

Exploring consumers' perceptions of corporate social responsibility and negative responses to e-commerce service failures: A stress and coping perspective

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Research Article

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Abstract

The current study investigates whether consumers' perceptions of corporate social responsibility (CSR) reduces their negative responses to e-commerce service failures through applying the transactional theory of stress and coping. The data are collected from 297 student consumers through a self-administered questionnaire. Results showed that consumers' perceptions of CSR negatively influenced their attributions of responsibility for experiencing e-commerce service failures. The attributions of responsibility negatively influenced the feelings of guilt but positively influenced the feelings of regret. Guilt is negatively related to behaviors of engaging in negative word-of-mouth and reducing dependence on platforms, while regret is positively related to these consumers' behaviors. The current study contributes to the existing literature by expanding our understanding of relationships among perceptions of CSR, attributions of responsibility, negative emotions and responses. Yet our study provides theoretical support for improving CSR strategies and policies in the field of e-commerce.

1. Introduction

With the continuous maturity and development of e-commerce technology, consumers are more likely to use convenient and fast e-commerce platforms to satisfy their needs that are essential to daily life. It has stimulated the astonishing commercial development of e-commerce platforms (Li & Huang, 2019). While e-commerce is quickly becoming one of the prevalent industries worldwide, the problem of corporate social responsibility (CSR) of e-commerce has been frequently exposed in the press and criticized by the public. These issues have been gradually changing consumers' habits of online consumption and tend to keep consumers away from e-commerce platforms (Mondal et al., 2021). It can be seen that such a problem has seriously hindered the development of the e-commerce industry. How to improve and enhance the CSR practices of e-commerce and thus promote the healthy development of the entire e-commerce market is an important issue that cannot be ignored by academia and industry.

Sheldon (2004) first introduced the concept of CSR as the social responsibility of enterprise operators to satisfy the needs of all kinds of populations both inside and outside the enterprise. Considering the context of Chinese e-commerce industry, the current study refers CSR of e-commerce as commitments of e-commerce enterprises to the broader obligations involved as individual enterprises and as core organizations with unique public attributes of service transmission within the platform ecosystem. Such obligations include not only fulfilling bottom-line requirements and meeting the reasonable expectations of consumers, but also contributing redundant resources to the greatest extent possible. Considering that consumers' responses to enterprises depends on their perceptions of the socially responsible activities undertaken by enterprises (Lichtenstein et al., 2004), the interactive relationships based on consumers' perceptions of CSR of e-commerce is focused in this study.

Since an effective CSR program brings numerous positive effects to an enterprise. Accordingly, many scholars pay attention to whether CSR reduces negative consumer responses to experiencing service failures and the influencing mechanism of CSR. Service failure is classified into outcome failures and process failures. The former refers to the failure of an enterprise in fulfilling basic consumer needs, while the latter refers to the failure in the delivery process (Forbes et al., 2005). Considering the service failure in e-commerce is

characterized by a mismatch between the actual responsible party and the affected party (Chatterjee, 2018), this study defines e-commerce service failure as a situation in which an e-commerce platform is unable to act effectively in regulating and correcting the misconduct of third-party provider for various reasons, resulting in consumer dissatisfaction. Unlike traditional service failures, such service failures are also subjective in terms of attributions of responsibility to consumers.

Service failure is a typical state of social exchange imbalance (Du & Fan, 2007). After experiencing service failures, consumers are likely to make negative responses and negative emotions such as regret and anger (Grégoire et al., 2010; Harrison-Walker, 2019; Joireman et al., 2015; Le & Ho, 2020). Subsequently, consumers may also engage in coping strategies to relieve negative emotions that are detrimental to enterprises, such as complaints (Grégoire et al., 2010), switching to alternatives (Le & Ho, 2020), engaging in negative word-of-mouth (Harrison-Walker, 2019; Le & Ho, 2020), and reducing loyalty (Bolton & Mattila, 2015; Wang et al., 2011). Bolton and Mattila (2015) conducted a study in the context of hotels and found that CSR could buffer the negative effects of service failures by increasing perceived warmth by consumers. While taking coffee shops as the study context, Joireman et al. (2015) found that CSR could reduce anger and regret of consumers who experience service failures through perceived consistency in values, as well as increasing the guilt for having harmed the enterprise. These emotions subsequently may reduce the negative word-of-mouth and increase the positive word-of-mouth and repurchase intentions. Although existing research has recognized the important role of CSR in reducing negative impacts of service failures, such research has been undertaken in an offline context. It remains to be explored whether CSR can reduce negative responses of consumers who experience online service failures, especially in the field of e-commerce.

The transactional model of stress and coping theory is proposed by Lazarus and Folkman (1984). This theory explains the process of how individuals assessing external stressors and coping with stressful events. It has three main concepts, namely, cognitive appraisals, emotions, and coping strategies. According to the theory, the individuals will cognitively appraise their experiences of e-commerce service failures which elicits negative emotions, then they will deploy coping strategies to cope with those experiences and emotions.

