



Research on the Influence of Values-Related Brand Crisis on Online Collective Behavior

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Abstract. The frequent occurrence of values-related brand crises has gradually attracted widespread public attention and triggered public online collection behavior, placing the crisis brand and even the company in the limelight and bringing negative impact on corporate reputation and brand image. 107 participants participated in this study through an online questionnaire. The results of the study show that values-related brand crises lead to public online collection behavior, and that group anger and group effectiveness play a fully mediating role. This study contributes to the study of online collection behavior triggered by values-related brand crises.

Keywords: Values-related brand crisis · online collective behavior · group anger · group efficacy

1 Introduction

In recent years, along with the rapid development of instant and diversified new media, values-related brand crises have occurred frequently. From Gigabyte's insulting incident, Coconut Group's vulgar marketing incident, to Dior's plagiarism incident, values-related brand crises have occurred in various industries, with different types of crisis events, gradually attracting public attention, and triggering online collective behavior.

Scholars have classified brand crises into functional and values-related crises based on the intrinsic causes of corporate crises (Pulling et al. 2006; Sabrina M et al., 2018; Han Zao et al., 2022). Previous research on brand crises have mostly focused on the impact caused by product defects or safety hazards (Xiaoyu Wang & Zhiliang Wang, 2014; Ji Dan & Guo Zheng, 2018), i.e., they are more concerned with the functional benefit level. However, the continuous occurrence of values-related brand crisis has stimulated the public's attention and digging for such events in social media, prompting a large collection on the Internet, triggering online public opinion, which gradually has a negative impact on corporate performance (Zhou Guang et al., 2021), brand image, brand reputation (Sabrina M et al., 2018), and even brand symbols and values transmission (Pulling et al, 2006; Li Yang et al., 2022).

In the era of digital communication, the public can freely express and communicate on platforms such as Weibo, making the public more and more prominent and influential.

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In today's digital communication era, the public can express and spread freely on platforms such as Weibo, which makes the public's status and influence more and more important. In addition, according to a review of values-related brand crisis cases in the past three years, the influence index of crisis events on Weibo, is generally high. It can be seen that based on the Weibo, it is of great theoretical and practical significance to study the influence of values-related brand crisis on online public collective behavior.

2 Theoretical Framework

2.1 Values-Related Brand Crisis and Online Public Behavior

The values-related brand crisis is distinguished from the functional brand crisis. From the brand perspective, values-related brand crises are not related to product attributes, traits, and functions, but are closely related to the social ethical and moral issues represented or values conveyed by the brand (Dutta & Pulling, 2011; Sabrina M et al., 2018). According to Tao, H. and Wei, H. (2016), when a values-related brand crisis occurs, the idea, image, and symbolism that the brand intends to convey is questioned by consumers and the public, which then triggers the public to gather and participate in discussions and retweets.

Yue and Xue (2011) defined online public behavior as "the group effort of a certain number of relatively unorganized Internet users in response to a common influence or stimulus in the online environment or influenced by online communication". It includes retweeting, commenting, liking, following, and so on. It even includes solidarity, voting, protest, etc. Currently, Weibo has become an important platform for online collection behavior of crisis events (Yang, Qingguo et al., 2016), and according to the collation of values-related brand crisis cases in the past three years, the influence index of crisis events on Weibo is generally high. Therefore, once a values-related brand crisis event is revealed, the public, in response to this event, coincidentally gathers on Weibo, which in turn triggers online public behavior. Thus, the following hypothesis is proposed:

H1: Values-related brand crisis has positive effect on online public behavior.

2.2 Values-Related Brand Crisis and Group Anger and Group Efficacy

According to intergroup emotion theory, group members will divide the group into ingroup and outgroup, with ingroup being the group they belong to and identify with, and outgroup being the group to which the individual does not belong (Liu, Feng, and Zobin, 2010). Once an unfavorable event (e.g., a crisis) occurs for the group, in-group members will attribute responsibility to the out-group. Values-related brand crises occur with a problematic brand value orientation that contradicts public group values or moral evaluations, so ingroup members attribute responsibility for the crisis to the brand owner, an outgroup, resulting in group anger (Van Zomeren, 2012). Based on these points, the following hypothesis is proposed.

