

THE IMPACT OF COMPETITIVE ENTERPRISES RESPONSE STATEMENTS ON SPILLOVER EFFECT IN THE CONTEXT OF CORPORATE VALUE RELATED NEGATIVE PUBLICITY

Shengmin Ma¹ and GuoQing Guo²

^{1,2}Chinese Graduate School, Panyapiwat Institute of Management

Received: September 4, 2019 / Revised: December 24, 2019 / Accepted: January 8, 2020

Abstract

In recent years, the frequent occurrence of corporate value related to negative publicity has not merely brought damage to enterprise crises, but the results in the negative spillover has damaged competitive enterprises. Based on the “accessibility-diagnosability” frame, this paper explores the impact of competitive enterprises’ response statements on spillover effects in the context of corporate value related to negative publicity. The study employs Chinese consumer samples and adopts experimental methods to test hypotheses. The research conclusions reveal that 1) The negative events of product quality triggered by corporate ethical and moral performance exert a negative impact on competitive enterprises. In comparison with the negative events of corporate morality, the negative events of product quality triggered by morality exert a greater negative impact on competitive enterprises. 2) After the negative events of quality due to morality occurred in crisis enterprises, the best response for competitive enterprises is to make the clarification response statement; while when moral negative events occur in crisis enterprises, the best response for competitive enterprises is to release a denial statement. The research conclusion contributes to deepening the theoretical understanding and practical guidance of crisis coping strategies of competitive enterprises from the spillover of value-oriented negative events of crisis enterprises to competitive enterprises.

Keywords: Brand Negative Publicity, Competitive Enterprises, Spillover Effect, Response Statement

Introduction

Negative events of corporate values refer to social or ethical events that affect the brand's capability to transmit symbolic benefits (Pullig, Netemeyer & Biswas, 2006). From the points of view of responsibility attribution of negative events and corporate motivation. Chinese scholars Zhuang & Yu (2011), corporate value related publicity can be classified into two categories: one is the corporate immorality negative publicity (such as the incident of Apple's mobile phone foundry exploiting labor force to decrease costs, and the false marketing incident of the difficulty in awarding Pepsi's award-winning bottle cap); the other is morality-related quality and performance failure negative publicity (for instance, KFC sold expired meat and China Sanlu Group added melamine to baby milk powder).

In recent years, both international brands and common brands have experienced corporate value related negative publicity, which have severely damaged the sales performance, stock price, market share and brand image of crisis enterprises; in the meanwhile, competitive enterprises associated with crisis enterprises also suffer from spillover effects (Roehm & Tybout, 2006; Dahlen & Lange, 2006; Jun, Ping & Hui-Chao, 2015; Zhuang & Yu, 2011). Spillover effect refers to the phenomenon that information affects beliefs through indirect means (Ahluwalia, Burnkrant & Unnava, 2000). For instance, in the KFC's expired meat incident in China in 2012, consumers indirectly inferred from the

incident of KFC (crisis enterprise) that McDonald's (competitive enterprise) is also affected by the same negative events, thereby negatively affecting consumers' evaluation of KFC's competitive enterprise McDonald's.

When facing the negative spillover of brand crisis, competitive enterprises often wish to eliminate the negative impact brought by the crisis enterprises and consolidate the reputation of brand equity through response statements. (Xue et al., 2016) Up till now, all types of competitive enterprises hold different attitudes towards how to availably deal with the crisis spillover. Some have flatly denied it, some have attempted to clarify it, and some have remained silent. As far as the coping strategies of competitive enterprises with such great differences in reality, we not merely reflect on which kind of response statement of competitive enterprises can protect brand equity most availably has not merely become a practical puzzle to be solved urgently by enterprises, but requires in-depth research from theoretical breakthrough and construction by academia.

Research Objectives

With the spillover effect of negative events of corporate values on competitive enterprises as the research background and from the point of view of attribution and corporate motivation, the current research attempts to classify value-oriented negative events into two types: moral type and product quality type triggered by morality. The purposes of the current research are as

below: 1) to explore the different impacts of two different types of negative events of corporate values of crisis enterprises on spillover effects of competitive enterprises and 2) facing the spillover risks of different types of value-oriented negative events of crisis enterprises, to explore how should competitive enterprises choose the optimal crisis response statement with a view to eliminate the impact of negative spillover and maintain the reputation of brand assets of competitive enterprises.

Literature Review

1. Spillover effect of brand negative publicity and brand equity

“Brand negative publicity” refers to the destructive and widespread events concerning products, services, enterprises as a whole or employees in the course of business operation (Siomkos & Kurzbard, 1994). It has two vital characteristics: first, negative publicity is spread through media and other forms, with a very wide spread; second, negative publicity will exert a great negative impact on consumers. (Wang & Zhao, 2009).

“Spillover effect” refers to the phenomenon that a certain information or behavior of a brand will affect other brands that have a certain relationship with the brand but do not have such information or behavior themselves (Ahluwalia, Burnkrant & Unnava, 2000). With reference to the literature, this paper finds that the research on spillover of brand negative publicity principally emphasizes four levels: Spillover between different

attributes of the same brand (Ahluwalia, Unnava & Burnkrant, 2001), Spillover effect within brand portfolio (John, Loken & Joiner, 1998), Spillover effect between competitors or brand alliances (Roehm & Tybout, 2006), Spillover effect at the whole industry level (Roehm & Tybout, 2006). Based on these empirical studies, it is confirmed that the spillover effects of negative publicity of trouble-causing brands are widespread.