Cognitive appraisal refers to an individual's evaluation of the encountered external event which determines whether coping strategies will be activated. Cognitive appraisal includes two core forms of assessment, namely, primary appraisal and secondary appraisal (Lazarus & Folkman, 1984). Cognitive evaluation consists of two core forms of assessment, primary and secondary. Primary appraisal focuses on whether the external event is irrelevant, beneficial, or stressful for the individual. Secondary appraisal refers to the individual's assessment of the options available to improve the relationship with the external environment. It determines how to cope with the stressful events and the resulting distress. There are three types of coping strategies, namely, blame or credit, coping potential, and future expectations (Smith & Lazarus, 1990). According to the theory, the consumers' perceptions of CSR can be considered as a threatening evaluative stressor. Specifically, when consumers perceive that the CSR of e-commerce is weak, they tend to believe that the platform will lead to the potential losses or damages in the future. In contrast, when consumers perceive that the CSR of an e-commerce enterprise is well-established, they tend to believe that their own moral standards will be lost or compromised if they do not support the e-commerce. On the other hand, they believe that if they wrongly blame the e-commerce platform and behave towards it in a way that is at variance with own moral standards or social norms, leading to a situation where their moral standards will be compromised. Therefore,

consumers' perceptions of CRS provides the basis for evaluating the extent to which consumers attribute responsibility for the service failures to the platform. This study considers consumers' perceptions of CSR as the primary appraisal of the model and attributions of responsibility as the secondary appraisal.

In the context of service failures, loss (Hoffman et al., 1995) and attribution (Klein & Dawar, 2004; Laczniak et al., 2001) are all the frequently mentioned factors contributing to negative emotions. Joireman (2015) found that not only do consumers experience emotions such as anger and regret, but also guilt, which is derived from consumers' values regarding the social responsibility. That is, when a company fulfils the social responsibility in line with consumers' values, consumers who experience service failures experience are likely to have the feeling of guilt. They will feel guilty about harming the enterprise by, for example, engaging in negative word-of-mouth. To examine the emotional experience of e-commerce service failures, we conducted 30 semi-structured interviews ($n = 30$) prior to this study. Through content analysis of the interview data, we found that rather than anger, regret and guilt would be elicited in the context of e-commerce service failures due to low prices provided on platforms, excessive trading transactions, low switching costs and lack of direct interaction. The current study thus involves guilt and regret as negative emotions pertaining to e-commerce service failures. In this study, consumers' guilt refers to the anticipatory guilt. It occurs where individuals think about acting against personal moral standards such as the behaviour of harming platforms. The regret arises when individual discover that they would have obtained better outcomes if they have different choices (Harrison-Walker, 2019; Li et al., 2021; Wu & Wang, 2017).

Coping is the cognitive and behavioural efforts to master or tolerate the demands (Lazarus & Folkman, 1984; Smith & Lazarus, 1990). There are two types of coping. One is problem-focused coping, which aims to solve the problem and address the causes of stress. The other type of coping is emotion-focused coping, which aims to regulate the negative emotions that arise from the stressful events. Problem-focused coping strategies are typically used when individuals believe they have sufficient resources to change the situation, and conversely, emotion-focused coping strategies are used (Smith & Lazarus, 1990). Given that consumers who experience e-commerce service failures, that is, when the platform's negligence leads to irreparable losses, often adopt the strategies of switching to alternatives or engaging in negative word-of-mouth (Grégoire et al., 2010). Therefore, only these two strategies are considered in this study. However, consumers are more likely to take actions to reduce their dependence on an e-commerce platform, thereby gradually switching to another one (Koul et al., 2016; Sheu, 2014). That is, it is not practical for consumers to directly switch to another e-commerce platform in a short period of time due to the small number of e-commerce platforms at present. Therefore, switching to alternatives is amended to the strategy of reducing dependency in this study.

2. Theory And Hypothesis Development

The current study assumes that for consumers who experience service failures in the field e-commerce, attributions of responsibility are constructed spontaneously, and that consumers tend to rely on information about CSR in the process of developing the attributions of responsibility (Klein & Dawar, 2004). Therefore, consumers' perception of CSR on e-commerce is considered as the primary appraisal of the constructed model, thus attribution of responsibility is considered as the secondary appraisal, guilt and regret are both involved for investigating consumers' negative emotional experience, engaging in negative word-of-mouth, and reducing dependence are both involved for investigating consumers' coping strategies.

The attribution of responsibility in this study refers to the extent to which consumers who attribute e-commerce service failures to be caused by the platform. According to the transactional theory of stress and coping (Lazarus & Folkman, 1984), consumers who experience service failures are likely to try to find the reasons why the service failures occurred. Due to the various causes, consumers have different judgments about the severity of the same e-commerce service failures. In this case, the e-commerce platform is likely to be deeply involved in the relationship between the consumer and the supplier. While the platform's CSR is the basis for consumers' primary appraisal, consumers are likely to evaluate the extent to which e-commerce enterprises should be held responsible for the service failures they experienced. Besides, the reputation of an enterprise is associated with consumers' attributions of responsibility (Laczniak et al., 2001). That is, consumers tend to attribute more responsibility to platforms with low reputation. Others also consider CSR as a dimension of one's reputation (Johnson et al., 2019). Therefore, we presume that when the perception of CSR of e-commerce is higher, the degree to which consumers attribute the responsibility to the platform for service failures is lower. The first hypothesis is formally stated as follows:

H1. Perceptions of CSR of e-commerce will negatively influence consumers' attributions of responsibility to e-commerce platforms.