H2a: Values-related brand crisis positively affects group anger.

Resource mobilization theory suggests that after a crisis occurs, in addition to attributing responsibility to the ingroup, the ability of group members to respond effectively to

the crisis is assessed (Van Zomeren et al, 2008; Van Zomeren et al, 2012), which is also referred to as group efficacy. When a values-related brand crisis occurs and the ingroup is in an unfavorable situation, group members work to change the situation the ingroup is in and stimulate group efficacy (Yinrong et al., 2017). In the current online environment, the public can gather quickly, public groups play an increasingly important role in cyberspace, and the power they gather is stronger, and they are especially eager to participate in various hot social events by acting as moral judges (Shiomi et al., 2022), which makes public group efficacy will be stronger. Therefore, the following hypothesis is proposed. On the basis of this evidence, the hypothesis for the present study is as follows:

H2b: Values-related brand crisis positively affects group efficacy.

2.3 Group Anger, Group Efficacy and Online Public Behavior

Intergroup emotion theory suggests that different emotions can drive different behavioral tendencies. Aggressive emotions such as anger and disgust cause people to actively generate action (Morales et al, 2012); avoidant emotions such as sadness and anxiety cause people to divert their attention or avoid thinking about the current issue (Verbeke & Bagozzi, 2000). Van Zomeren et al. (2012) argue that group anger promotes group members' coping and motivate them to act in clusters towards external groups. Similarly, Qing et al. (2016) demonstrated through an empirical study that group anger is more likely to motivate non-realistic collection behaviors to occur. Thus, the following hypothesis is proposed:

H3a: Group anger has positive effect online public behavior.

According to resource mobilization theory, the key to the occurrence of collection behavior is the resources that the group can mobilize. When group members have high group efficacy, the more likely they believe they have the ability to change the group's status and situation, the more likely they are to engage in collection behavior (Van Zomeren et al, 2008); meanwhile, group members are more likely to show willingness to engage in collection behavior when they expect the behavior to achieve better outcomes (Yin, Rong & Fei-Fei Zhang, 2015; Van Zomeren et al, 2012), so group efficacy can effectively predict collection behavior. Therefore, the following hypothesis is proposed.

H3b: Group efficacy has positive effect online public behavior.

2.4 Group Anger and Group Efficacy as Mediator

Van Zomeren et al. (2004; 2008) proved through empirical research that group anger and group efficacy play a mediating role in group behavior. Combining the intergroup emotion theory and resource mobilization theory with the above-mentioned literature review, when a values-related brand crisis occurs, the attribution of responsibility to the external group make group members feel angry, which leads to online public behavior; at the same time, group members will also evaluate group efficacy, and the stronger the group efficacy, the greater the possibility of participating in online public behavior. Wenjun Gao and Hao Chen (2014) proved through an empirical study that identification-evaluation-emotion-behavior is the psychological process of online public behavior generation. Based on the above, the following hypotheses are proposed.

H4a: Group anger mediate the effect of value-related brand crisis on online public behavior.

H4b: Group efficacy mediate the effect of value-related brand crisis and online public behavior.

3 Methodology

3.1 Design

Data were collected via an online survey, and based on a review of values-related branding crisis cases, one of the more common types of crisis was selected to design crisis situations: vulgar marketing. The stimulus materials were presented to the participants in the form of a Weibo blog post, in which food brand H was reported by the media as having a vulgar style of live broadcast and was questioned by netizens. The participants were asked to read and answer the questions based on the items asked. Before the formal distribution of the questionnaire, 20 master's degree students were invited to conduct a pretest to ensure that the subjects could effectively read and understand the virtual materials and questions, and to ensure the validity of the questionnaire.