In the research on brand crisis spillover, a large number of researches demonstrate that brand equity is the most vital dependent variable affected by brand crisis spillover and crisis response statements (Dawar & Pillutla, 2000; Fang et al., 2010). Keller (1993) defined brand equity as a significant but fragile intangible asset based on consumer beliefs and brand knowledge from the perspective of consumer psychology. Brand equity is a significant carrier to deposit corporate reputation and accumulate corporate assets. Creating brand equity requires years of efforts, but destroying it may only require a brand crisis. Based on the above understanding, in the passing years, there have been frequent negative publicity associated with corporate immorality. Different types of negative publicity have caused different degrees of spillover damage to the brand equity reputation of competitive enterprises. As innocent competitive enterprises, it is an urgent problem faced by many enterprises in reality on how to availably address this issue and prevent or decrease the spillover effect damage.

2. Classification of brand negative publicity

Different types of negative information affect consumers' reactions in different ways (Brown & Dacin, 1997). To availably manage the negative spillover of the brand crisis, Pullig, Netemeyer & Biswas (2006) divided the brand negative publicity into two categories: product quality related negative publicity and corporate value related negative publicity. Product quality related negative publicity refers to the event of unqualified products brought by technical and operational errors of enterprises; corporate value related negative publicity refers to negative publicity associated with corporate ethical and moral performance or social responsibility. In the light of attribution theory, Coombs (2007) classified negative publicity into three categories: victimized, negligent and intentional.

Chinese scholars Zhuang & Yu (2011, 2014) further divided corporate value related negative publicity into two groups from the perspectives of attribution and corporate motivation: 1) corporate immorality negative publicity refers to events that have nothing to do with product quality but are brought by deliberate violation of social responsibility or moral principles (for instance, the exploitation of labor in Apple's foundry, the employment of child labor in Nike's factory, etc.). 2) Morality-related quality and performance failure negative publicity refers to the product performance accident brought by enterprises' illegal operations in violation of social morality in order to maximize their profits (for instance,

the incident of adding the chemical raw material "melamine" to the baby milk powder produced by China Sanlu Group).

Currently, scholars' research on the negative spillover effects of crises of competitive enterprises principally emphasizes the product quality related negative publicity and pays less attention to the corporate value related negative publicity (Lei, Dawar & Lemmink, 2008; Janakiraman, Sismeiro & Dutta, 2009; Zhao, Zhao & Helsen, 2011; Gao & Lu, 2018). Hence, the current study will emphatically discuss the negative spillover effects of two types of negative publicity on competitive enterprises, namely, corporate immorality and morality-related quality and performance failure, as well as their differences.

3. Response statement on crises of competitive enterprises

In crisis communication, the choice of crisis response statement refers to an enterprise's decision to "say something" to the society through the media after encountering a crisis, in a bid to decrease or avoid the hazards and losses brought by the crisis. Coombs & Holladay (2009) indicated that the crisis response statement can protect and repair the brand equity image of the enterprise in the minds of consumers. On this basis, Roehm & Tybout (2006) divided the spillover response statements of competitive firms into silence, denial and clarification. Viewing from the attitude of protecting the equity image of competitive enterprises, the three strategies from silence to denial to clarification can be seen as a continuum

from negative to positive, and the attitude of competitive enterprises is becoming increasingly positive. Since the silence strategy does not positively convey that the competitive enterprise is safe and reliable, nor does it deny that its products may have similar defects, the effect of the strategy on the attitude of competitive enterprises to repair consumer brand equity is limited. Hence, the current study only considers two types of response statements, denial and clarification. Therein: 1) Crisis statement of denial means that competitive enterprises adopt a firm denial attitude and declare that there is no problem with the brand involved in the crisis. 2) Crisis statement of clarification means that competitive enterprises issue detailed information to distinguish themselves from crisis brands and limit the crisis to a certain range. Hence, the statement emphasizes that there exist great differences between themselves and the brands involved in the crisis with respect to product or enterprise attributes.

Research Hypothesis

1. Spillover effect of different types of corporate value related negative publicity on competitors' brand equity

Feldman & Lynch (1988), "accessibility-diagnostics" frame is the theoretical framework to detect whether spillover effects occur. The frame specifies that the spillover effect of brand crisis must meet two conditions: first, the brand crisis is "accessible" and second, the brand crisis is "diagnosable". As far as

accessibility is concerned, the competitive relationship between crisis enterprises and competitors serves as a clue and facilitates the brand association of consumers to the brands of both sides (for instance, when seeing KFC, one will think of its rival McDonald); as for "diagnosability", as the crisis brands are similar to the products category and product attributes of competitive enterprises, consumers speculate that the products of the competitive enterprises and the products of the crisis enterprises have the same problems, which results in the spillover effect of the negative publicity of the crisis enterprises on the competitive enterprises.