The transactional theory of stress and coping suggests that the attribution of responsibility, namely, secondary appraisal, influences the type of emotion generated (Lazarus & Folkman, 1984; Smith & Lazarus, 1990). Emotions in the context of service failures are generally divided into introverted negative emotions and extroverted negative emotions. Guilt, as a self-conscious emotion, is one of the typical introverted negative emotions. Guilt arises when individuals believe that they violate personal or social moral standards. For consumers, guilt is then a negative emotion caused by behavioral decisions to violate their personal values or norms (Burnett & Lunsford, 1994). Consumers are likely to experience guilt as a result of the discrepancy between the undesirable behaviors taken by themselves and the behaviors they should have taken in accordance with their personal or social values. There are three main forms of guilt, namely, reactive guilt, existential guilt, and anticipatory guilt. Given that anticipatory guilt lasts longer, is stronger and more easily evoked, and also is more important and effective in guiding one's behavior (Burnett & Lunsford, 1994), the anticipatory guilt is used in this study. For consumers who experience e-commerce service failures, guilt can arise if they perceive that the greater extent of the service failures is not caused by the platform and do something not beneficial to the platform, such as spreading negative word-of-mouth or reducing dependence. Therefore, we presume that the higher the degree of which consumers believe that the platform is responsible for services failures, the less level of guilty consumers expect to experience if they do something harmful to the platform, and vice versa. The hypothesis is formally stated as follows:

H2a: Consumers' attributions of responsibility to e-commerce platforms will negatively influence their guilt.

As a cognitive emotion, the type of regret can vary depending on one's attributions of responsibility. Individuals who blame others leads to other-blame regret, while blaming oneself leads to self-blame regret. Self-blame is considered a necessary condition for experiencing regret (Wu & Wang, 2017). However, there are situations where regret can be experienced without self-blame. For example, when consumers buy the wrong products that do not meet their quality expectations or preference expectations, they may blame the supplier for not proving enough valid information. Considering that other-blame regret is a greater predictor of

consumer dependence and negative word-of-mouth than self-blame regret (Le & Ho, 2020; Wu & Wang, 2017), and better fits the purpose of this study, other-blame regret is used in the study. To be specific, in the context of e-commerce service failures, if consumers believe that the platform is less socially responsible, they tend to attribute a greater degree of blame to the platform, resulting in a higher level of regret, and vice-versa. Therefore, we presume that when the higher the degree of which consumers believe that the platform is responsible for services failures, the higher the level of regret consumers expect to experience. Thus the hypothesis is formally stated as follows:

H2b: Consumers' attributions of responsibility to e-commerce platforms will positively influence their regret.

According to the transactional theory of stress and coping, when consumers experience negative emotions, they are then in a state of disequilibrium and are likely to choose different coping strategies for dealing with negative emotions and returning to a normal state (Smith & Lazarus, 1990). Individuals may avoid committing undesirable behaviors that differ from their personal moral standards or the social norms in order to avoid developing the feeling of guilt (Joireman et al., 2015). That is, if consumers believe that the responsibility does not lie with the platform, they are less likely to engage in negative behaviors towards the platform in order to avoid feelings of guilt. Therefore, the hypothesis is formally stated as follows:

H3a: Guilt will negatively influence the behavior of engaging in negative word-of-mouth of the platform.

H3b: Guilt will negatively influence the behavior of reducing dependence on a particular platform.

It is notable that most previous studies have not distinguished between other-blame regret and self-blame regret. Instead, they only used self-blame regret to explore consumers' regret and negative response and demonstrating that regret significantly influenced the relationship between negative word-of-mouth and the strategy of switching to alternatives (Huang & Cai, 2021; Li et al., 2021; Zhang & Yu, 2020). Nevertheless, other recent studies distinguished between self-blame regret and other-blame regret and found that consumers who experience other-blame regret would engage in more activities such as spreading negative word-of-mouth than those who experience self-blame regret (Wu & Wang, 2017). In other words, other-blame regret is more likely to bring about a stronger feeling of loss of balance. As a result, consumers may cope with a greater intensity, accordingly, passing on more negative word-of-mouth or quickly reducing the dependence and thus made less transactions on that platform. Therefore, the hypothesis is formally stated as follows:

H3c: Regret will positively influence the behavior of engaging in negative word-of-mouth of the platform.

H3d: Regret will positively influence the behavior of reducing dependence on a particular platform.

Figure 1 shows the conceptual model of this study. The conceptual model articulates how perceptions of CSR (primary appraisal) affect attributions of responsibility, regret, guilt, and negative word-of-mouth in the field of e-commerce.