3.2 Sample

By distributing questionnaires on Weibo, WeChat and Questionnaire Star platforms, 115 questionnaires were finally collected, 8 invalid questionnaires were excluded, and 107 valid questionnaires were finally obtained, with an effective rate of 93.04%. 73 of the 107 respondents were female (68.2%), 99.1% of the them were aged 18–40, and most of them were students, in line with the characteristics of the largest group of Weibo users.¹

3.3 Measures

Each measured variable of the questionnaire was developed by drawing on well-established scales, which all items were measured by a seven-point Likert scale anchored where 1 = strongly disagree and 7 = strongly agree. The variable “values-related brand crisis” was measured with 4 items ($\alpha = .896$, $KMO = .792$) by Hardell (2015), the online public behavior scale with 8 items ($\alpha = .937$, $KMO = .867$) was retrieved from Wang Lin et al. (2013), The group anger scale was measured with 4 items ($\alpha = .923$, $KMO = .796$) by Kai Li et al. (2018), Van Zomeren (2008), Group efficacy was measured with 4 items ($\alpha = .792$, $KMO = .652$) by Qingping (2016), Van Zomeren (2004;2008).

¹ Chinese Academy of Social Sciences, 2013. China New Media Development Report (Volume 2013): <http://tech.cnr.cn/zt/nm2013/>

4 Results

In this study, regression analysis was used to process the data. Before conducting the regression analysis, the correlation analysis of the relationships of the variables was conducted, and the results of the analysis are shown in the Table 1. The results of this Pearson correlation coefficient matrix show that the four variables of values-related brand crisis, group anger, group efficacy, and online collection behavior show significant correlations at 99% confidence intervals, indicating that the model is scientifically established and suitable for regression analysis of each variable.

Table 2 shows the detailed results of the regression analysis of each variable. It can be seen that values-related brand crisis can significantly promote public participation in online collection behavior ($\beta = 0.399, p < 0.01$). Thus, hypothesis H1 is supported. Meanwhile, values-related brand crisis can significantly and positively influence group anger ($\beta = 0.645, p < 0.01$) and group efficacy ($\beta = 0.394, p < 0.01$). Thus, hypotheses H2a, H2b are supported. Similarly, group anger ($\beta = 0.579, p < 0.01$) and group efficacy ($\beta = 0.699, p < 0.01$) can also positively affect online collection behavior. Thus, hypotheses H3a and H3b are supported.

In order to verify the mediating effect of group anger and group efficacy, this study adopted Kenny & Baron’s (1986) method and the results of the mediating effect analysis are shown in the Table 3. As can be seen from the table, before the inclusion of group anger as a mediating variable, the independent variable values-related brand crisis has a significant effect on the dependent variable online collection behavior; after the inclusion of the mediating variable, the significance of the effect of the independent variable on

Table 1. Correlation Matrix and Discriminant Assessment

	Mean	SD	VBC	GA	GE	OPB
Value-related Brand Crisis (VBC)	5.042	1.286	1			
Group Anger (GA)	4.608	1.353	.613**	1		
Group Efficacy (GE)	4.798	1.209	.418**	.384**	1	
Online Public Behavior (OPB)	4.261	1.406	.365**	.557**	.601**	1

Table 2. Regression Analysis

	R2	Unstandardized Beta	standardized Beta	t	p
VBC (X) → OPB (Y)	.133	.399	.365	4.015	.000
VBC (X) → GA (M1)	.376	.645	.613	7.946	.000
VBC (X) → GE (M2)	.175	.394	.418	4.721	.000
GA (M1) → OPB (Y)	.310	.579	.557	6.869	.000
GE (M2) → OPB (Y)	.362	.699	.601	7.713	.000

N = 107

Table 3. Mediation models.