Brown & Dacin (1997) indicated that different negative publicity affect consumers' reactions in different ways, because consumers put a higher premium on the function and quality attributes of products when purchasing and using products. Many scholars such as Ahluwalia, Burnkrant & Unnava (2000) indicated that the lack of information on product quality is more influential on consumers than the lack of corporate immorality. Votola & Unnava (2006) also verified this hypothesis in the research results of spillover effects of negative publicity on brand alliances. If the alliance partner is an enterprise, the negative information of lack of product quality will cause consumers to be less positive towards the cooperative enterprise than the corporate immorality negative publicity.

Based on the cognitive "neuroeconomic-model" of Gutnik et al. (2006), perceptual negativity is deemed to be the key factor

affecting the change of consumer attitudes, and negative information sources can be classified into internal attributes and external attributes. Internal attributes refer to the specific natural attributes of products, including product quality. Hence, morality-related quality and performance failure negative publicity results in perception negativity of internal attributes; external attributes include attributes of management, employees, corporate culture and others. Corporate immorality negative publicity causes perception negativity of external attributes. Brown & Dacin (1997) indicated that in negative information, the negative impact brought by internal attributes is more negative and stronger than that brought by external attributes. Based on the above analysis, the following hypotheses are put forward:

H_{1A} : immorality negative publicity of crisis enterprises has negative effects on brand equity of competitive enterprises.

H_{1B} : morality-related quality and performance failure negative publicity of crisis enterprises has negative effects on brand equity of competitive enterprises.

H_2 : Compared with corporate immorality negative publicity, morality-related quality and performance failure negative publicity has a greater negative impact on brand equity of competitive enterprises.

2. Repair of spillover effect by matching the type of crisis response statement of competitive enterprises with the type of brand negative publicity

After a negative publicity occurs in a

crisis enterprise, to prevent the brand crisis from harming themselves, enterprises with competitive relationships will first judge the type of negative publicity, and then adopt different response statements to avoid the negative impact of spillover effect and protect their brand equity reputation.

First of all, in the spillover effect of morality-related quality and performance failure negative publicity, consumers will evaluate the products of crisis enterprises as “bad” due to the lack of quality and performance of the products involved; Due to the homogeneity and similarity between competitive enterprises and crisis brand enterprises as well as their products, consumers can easily make “bad” brand evaluations of competitive enterprises. Based on the signaling theory of information economics, as there is information asymmetry between competitive enterprises and consumers, competitive enterprises grasp real information on their own product quality, while consumers are not clear. At this time, if competitive enterprises adopt a clear response statement and quickly release real information about products, they can decrease consumers’ worries and doubts in a prompt manner and alleviate and protect the damage of brand equity. If a competitor adopts a response statement of “denial”, due to the lack of information, it cannot well eliminate consumers’ preconceptions that competitors’ products are harmful.

Next, the corporate immorality negative publicity is principally brought by the violation

of social norms or moral standards, which mainly threatens consumers evaluation of the consistency of brand and social norms. Moreover, such incidents are spontaneously formed by crisis enterprises under certain circumstances, so their negative spillovers are less than those of morality-related quality and performance failure negative publicity. Hence, to decrease the negative spillover damage of the crisis, competitive enterprises should adopt denial statements at this time to quickly lower consumers' negative evaluation of competitive enterprises based on negative information; If a competitive enterprise chooses a response statement of clarification and gives too many explanations, it will mislead consumers into thinking that the

competitive enterprise is suspected of shattered glass, thus prompting consumers to be more certain of their negative inferences about the competitive enterprise.

Based on the above analysis, the following research hypotheses are put forward:

H_{3A} : the clarification statement of a competitive enterprise to repair the spillover of morality-related product quality crisis has a negative impact on the brand equity of competitive enterprises.

H_{3B} : The denial statement of the competitive enterprise to repair the spillover of the moral crisis of the enterprise has a negative impact on the brand equity of competitive enterprises.

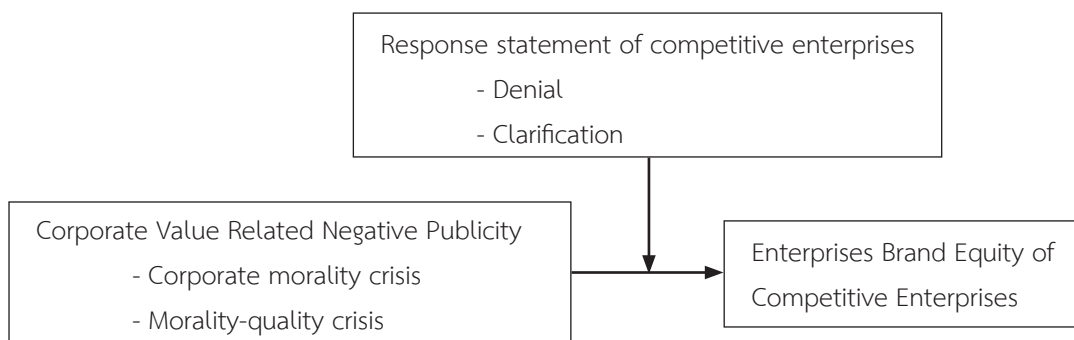


Figure 1 Research Framework

Methodology

1. Experimental methods

Referring to the research method commonly used in the field of brand crisis: field experiment, this paper makes an empirical study. (Ahluwalia, Unnava & Burnkrant, 2001; Roehm & Tybout, 2006; Votola & Unnava, 2006; Lei, Dawar & Lemmink, 2008; Fang et al., 2011; Xue et al., 2016; Wu & Tang, 2017)

1) Definition of “field experiment method”:

the researcher controls independent variables by simulating real events and situations based on the research purpose, and then observes the natural effect of this simulated situation on the psychology or behaviors of the subjects, so as to deduce the influence on dependent variables (Xu & Zhang, 2008; Wang, 2008)

2) The steps of field experiment are: establish the research model and research hypotheses; design real or virtual test scenes; control

variables; use statistical analysis to analyze the data to verify the research hypotheses. (Xu & Zhang, 2008).