3. Methods

This study is evaluated and approved by the university research ethics committee before initiation.

Considering that participants are required to have rich experience in using e-commerce platforms and great

awareness of responsible consumption, university students are aimed for this study. The participants are randomly selected and informed of the information of the current study before participation. A total of 297 students from a university in China voluntarily participated in this study and successfully completed the online questionnaires (47.1% male, 52.9% female, 56.6% in the 18–22 age group, 28.3% in the 23–26 age group, 15.2% in the 27 and above age group). All of them are paid 5 RMB for completing the questionnaires.

Participants completed questionnaires assessing their prior experience of e-commerce service failure in the past 6 months as shown in Table 1: (1) 5 items from perceptions of CRS; (2) 3 items from attributions of responsibility; and (3) 3 items from guilt; (4) 3 items from regret; (5) 4 items from the engagement of negative word-of-mouth; (6) 4 items from consumers' behaviour of reducing dependence. A five-point system is applied to each scale.

Table 1
Measurement scales of this study

Construct	Item	Factor loading
Perceptions of CSR (Lichtenstein et al., 2004)	1. The platform is dedicated to making society better with technological innovation.	0.818
	2. The platform leverages its strengths (e.g., technology) to help solve social problems.	0.824
	3. The platform focuses on charitable and philanthropic activities in its daily operations.	0.740
	4. The platform has environmentally friendly policies and management practices.	0.828
	5. The platform has a sound governance mechanism to regulate the parties within the platform to proactively fulfil their responsibilities.	0.829
Attributions of responsibility (Hsu et al., 2021)	6. The platform was the key contributor to service failures.	0.811
	7. Such service failure was repeated frequently on the platform.	0.818
	8. The platform was able to prevent the service failure but failed to do so.	0.775
Guilt (Joireman et al., 2015)	9. I would feel guilty if I spread negative information about the platform.	0.855
	10. I would be sorry to spread negative information about the platform to my friends and family.	0.795
	11. I would not feel calm and comfortable if I passed on negative information about the platform.	0.875
Regret (Le & Ho, 2020)	12. Looking back on that time, I feel that I would have made a better choice and would pick a different platform.	0.862
	13. If I could do it all over again, I would pick a different platform.	0.857
	14. Using this platform gave me a bad feeling.	0.873
Engaging in negative word-of-mouth (Joireman et al., 2015)	15. I will spread negative information about the platform.	0.792
	16. I will disparage the platform in front of people around me.	0.801
	17. I will tell people around me not to trade on the platform.	0.759
	18. I will post negative comments about the platform to others.	0.781
Reducing dependence (Grégoire & Fisher, 2006)	19. I will stop trading on the platform.	0.815
	20. I will spend less money on the platform.	0.715
	21. I will devote my effort and money in other platforms.	0.849
	22. I will reduce the frequency of trading on the platform.	0.854

To assess the common method bias, two methods are used in this study. Harman’s one-factor test is used firstly (Podsakoff & Organ, 1986). The covariance of rotated factor loadings is 34.76%, which is below the recommended value of 50%. The correlation coefficient between the constructs is examined accordingly. The maximum value of the correlation coefficient between the constructs in this study is less than the threshold value of 0.9, thus ruled out the methodological bias.

For assessing the reliability and validity of the conceptual model of this study, we use Cronbach’s alpha and discriminant validity methods. Since the data collected often fails to follow a multivariate normal distribution, we use PLS-SEM to test the predicative capability of the model and the hypothesized relationships (F. Hair Jr et al., 2014). Following (Nitzl et al., 2016), we perform bootstrapping to further test the mediation effects.

4. Results

Cronbach’s alpha (α) is widely used in reliability analysis and is a coefficient that represents the internal consistency. The larger its value, the better the correlation between constructs (Guilford, 1950). As shown in Table 2, Cronbach’s alpha of six constructs is within the range of 0.843–0.904, which indicates that the model of this study has a relatively higher reliability. Since all factor loadings are greater than 0.7 and AVE values are greater than 0.5 (F. Hair Jr et al., 2014), also indicating that the model is stable and reliable.

Table 2
Assessment of reliability and validity of the model

Constructs	AVE	CR	α	1	2	3	4	5	6
Perceptions of CSR	0.654	0.904	0.867	0.809					
Attributions of responsibility	0.643	0.843	0.723	-0.409	0.802				
Guilt	0.710	0.880	0.795	0.558	-0.429	0.842			
Regret	0.746	0.898	0.830	-0.675	0.481	-0.504	0.864		
Engaging in negative word-of-mouth	0.614	0.864	0.790	-0.622	0.469	-0.555	0.682	0.783	
Reducing dependence	0.657	0.884	0.824	-0.710	0.431	-0.543	0.715	0.659	0.810

The discriminant validity is then adopted to test the structural validity of the model. A great structure requires that the average variance extracted (AVE) values of variables should relate more strongly to their own factor than to another factor (Fornell & Larcker, 1981). In this study, the square roots of AVE of variables is higher than correlations between constructs, indicating that the model possesses great validity, as can be seen from Table 2.

