any implications for research, practice and/or society? Does the paper bridge the gap between theory and practice? How can the research be used in practice (economic and commercial impact), in teaching, to influence public policy, in research (contributing to the body of knowledge)? What is the impact upon society (influencing public attitudes, affecting quality of life)? Are these implications consistent with the findings and conclusions of the paper?:
- (1) The topic of the effect of unfair product recalls caused by a foreign brand on the responses of local consumers is interesting. However, the first contribution is doubtful in that the current conceptual model is not just applied to this topic. Perceived unfairness can arise from any recalls even by local brands. A more comprehensive approach is necessary.

Response: Thank you for your supportive comment on our research topic. Our framework helps explain local consumers' reactions to unfair product recalls caused by a foreign brand because the impact of unfairness caused by such events remains unknown in prior product harm/ recall literature. More importantly, we explain how such events influence consumers' reactions about avoiding the involved brand and domestic brands. These dependent variables are very unique to this research context (foreign brands' unfair recall) , thus enriching our understanding of the impact of international product recalls.

The second contribution may be based on the direct effect, which the authors did not examine. Also, it is not valid based on this research to claim that the unfair product recall strategies of a foreign brand may hurt other foreign brands as local consumers' preference for their domestic brands may increase. For example, consumers may choose Apple over Samsung and Chinese brands, which is not tested

Response: Thank you for pointing this out. Indeed "unfair product recall strategies of a foreign brand may hurt other foreign brands as local consumers' preference for their domestic brands may increase." is our inference because the second direct effect suggest that consumers' preference for domestic brand increases, which should undermine the performance of foreign brands overall.

(2) Managerial implications are too broad. For example, the sentence below is normative and can be claimed not based on the current research.

"Our research suggests that managers should avoid uneven recall strategies when they cope of with product-harm crises"

The authors need to develop more specific implications based on their findings regarding the effect of anger and relationship quality.

Response: Thank you for inspiring us to expand our managerial implications. As suggested by the reviewer, We now include a new implication for crisis managers regarding the effect of anger and relationship quality (p. 18). Specially, we propose that firms are supposed to pay more attention to mitigating consumers' fairness perception. Additionally, we hold that the scandal brand could mitigate the negative impact of unfair recall strategies through various methods of reducing consumer anger.

In addition, the other implication mentioned by the authors is, "the adoption of an unfair recall strategy by a foreign brand can positively affect local consumers' willingness to purchase domestic brands," which is also about the direct effect. The authors need to utilize their findings related to the moderator and mediator to explain the mechanism of consumer responses, a relative deprivation perspective as shown in the title, and develop a way to positively change consumer responses.

Response: Thank you for asking us to add detail regarding this point. We have demonstrated the direct effect of an unfair recall strategy by a foreign brand on consumers' desire for avoidance and willingness to purchase domestic brands (p. 6-8). Furthermore, we have explained why consumers switch to domestic competing brands in discussion based on relative deprivation theory (p. 19).

6. Quality of Communication: Does the paper clearly express its case, measured against the technical language of the field and the expected knowledge of the journal's readership? Has attention been paid to the clarity of expression and readability, such as sentence structure, jargon use, acronyms, etc.: In general, it is okay, but some typos need to be corrected.

Response: Thank you so much. We have read the manuscript carefully, and corrected all errors.

Overall, by following your suggestions to address all the issues raised, we have greatly improved the quality and contributions of the paper. This has been a very productive and rewarding experience for us. We hope that you like the new version.

Do you want to get credit for reviewing this manuscript on Publons? [<a href="https://publons.com/in/EMERALD/" target="\_blank">what's this?</a>]

By selecting "Yes" you are opting in to the Publons service and data about this review (including your name and the review itself) will be transferred to Publons. You may opt-out of the service at any time.: Yes