2. Experimental design

This experiment adopts between-group design of 2 (value related crisis of crisis enterprises: corporate immorality, morality-related quality and performance failure) x2 (response statement of competitive enterprises:

denial, clarification). The objects are classified into 4 groups to compare the changes of brand equity attitude before and after exposure to negative publicity information and information of response statement. Hence, the controlled pre-control and post-control questionnaire is used to verify the hypotheses in the current study (see Table 1).

Table 1 Experimental Research Design

Experimental group	Experimental treatment	Pre-test	Experimental treatment	Post-test
G1	Corporate immorality crisis	Attitude towards brand equity of competitive enterprises	Clarification statement of competitive enterprises	Attitude towards brand equity of competitive enterprises
G2	Corporate immorality crisis	Attitude towards brand equity of competitive enterprises	Denial statement of competitive enterprises	Attitude towards brand equity of competitive enterprises
G3	Morality-related quality crisis	Attitude towards brand equity of competitive enterprises	Clarification statement of competitive enterprises	Attitude towards brand equity of competitive enterprises
G4	Morality-related quality crisis	Attitude towards brand equity of competitive enterprises	Denial statement of competitive enterprises	Attitude towards brand equity of competitive enterprises

3. Experimental samples

Coombs (1999) indicated that there is no essential difference between the sample of university students and the sample of non-university students in experimental research of brand crisis. Due to the high homogeneity of student samples, which facilitates to control the interference of individual differences on experimental results, it has been extensively used by scholars in the research on consumer behaviors and spillover effects of corporate crisis. (Ahluwalia, Unnava & Burnkrant, 2001; Roehm & Tybout, 2006; Votola & Unnava, 2006; Lei, Dawar & Lemmink, 2008; Fang et al., 2011;

Xue et al., 2016; Wu & Tang, 2017).

Drawing on previous studies and tests, this experiment takes university students as samples. A total of 162 college students from a university in Southern China participated in the study. 24 samples of invalid questionnaires were excluded and 138 valid samples were obtained. The average age of valid samples was 20.5 years old, of which 78 were male, accounting for 56.8%.

In the field experiment study, only when each experimental group reaches 20-30 samples can significant experimental results be achieved (Xu & Zhang, 2008). The number

of samples in the four situations of this experiment exceeds 20, and the sample size in the current study meets the research needs of the experiment.

4. Design of experimental materials

4.1 Selection of enterprise category: fast food industry is selected as the product category. First of all, design two virtual brands: crisis enterprise is Brand A; competitive enterprises are Brand B. Then, search six fast food companies' introductions on the Internet and combine the texts, delete the information associated with enterprise reputation and the real names of the enterprises that could be clearly judged, form two virtual brand introductions and ensure that the reputation and similarity of the two brands are of medium level as far as possible.

4.2 Design of negative publicity materials for crisis enterprises: taking the real KFC's "fake quick sell out of coupons" incident and KFC's "instant chicken" incident as prototypes and considering news reports from many networks, revise and form stimulus materials of two negative publicity, and unify the crisis brand into Brand A in the stimulus materials. Regard the incident of "fake quick sell out of coupons" as a corporate immorality negative publicity and the "instant chicken" incident as a morality-related quality and performance failure negative publicity. (KFC's "fake quick sell out of coupons" incident: KFC China launched "Super Tuesday" three rounds of seckill activities in which 64 yuan's take-out family bucket only required 32 yuan. Consumers took an active part in the activity.

When they were exchanging coupons that they had worked so hard on the Internet, KFC unilaterally announce that they would not exchange them; KFC's "instant chicken" incident: KFC China used chickens that had not undergone inspection and quarantine and were fed with 18 antiviral and hormone drugs for 45 days and could grow to 6 or 7 kg as raw materials for food).

4.3 Design of competitive enterprises' response statement materials: extract the original text of the statement reports from several typical real cases, and carry out integration and adjustment so as to connect with the types of fast food enterprises. Statement of "clarification" principally points out that competitive enterprises clarify the impact of negative publicity by releasing detailed information on product details, operation processes and other aspects different from crisis enterprises; Statement of "denial" emphasizes that negative publicity is spontaneously formed by crisis enterprises in a certain environment. Competitive enterprises and crisis enterprises are completely different in crisis attributes and enterprise concepts, so such publicity will not occur.

5. Manipulation and measurement of variables

5.1 Control test of independent variables: test objects' category judgment of types of negative publicity.

5.2 Manipulation test of adjustment variables: test objects' category judgment of competitive enterprises' crisis response statements.