Once the reliability and validity of the model is established, coefficient of determination (R^2), blindfolding predictive relevant (Q^2), path coefficients are employed for accessing the predictive capability of the model and evaluate the hypothesised relationships within the model. The R^2 for attributions of responsibility, guilt, regret, engaging in negative word-of-mouth, and reducing dependence are 0.167, 0.184, 0.231, 0.519,

respectively, indicating that the model has a great level of predictive accuracy. The Q^2 for attributions of responsibility, guilt, regret, engaging in negative word of mouth and reducing dependence, are 0.121, 0.160, 0.296, 0.337, respectively, indicating that the model has a great level predictive relevance.

To test the hypothesized relationships, the path coefficients' significance is assessed. As shown in Fig. 2, perceptions of CSR has a strong negative impact on attributions of responsibility when experiencing e-commerce service failures ($\beta = -0.409$, $p < 0.001$), indicating that Hypothesis 1 is supported. Attributions of responsibility negatively affects consumers' guilt ($\beta = -0.429$, $p < 0.001$) and positively affects consumers' regret ($\beta = 0.481$, $p = 0.000$), indicating that Hypothesis 2a and 2b are supported. Consumers' guilt is significantly and negatively associated with the behaviours of engaging in negative word-of-mouth ($\beta = -0.272$, $p < 0.001$) and reducing dependence ($\beta = -0.232$, $p < 0.001$), indicating that Hypothesis 3a and 3b are supported. Consumers' regret is significantly and positively associated with the behaviours of engaging in negative word-of-mouth ($\beta = -0.539$, $p < 0.001$) and reducing dependence ($\beta = -0.594$, $p < 0.001$), indicating that Hypothesis 3c and 3d are supported.

To further evaluate the mediating relationships of the structural equation model, this study also conducted a mediation test for all possible paths. Although PLS-SEM-based studies often use Sobel test when verifying the mediation effects. It is important to note that the use of the Sobel test for mediating effects requires that the sample obeys a normal distribution. However, even if the sample obeys a normal distribution, in most cases the distribution of the sample will tend to be asymmetric (F. Hair Jr et al., 2014). This situation is very common in structural equation models with PLS based studies. Therefore, for testing structural equation models using PLS, it may be inappropriate to then apply the Sobel test for estimating mediating effects. A more suitable method could be that two-step bootstrapped confidence intervals mediation test (Nitzl et al., 2016). As shown in Table 3, attributions of responsibility partially mediates the effect of perceptions of CSR on consumers' guilt and regret. Guilt and regret partially mediate the effect of attributions of responsibility on engaging in negative word-of-mouth, but fully mediate the effect of attributions of responsibility on reducing dependence. Accordingly, attributions of responsibility and guilt, as well as attributions of responsibility and regret, play a chain mediating role between perceptions of CSR and negative responses involving engaging in negative word-of-mouth and reducing dependence, respectively.

Table 3
Results of mediation test

Paths	Indirect effect		p < 0.05	Direct effect		p < 0.05	Type
	(95% CI)			(95% CI)			
CSR→Attribution→Guilt	0.043	0.170	Y	0.337	0.577	Y	Partially
CSR→Attribution→Regret	-0.167	-0.044	Y	-0.680	-0.461	Y	Partially
Attribution→Guilt→Negative word-of-mouth	0.014	0.078	Y	0.006	0.243	Y	Partially
Attribution→Guilt→Dependence	0.005	0.056	Y	-0.051	0.152	N	Fully
Attribution→Regret→Negative word-of-mouth	0.036	0.162	Y	0.006	0.243	Y	Partially
Attribution→Regret→Dependence	0.044	0.149	Y	-0.051	0.152	N	Fully
CSR→Attribution→Guilt→Negative word-of-mouth	-0.035	-0.005	Y	-0.333	-0.09	Y	Chain
CSR→Attribution→Regret→Negative word-of-mouth	-0.073	-0.013	Y	-0.333	-0.09	Y	Chain
CSR→Attribution→Guilt→Dependence	-0.025	-0.002	Y	-0.467	-0.266	Y	Chain
CSR→Attribution→Regret→Dependence	-0.066	-0.017	Y	-0.467	-0.266	Y	Chain

5. Discussion And Conclusion

The current study explored whether perceptions of CSR reduces negative responses to service failures among consumers. The negative responses involve spreading negative word-of-mouth and reducing dependence on platforms. As we predicted, when consumers had higher perceptions of CSR of e-commerce, they attributed less responsibility to the platform for service failures. Nevertheless, when consumers attributed more responsibility to platforms for service failures, they felt less guilty but more regretful in this case. Results also supported the prediction that the chain mediating effect of attributions of responsibility, guilt, and regret on the relationship between perceptions of CSR and negative responses.