Model	Variables	Unstandardized Beta	standardized Beta	t	p	VIF
1	VBC	.399	.365	4.015	.000	1.000
2	VBC	.041	.038	.368	.714	1.601
	GA	.554	.534	5.180	.000	1.601
3	VBC	.150	.137	1.610	.110	1.212
	GE	.632	.544	6.385	.000	1.212

the dependent variable becomes 0.714 and the effect becomes insignificant, while the mediating variable has a significant effect on the dependent variable, so group anger plays a fully mediating role. Hypothesis H4a is supported; similarly, hypothesis H4b is also supported.

5 Discussion and Conclusion

As mentioned, Weibo and other new online media have the advantages of instant interaction, convenience and rapidity of communication and influence, and gradually become a platform for online collection behavior of crisis events (Yang, Qingguo et al., 2016). However, there are relatively few studies on online collection behavior due to more studies on collection behavior, and they are more focused on functional brand crises (Qing et al., 2016). Therefore, this study is dedicated to exploring the impact of values-related brand crises on public online collection behavior.

From the research results, the impact of values-related brand crisis on public online collection behavior has a positive contributing effect. The emergence of online collection behavior generally requires the stimulation of certain triggering factors (Tang & Du Fei, 2014), which can attract public attention and thus gather for discussion. Once a values-related brand crisis occurs, it triggers discomfort and resistance at the public's psychological and emotional levels because it conflicts with the public's inherent values and moral stance (Harmeling et al, 2015), which in turn promotes the public's participation in collection behavior. Thus, values-related brand crises positively influence public online collection behavior.

Additionally, values-related brand crises positively affect group anger and group efficacy. According to intergroup emotion theory, when a values-related brand crisis occurs, the public attributes responsibility for the crisis, triggering public anger and disgust (Li-Yang et al., 2022). Thus, values-related brand crises positively affect public group anger. Meanwhile, resource mobilization theory states that values-related brand crises occur and adversely affect the public, making the public want to change the situation the group is in, which in turn triggers the mobilization effect of the situation on group efficacy (Yinrong et al., 2017).

Group anger and group efficacy positively influence public online collection behavior. Combined with intergroup emotion theory and resource mobilization theory, group anger, as an offensive emotion, motivates the public to act positively and makes public

collection behavior occur; meanwhile, in cyberspace, the public can gather quickly, which contributes to the public's perception of group efficacy and motivates the public to participate in online collection behavior (Yang, Q. et al., 2016). Van Zomeren et al. (2004; 2008; Zomeren et al., 2012) also used empirical studies to demonstrate that group anger and group efficacy are two independent paths for the generation of collection behavior.

According to the results of the study, group anger and group efficacy play a fully mediating role. Based on resource mobilization theory and intergroup emotion theory, when a values-related brand crisis occurs, the public will attribute the blame to the outgroup, which triggers public anger toward the outgroup and thus promotes online collection behavior; meanwhile, the public will evaluate the resources possessed by the ingroup, and when the ingroup has enough resources, the public's sense of group efficacy increases, and they are committed to changing the status quo of the ingroup, which triggers online collection behavior. Thus, group anger and group efficacy play a mediating role.

The findings of this study make an important contribution to the understanding of public online collection behavior triggered by values-related brand crises. Most previous studies have used a function-based functional brand crisis as the research context (Qing et al., 2016) to explore the factors that influence online collection behavior, such as relative deprivation (Van Zomeren, 2004; Song et al., 2018), and social identity (Van Zomeren, 2008; Yin, Rong & Zhang, Fei-Fei, 2015). This paper focuses on values-related brand crises and takes into account the multi-faceted nature of the public. The research is conducted from the perspectives of group anger and group effectiveness, which broadens the understanding of public online collection behavior triggered by values-related brand crises and helps brands to properly handle public online collection behavior triggered by values-related brand crises.

However, there are two limitations to the current study and avenues for future research. First, the sample size is modest, our effective sample size is 107, and for the study of online collection behavior, the sample size needs to be further expanded; second, the participants are mostly highly educated students, which could cover a wider group in the future and may yield richer insights.

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