5.3 Measurement of dependent

variables: dependent variable is the change value of brand equity of competitive enterprises (post-test value of brand equity pre-test value of brand equity), i.e. the difference between the brand equity evaluation value after the release of the crisis response statement of competitive enterprises and the brand equity evaluation value after the occurrence of negative publicity of crisis enterprises is taken as the dependent variable value of the experiment. The questionnaire is prepared with 10 items based on the conceptualization of brand equity evaluation by Darwar & Pillutla (2000), combined with the characteristics of Chinese consumer samples and referring to the research of Chinese scholar Cui & Fu (2002), in which all the scales above 10 items adopt Likert 7-point scale, 1 means “strongly disagree” and 7 means “strongly agree”.

6. Experimental procedures

6.1 Ask the objects to read the corporate text introductions of the crisis enterprise, Fast Food A and the competition enterprise,

Fast Food B.

6.2 Ask the objects to read the negative publicity of Fast Food A’s brand and score the brand equity of Fast Food B based on the negative publicity of Fast Food A. These scores are used for manipulation and do not need to be tested.

6.3 Ask the objects to read the response statement issued by the competitor Fast Food B in response to the negative publicity of Fast Food A, and re-evaluate the brand equity of the competitor Fast Food B. These scores are used for the pre-test hypothesis test of brand equity.

6.4 Ask the objects to re-evaluate the brand equity of the competitor Fast Food B in combination with the response statement of Fast Food B. These scores are used for post-test hypothesis test of brand equity.

6.5 Ask the objects to fill in questions associated with demographic characteristics. These scores are used for sample description in table 2.

Table 2 Manipulation check of crisis event attributes

material group	type	N	M	S.D.	F
material group of corporate immorality crisis	corporate morality	71	5.21	1.081	8.91**
	Morality-quality	71	4.62	1.467	
group of product quality crisis brought by morality	corporate morality	67	3.49	1.295	40.48***
	Morality-quality	67	4.72	1.070	

Note: * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$

Results

1. Manipulation inspection

1.1 Types of negative publicity of crisis enterprises. In the material group of corporate

immorality crisis, variance analysis reveals that $M_{\text{corporate immorality crisis}} = 5.21$, $M_{\text{morality-quality crisis}} = 4.62$; $F = 8.91$, $P = 0.004$; in the material group of product quality crisis brought by morality,

variance analysis shows: $M_{\text{corporate immorality crisis}} = 4.62$; $F=7.91$, $P<0.05$; in the material group of statements of clarification, variance analysis suggests that $M_{\text{clarification}} = 4.47$ and $M_{\text{denial}} = 3.96$; $F=5.170$, $P<0.05$. The results demonstrate that the experimental materials are successfully manipulate in table 3.

1.2 Types of response statements of competitive enterprises. In the material group of statements of denial, variance analysis indicates that $M_{\text{clarification}} = 4.01$ and $M_{\text{denial}} =$

Table 3 Manipulation check of crisis event attributes

material group	type	N	M	S.D.	F
material group of statements of denial	Denial	60	4.62	1.294	8.91**
	Clarification	60	4.01	1.408	
material group of statements of clarification	Denial	78	3.96	1.263	5.17*
	Clarification	78	4.47	1.544	

Note: * $P<0.05$, ** $P<0.01$, *** $P<0.001$

2. Hypothesis testing

2.1 Types of Negative Publicity of Crisis Enterprises and Change Value of Brand Equity of Competitive Enterprises.

The dependent variable of this research model is the change value of brand equity of competitive enterprises, which refers to subtracting the mean value of brand equity measured before from the attitude of post-test brand equity. Hence, after grouping the objects, the paired sample t-test is

used to test the two groups of samples of negative publicity of crisis enterprises to measure whether the attitudes of the two groups of objects towards brand equity of competitive enterprises have changed significantly before and after the competitive enterprises' response statements. The results are shown in the following table by matching the data before and after in SPSS19.0 statistical software and comparing the mean values.

Table 4 Paired sample t-test of attitudes to brand equity of competitive enterprises

Experimental group	Number of samples	Mean value of original brand equity	Post-test mean value of brand equity	Value of change in brand equity	t value	df	Sig.
Corporate immorality crisis	67	4.3507	3.6672	-0.6836	-6.516***	66	0.000
Morality-related quality crisis	71	4.6775	3.6944	-0.9831	-9.737***	70	0.000
Total	138						

Note: * $P<0.05$, ** $P<0.01$, *** $P<0.001$

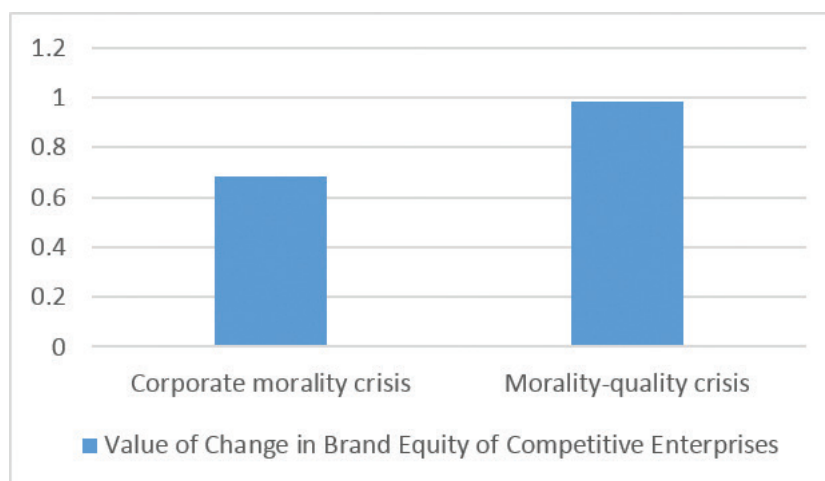


Figure 2 Value of change in brand equity of competitive enterprises

As can be seen from table 4 and figure 2, before and after the negative publicity of crisis enterprises, the zero hypothesis that brand equity of competitive enterprises in the group of morality-related quality and performance failure crises and the group of corporate immorality crises refuse the T-test, and the differences are highly significant.