This study makes three contributions to the literature streams on CSR and consumer responses. Although many extant studies have examined and confirmed the impact CSR on consumer responses, the majority of studies focused on an offline environment (Bolton & Mattila, 2015; Joireman et al., 2015; Klein & Dawar, 2004; Lichtenstein et al., 2004), little attention has been given to such a relationship in the context of e-commerce. Since most e-commerce platforms do not sell goods directly to consumers, but rather provides services, research on consumer perceptions of and responses to service failures can enable us to enhance the social responsibility of the e-commerce industry from the consumer perspective. To date, this is the first study that goes from consumers' perceptions of CSR to exploring consumers' attributions, emotions and coping strategies to e-commerce service failures. In doing so, we linked the studies with the transactional theory of stress and coping and argued that consumers' perceptions of CSR of e-commerce can be viewed as an

effective concept for reducing consumers' negative responses and highlighted the role of attributions of responsibility. From this perspective, our findings provide further evidence supporting that CSR is a more effective buffer when it comes to the consumer's point of view (Joireman et al., 2015; Kim & Park, 2020; Lii et al., 2018).

Second, this study shed light on negative emotions and response chains of consumer reactions to CSR regarding on services failures, illustrating the complexities of service failures on e-commerce platforms. This study identifies e-commerce service failures as situations where suppliers on e-commerce platforms engage in misconduct, such as avoiding remedying self-caused failures, failing to fulfil after-sales obligations, and deliberately delaying refunds, and where problems with the monitoring mechanism of e-commerce platforms lead to consumer dissatisfaction with the process or outcome of the rights protection. Through in-depth interviews with consumers experiencing e-commerce service failures, we found that regret and guilt are the main emotions that are activated when experiencing e-commerce service failures. While anger is considered to be the most common emotional response in tradition service failures (Bougie et al., 2003; Joireman et al., 2015), the participants in this study did not suggest so, reflecting the specificity of service failures on e-commerce platforms. Most existing research considers the service failure experience as a negative outcome appraisal that would activate anger, indicating that anger would increase the likelihood of revengeful behaviour, such as spreading negative word-of-mouth (Bougie et al., 2003; Grégoire et al., 2010; Joireman et al., 2015; Kim & Park, 2020; Le & Ho, 2020). This study may offer an additional perspective taking into account the context of e-commerce. Consumers are less likely to experience anger than regret and guilt due to the low prices offered by e-commerce platforms, frequent trading transactions, and lower switching costs. In the case of perceived CSR, consumers' attributions of responsibility may lead to misbehaviours (Lazarus & Folkman, 1984; Smith & Lazarus, 1990). Since little attention has been given to the corresponding emotional experience that might be activated in e-commerce service failures, the current study therefore contributes to an expanding understanding of the cognitive-emotional linkages that explain consumers' reactions to CSR.

Third, our study broadens the scope of application of the transactional theory of stress and coping. To the best of our knowledge, the current study is the first research that applies the transactional theory of stress and coping to explain the impact of CSR on negative responses of consumers experiencing service failures. In contrast to other studies that typically explains the relationship from cognitive dissonance theory (Joireman et al., 2015), stakeholder theory (Stanaland et al., 2011), or communication theory (Du et al., 2010), the current study establishes attributions of responsibility and negative emotions as additional mechanisms that can explain the impact of perceptions of CSR. In the Chinese social-cultural context, CSR tends to influence consumers' perceptions of causes of service failures, which in turn influence their guilt and regret, as well as subsequent misbehaviours. For example, for those e-commerce enterprises that have a good reputation or actively practise their CSR, consumers tend to believe that platforms should be held less accountable for service failures and thus may be less likely to have negative responses.

The current study also offers several managerial implications. Given the findings of this study indicate that CSR of e-commerce can reduce negative consumer responses, i.e., spreading negative word-of-mouth and reducing dependence. Therefore, in line with the need to prevent the loss of existing and potential customers, managers should focus on the role of CSR activities and take a proactive mindset in implementing CSR strategies. Furthermore, they should also be aware that the impact of e-commerce enterprises on society is

much deeper and broader than that of traditional enterprises in the past and should not be limited to a common framework for CSR. Traditional CSR research which considers CSR as including bottom-line requirements and reasonable expectations, i.e., economic, legal, ethical, and philanthropic responsibilities (Bolton & Mattila, 2015; Grégoire & Fisher, 2006; Klein & Dawar, 2004; Lichtenstein et al., 2004; Mondal et al., 2021; Stanaland et al., 2011), but for most e-commerce enterprises, these responsibilities are not enough. On the one hand, e-commerce enterprises need to use their redundant resources, namely, big data system, information technology and marketing channels, to innovatively engage in social responsibility activities. They also need to help the public develop a sense of social responsibility to build a great social reputation. On the other hand, e-commerce enterprises also need to take into account the interests of a wider group of people, especially those whose interests have been compromised by the innovation and transformation of business models, such as self-employed and small-scale entrepreneurs.

Second, our results reveals that consumers who have weak perceptions of CSR are more likely to reduce dependence and spread negative word-of-mouth if consumers have strong attributions of responsibility to others. In light of this, we suggest that managers of e-commerce enterprises make consumers aware of the corporate commitment to social responsibility on their platforms. For example, information can be delivered to consumers about the platform's social responsibility to deal with unscrupulous suppliers and fake products.