In other words, before and after the crisis, the attitudes of the two groups of objects towards the brand equity of competitive enterprises have obviously decreased, which suggests that the value related negative publicity of crisis enterprises will have negative spillover effects on the competitive enterprises, and the negative

spillover degree of the morality-related quality and performance failure negative publicity of crisis enterprises to the competitive enterprises is greater than that of corporate immorality negative publicity. Hence, hypotheses H1A, H1B and H2 are supported.

2.2 Detection of interaction between types of negative publicity and types of response statements

Using the method of ANOVAs analysis, this paper analyzes the impact of types of negative publicity of crisis enterprises on the value of changes in the attitude of competitive enterprises to brand equity under the conditions of response statements of clarification and denial. The results are shown in table 5.

Table 5 Tests of between-subjects effects based on brand equity change (Dependent variable: value of change in the competition brand equity)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	16.853	3	5.618	8.797***	.000
Intercept	104.071	1	104.071	162.971***	.000
Types of negative publicity	1.287	1	1.287	2.015	.158
Types of Response statements	13.652	1	13.652	21.378***	.000
Error	85.571	134	.639	8.797	
Total	199.260	138		162.971	
Corrected Total	102.424	137		2.015	

Note: *P<0.05, **P<0.01, ***P<0.001

The results of variance analysis in the table 5 demonstrate that the interaction between types of negative publicity and response statement types also exerts a significant impact on the change of competitive enterprises' attitude towards brand equity. When $F=21.378$, $p<0.001$. The interaction between types of negative

publicity and response statement types is significant, which reveals that when types of negative publicity affect the negative spillover effect of competitive enterprises, they are also regulated by the response statement types of competitive enterprises. To verify the hypothesis, the current study needs to do further simple effect tests.

Table 6 Simple main effects of crisis event attributes and response strategies types (Dependent variable: value of change in the competition brand equity)

Types of negative publicity of crisis enterprises	Competitive enterprises' response statements	\bar{x}	S.D.	F value	Sig.
Morality-related quality	Clarification	-.837	.091	13.905*	0.000
	Denial	-.940	.105		
Corporate immorality	Clarification	-.987	.095	7.866*	0.007
	Denial	-.789	.102		

Note: *P<0.05, **P<0.01, ***P<0.001



Figure 3 Interaction between negative event types of crisis enterprises and coping statements of competing enterprises

With reference to table 6 and figure 3, when the objects come into contact with the “clarification” strategy of competitive enterprises, the mean values of change of attitude towards brand equity are -0.837 and -0.987 respectively under the conditions of “morality-related quality and performance crisis” and “corporate immorality crisis”; when the objects come into contact with the “denial” strategy of competitive enterprises, the mean values of change of attitude of competitive enterprises towards brand equity in the “morality-related quality and performance crisis” and “corporate immorality crisis” are -0.94 and -0.789 respectively. The data demonstrate that no matter what type of negative publicity, competitive enterprises’ response statements have a significant impact on the change of competitive enterprises’ attitude towards brand equity. When $P < 0.05$, the negative spillover effect can be adjusted, the “clarification” statement weakens the negative spillover effect of the “morality-related quality and performance crisis”, and

the “denial” statement weakens the negative spillover effect of the “corporate value related crisis”. Therefore, Hypothesis H3A and Hypothesis H3B are supported.

Conclusion and Discussion

Negative events of corporate values emerge in endlessly, which not merely exert immeasurable negative effects on crisis enterprises, but inevitably spill over to competitive enterprises, enlarging the depth and breadth of crisis spillovers. Upon occurrence of the crisis spillover effect, competitive enterprises are most concerned about the choice of the response statement. Nevertheless, in marketing practice, corporate managers usually deal with it by virtue of their experience and intuition. Their choice of the response statement is extremely random, which is hard to achieve the expected effect and even further aggravates the negative impact of the crisis spillover. Hence, it is imperative to work out a feasible crisis response statement by taking empirical methods.

To achieve this goal, the current research has launched research through field experiments, verifying the impact of two different types of value-oriented negative events on the negative spillover of competitive enterprises in real life, and drawn two conclusions as a result: 1) the negative events of product quality triggered by corporate ethical and moral performance exert a negative impact on competitive enterprises. In comparison with the negative events of corporate morality, the negative events of product quality triggered by morality exert a greater negative impact on competitive enterprises. Hence, competitive enterprises need to be more active and cautious when they are confronted with the value-oriented negative events triggered by morality. Thus, when a crisis enterprise's value-oriented negative event breaks out, predicting its type is of crucial significance for competitive enterprises to put an end to the spillover effects of the crisis. 2) When moral hazard results in quality-oriented negative events in crisis enterprises, the optimal response for competitive enterprises is to make a clarification response statement. In the views of WANG YU and other scholars, the clarification statement emphasizes the distinct difference from crisis enterprises by transmitting more and more novel information, helps consumers to acquire diagnosable information, and decreases the impact of negative spillover; while when there are moral negative events in crisis enterprises, the optimal strategy for competitive enterprises is to issue a denial statement on the grounds that morality-oriented negative events of crisis enterprises occur spontaneously

in a certain environment. The denial statement can quickly correct the wrong inference triggered by negative spillovers of consumers, avoid the involvement of crisis enterprises and decrease the impact of negative spillovers. The contribution of the current research lies in that theoretically, taking the spillover effect of negative events of corporate values on competitive enterprises as the research background, the research introduces the moderating variable of response statement of competitive enterprises to supplement the relevant research on the spillover effect of existing enterprises' crises; from the point of view of competitive enterprises' response statements, the pros and cons of the response statements are compared with different types of value-oriented negative events. It is found that there exists interactions between the types of value-oriented negative events and the response statements of competitive enterprises. Besides, it is also successfully proved that after the occurrence of value-oriented negative events, in order to eliminate the impact of negative spillover to the greatest extent, competitive enterprises need to select targeted crisis response statements based on different types of negative events. From a practical perspective, the current research comes up with a new idea for enterprises to address the impact of negative spillover from value-oriented negative events. It makes enterprises realize that there is no eternal and universal method to address all negative spillover from crises. Hence, corporate managers must well know the significance of the crisis response statements. In view of the negative spillover of the crisis,

it is essential for competitive enterprises to timely and accurately predict the type of crisis and dynamically select the response statements in a bid to achieve twice the result with half the effort.

There are certain limitations in the current research: 1) the universality of the research conclusion needs to be further tested. In the experiment, only fast food enterprises are used as test products, which is highly representative for the catering

industry. However, whether the conclusion is applicable to other types of enterprises needs to be further verified through comparative research across different product types; 2) the research content does not take into account other variables such as brand status, product category, consumer brand commitment, etc. In subsequent research, different levels of influencing factors can be added to continue to explore the repair process after brand crisis spillover.

References

- Ahluwalia, R., Burnkrant, R. E. & Unnava, H. R. (2000). Consumer response to negative publicity: The moderating role of commitment. *Journal of marketing research*, 37(2), 203-214.
- Ahluwalia, R., Unnava, H. R. & Burnkrant, R. E. (2001). The moderating role of commitment on the spillover effect of marketing communications. *Journal of Marketing Research*, 38(4), 458-470.
- Brown, T. J. & Dacin, P. A. (1997). The company and the product: Corporate associations and consumer product responses. *Journal of marketing*, 61(1), 68-84.
- Chen, Y., Ganesan, S. & Liu, Y. (2009). Does a firm's product-recall strategy affect its financial value? An examination of strategic alternatives during product-harm crises. *Journal of Marketing*, 73(6), 214-226.
- Coombs, W. T. (2007). Protecting organization reputations during a crisis: The development and application of situational crisis communication theory. *Corporate reputation review*, 10(3), 163-176.
- _____. (1999). An analytic framework for crisis situations: Better responses from a better understanding of the situation. *Journal of public relations research*, 10(3), 177-191.
- Coombs, W. T. & Holladay, S. J. (2009). Further explorations of post-crisis communication: Effects of media and response strategies on perceptions and intentions. *Public Relations Review*, 35(1), 1-6.
- Cui, J. H. & Fu, G. Q., (2002). Impact of Product Harm Events on Changes in Brand Equity. *Nankai Business Review*. *Nankai Business Review*, 5(5), 17-22. [in Chinese]
- Dahlen, M. & Lange, F. (2006). A Disaster is Contagious: How A Brand in Crisis Affects Other Brands. *Journal of Advertising Research*, 46(4), 388-397.
- Dawar, N. & Pillutla, M. M. (2000). Impact of product-harm crises on brand equity: the moderating role of consumer expectations. *Journal of Marketing Research*, 37(2), 215-226.
- Fang, Z., Jiang, M., Yang, Y. & Li, W. (2010). Research on the Impact of Response Strategies of Product Harm Crisis on Brand Assets - Moderating Effects of Corporate Reputation and Crisis Types. *Management World*, (12), 105-118. [in Chinese]
- Fang, Z., Yang, Y., Jiang, M., Li, W. & Li, S. (2011). Research on the Impact of Defendable Product Harm Crisis Response Strategies on Brand Assets: the Role of Moderating Variables and Mediating Variables. *Nankai Business Review*, 14(4), 69-79.