Third, our results also suggest that regret has a greater impact on consumers than guilt in e-commerce services failures. Regret, as a cognitive emotion (Le & Ho, 2020), plays a more critical role in determining negative consumer responses (Li et al., 2021; Wu & Wang, 2017). Regret, in particular other-blame regret, when it occurs, can be seen as an almost unavoidable negative impact on e-commerce enterprises (Wu & Wang, 2017). Although this finding is preliminary and in need of replication, the role of CSR in buffering consumers from the negative impact of service failures may depend on boundary conditions such as consumer perceptions, values, or perceived motivations, which means that the finding may not be effective for all consumers. Therefore, managers should also establish effective consumer protection mechanisms to avoid and reduce the likelihood of negative feelings such as regret. Specifically, for improving e-commerce services, we suggest the following strategies. Firstly, the enterprises should provide precautions to reduce the likelihood of service failures. The enterprises should not only conduct initial audits (i.e., eligibility reviews), but on an annual basis. It is also important that they should develop suppliers' awareness of sustainability in business. Besides, there is a need to provide measures during service failures to avoid consumers' regret. Where it is known that there has been an evasion behaviour of a supplier, the enterprises should take prompt and proactive remedial action against it. The post-event measures should be developed to improve the services. Not only should enterprises punish unscrupulous suppliers for behaviours of intentional evasion, but they should also give consumers the right to evaluate and complain about the suppliers, staff, or services.

Several limitations should be kept in mind when interpreting the current results. The sample in this study is highly representative, but relatively homogenous. Thus, future research is encouraged to collect the data by including population from other groups to improve external validity. Secondly, this study only considers the absolute level of impacts. Although this is a common method in prior literature on the impacts of CSR on consumer responses, the relative level is in essence more influential on consumer responses. Upon comparison would promote positive responses to those with higher levels of CSR and aggravate negative responses to those with lower levels of CSR. Future research could further analyse the impact of relative levels

of CSR on e-commerce consumers. This study does not take into account whether there are differences in the impact of types of CSR on consumer emotions and behaviours neither, which could also be explored in the future. Finally, given that the variables such as consumer personality traits, price level, CSR competence, consumer support, consumer trust, and consumer perceived motivation, identity, and image of enterprises, may influence the relationship between CSR and consumer responses, future research could also focus on the influence of these variables and, in particular, to identify moderating and mediating variables that are relevant to the context of e-commerce.

Declarations

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Ethics approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the University of Science and Technology of China.

Informed consent: Written informed consent was obtained from the participants for their anonymized information to be published in this article.

Data availability: All data generated or analyzed during this study are included in this published article

Author contributions: The manuscript was written by Fan Zeng, Wentao Yu, and Yihan Wu. All the authors contributed to the conceptualization, methodology, formal analysis, original draft preparation, and review and editing. All authors have read and agreed to the published version of the manuscript.