- Feldman, J. M. & Lynch, J. G. (1988). Self-generated validity and other effects of measurement on belief, attitude, intention and behavior. *Journal of applied Psychology*, 73(3), 421.
- Gao, P. & Lu, G. (2018). Study on the influence of involvement degree on customer forgiveness in catering industry under the product-harm crisis. *Panyapiwat Journal*, 10(2), 60-71. [in Thai]
- Gutnik, L. A., Hakimzada, A. F., Yoskowitz, N. A. & Patel, V. L. (2006). The role of emotion in decision making: A cognitive neuroeconomic approach towards understanding sexual risk behavior. *Journal of biomedical informatics*, 39(6), 720-736.
- Janakiraman, R., Sismeiro, C. & Dutta, S. (2009). Perception spillovers across competing brands: A disaggregate model of how and when. *Journal of Marketing Research*, 46(4), 467-481.
- John, D. R., Loken, B. & Joiner, C. (1998). The negative impact of extensions: can flagship products be diluted? *Journal of Marketing*, 62(1), 19-32.
- Jun, W., Ping, Q. & Hui-Chao, L. I. (2015). Asymmetric Effects of Negative Spillover Between Competition Brands in The Product-Harm Crisis. *Soft Science*, 29(2), 126-130. [in Chinese]
- Kraikunasai, J., Chongcharoen, K., Ngudgratoke, S. & Pukchanka, P. (2017). A Causal Model of Administrative Factors Affecting Educational Quality in Vocational School. *Panyapiwat Journal*, 9(2), 171-184. [in Thai]
- Keller, C. (1993). Measuring and Managing Customer-Based Brand Equity. *Journal of marketing*, 57(1), 1-22.
- Lei, J., Dawar, N. & Lemmink, J. (2008). Negative spillover in brand portfolios: Exploring the antecedents of asymmetric effects. *Journal of marketing*, 72(3), 111-123.
- Pullig, C., Netemeyer, R. G. & Biswas, A. (2006). Attitude Basis, Certainty and Challenge Alignment: A Case of Negative Brand Publicity. *Journal of the Academy of Marketing Science*, 34(4), 528-542.
- Rabbani, M., Aghabegloo, M. & Farrokhi-Asl, H. (2016). Solving a bi-objective mathematical programming model for bloodmobiles location routing problem. *International Journal of Industrial Engineering Computations*, 8(1), 19-32.
- Rea, B., J. Wang, Y. & Stoner, J. (2014). When a brand caught fire: the role of brand equity in product-harm crisis. *Journal of Product & Brand Management*, 23(7), 532-542.
- Roehm, M. L. & Tybout, A. M. (2006). When Will A Brand Scandal Spill Over, and How Should Competitors Respond? *Journal of Marketing Research*, 43(3), 366-373.
- Siomkos, G. J. & Kurtz, G. (1994). The hidden crisis in product-harm crisis management. *European journal of marketing*, 28(2), 30-41.
- Tybout, R. A. M. (2006). When will a brand scandal spill over, and how should competitors respond? *Journal of Marketing Research*, 43(3), 366-373.
- Votola, N. L. & Unnava, H. R. (2006). Spillover of negative information on brand alliances. *Journal of Consumer Psychology*, 16(2), 196-202.
- Wang, F. (2008). Internal Validity and External Validity in Field Experiment - with a Comparison with Laboratory Experimentation. *Journal of Psychological Science*, 31(4), 932-935. [in Chinese]
- Wang, X. Y. & Zhao, G. L. (2009). Review of Studies on Negative Exposure of Enterprise Marketing. *Foreign Economics and Management*, 31(2), 33-39. [in Chinese]

- Wu, S. & Tang, S. (2017). A Comparative Study on the Effect of Coping Strategies in Spillover Effect of Product Harm Crisis - Based on the Perspective of Brand Relative Position. *Journal of Management*, 30(6), 33-41. [in Chinese]
- Xue, J., Hua, H., Yang, Y. & Fang, Z. (2016). Research on the Effect of Similarity on Spillover Effect of Crisis. *Journal of Central University of Finance & Economics*, (8), 103-112. [in Chinese]
- Xu, H. & Zhang Y. X. (2008). Psychological Research Methods: Experimental Design and Data Analysis. *People's Education Press*, 144(1), 198-212. [in Chinese]
- Yu, W., Zhang, X. & Duan, G. (2015). Response Strategy Research to Brand Scandal Spillover Effect under Weibo Environment. *Soft Science*, 29(2), 6-10. [in Chinese]
- Zhao, Y., Zhao, Y. & Helsen, K. (2011). Consumer learning in a turbulent market environment: Modeling consumer choice dynamics after a product-harm crisis. *Journal of Marketing Research*, 48(2), 255-267.
- Zhuang, A. L. & Yu, W. P. (2011). An Empirical Study of the Spillover Effect of Immorality Brand Publicity: The Interaction of Event Type and Need for Cognition. *Journal of Business Economics*, 1(10), 60-67. [in Chinese]
- Zhuang, A. L. & Yu, W. P. (2014). Research on Brand Negative Exposure Event Spillover Mechanism Mediating Role of Consumer Association. *East China Economic Management*, 28(9), 143-149. [in Chinese]
- Zou, P. & Li, G. (2016). How emerging market investors' value competitors' customer equity: Brand crisis spillover in China. *Journal of Business Research*, 69(9), 3765-3771.



Name and Surname: Shengmin Ma

Highest Education: Ph.D. in Panyapiwat Institute of Management

University or Agency: Panyapiwat Institute of Management

Field of Expertise: Marketing



Name and Surname: GuoQing Guo

Highest Education: Ph.D. in Renmin University of China of Technology, China

University or Agency: Panyapiwat Institute of Management

Field of Expertise: Marketing