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Figures

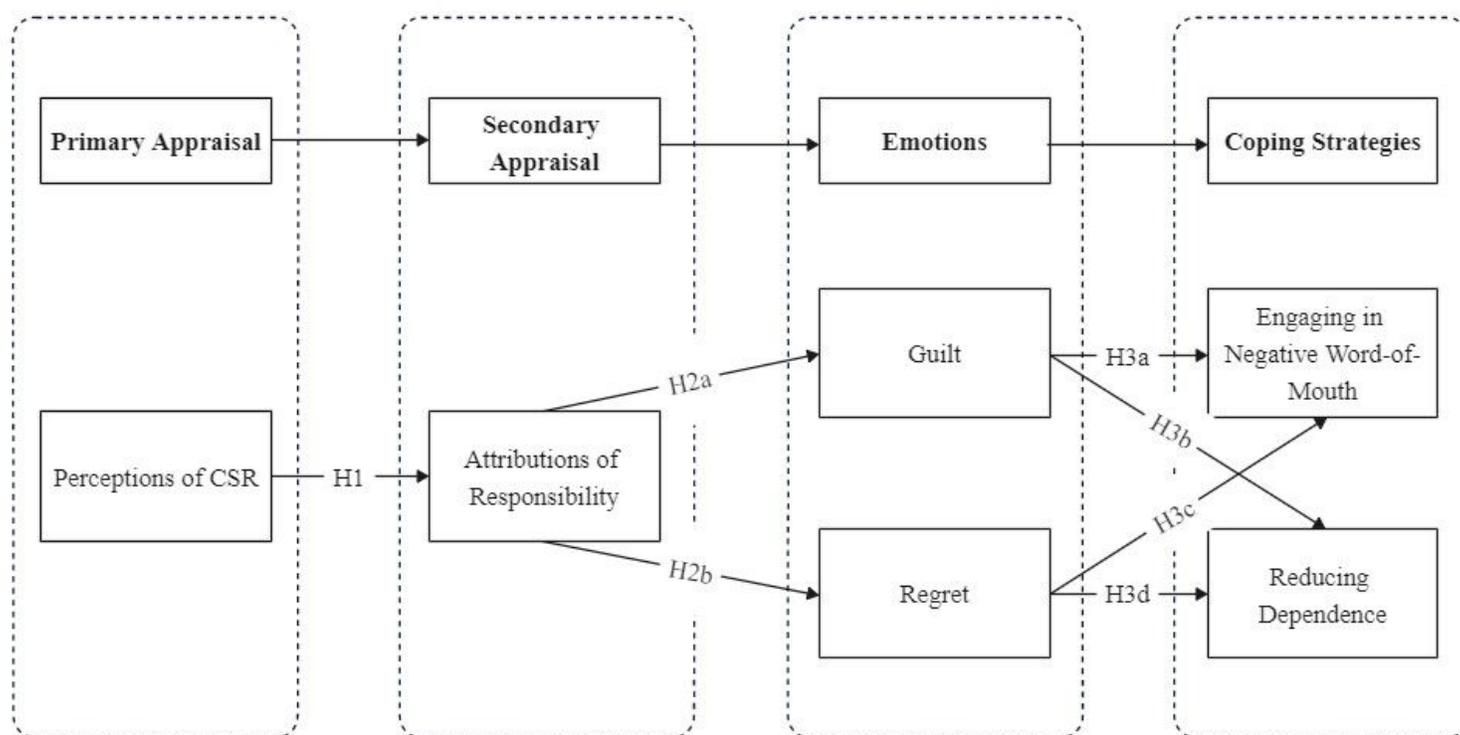


Figure 1

The conceptual model of this study.

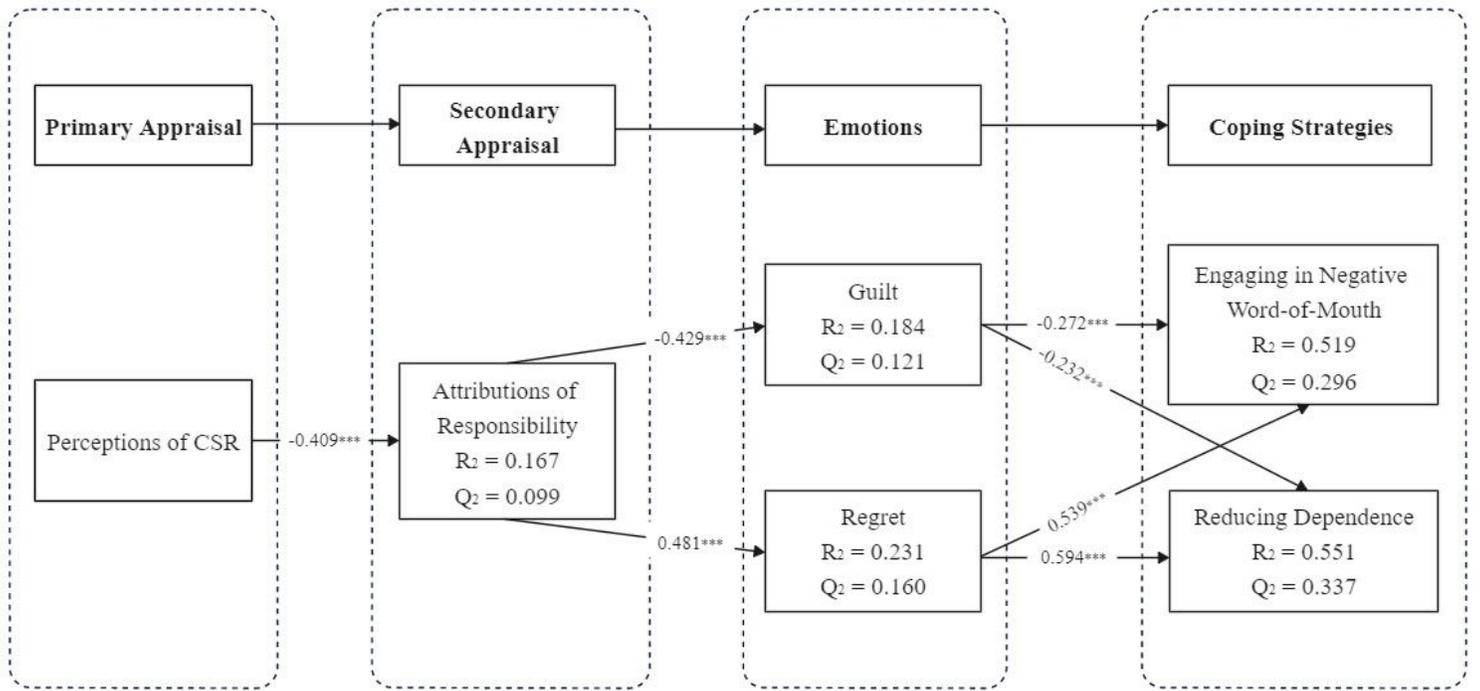


Figure 2

Assessment of hypothesized relationships.