

# Research on the Influence of Conflicting Brand Crisis Information on Consumers' Brand Attitude

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## Abstract

In recent ten years, brand crises occur frequently. Consumers are often faced with the situation that they don't even know whether the involved brand is innocent or not. This paper aims to explore how conflicting information influences the information selection and brand attitude change of consumers in contradictory situation—defensible brand crisis. We carried out an experiment using a two-level single factor (brand commitment: high vs. low) between-subjects design. The results show that conflicting information has a significant negative impact on consumers' brand attitude. And brand commitment plays as a moderating role between the relationship of conflicting information and brand attitude. Implications of the results are discussed.

## Keywords

Brand Crisis, Conflicting Information, Brand Commitment, Brand Attitude

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## 1. Introduction

In recent ten years, brand crises occur frequently, e.g., Sanlu milk powder incident; Nongfu Spring standard controversy. Consumers are often faced with the situation that they don't even know whether the involved brand is innocent or not. Because for a brand crisis event, consumers can receive information from various sources, and sometimes these opinions are clash with each other, even contradictory.

Taking Nongfu Spring standard controversial event for example, at the beginning, there was a news report claiming that the product executive standard of Nongfu Spring drinking water was provincial standard in some factories, worse still, the drinking water provincial standard was more looser than running water standard. Straight after the report, information from lots of media and third-party organizations was everywhere. These

reports could be divided into two contradictory sides, one insisted that the quality of Nongfu Spring drinking water was higher than national standard even it used the provincial standard, and the other maintained the opinion that not executing the national standard was a definite fact. The reactions of consumers of the event were varied. According to the investigation of Sina finance and economics, among 279,445 respondents, 58.5% supported Nongfu Spring, 19% were against Nongfu Spring, and 22.1% had no definite attitude. Nongfu Spring suffered much from the disputed incident. Over 50% respondents stopped purchasing Nongfu Spring drinking water, and 12% respondents said they no longer bought Nongfu Spring. So, the contradictory brand crisis situation should be highlighted. As a consumer who had bought Nongfu Spring drinking water, how should he make a choice among the conflicting information? Here comes the research problem of this paper: In a brand crisis event, how do consumers deal with the conflicting information? And whether the brand attitude could be influenced or not?

Existing research studies about brand crisis mostly focus on the influence of the negative information (e.g., Ahluwalia *et al.*, 2000; Dawar & Pillutla, 2000) [1] [2], and few notice the cases that concluding both positive information and negative information. Carefully observing the realistic consuming situation, we can find that consumers are often faced with different opinions that are quite complicated, even contradictory in a brand crisis event. So, focusing on the brand crisis that includes conflicting information (both positive and negative information) has practical significance. What's more, in the conflicting information study field, research objects are mostly strange products, e.g., the influence of online reviews on consumers. By taking the consumer-brand connection into consideration to explore whether pre-existing brand emotion can influence the information choice or not, this paper enriches the existing studies.

## 2. Theoretical Background and Hypotheses

### 2.1. Conflicting Information

#### 2.1.1. The Formation of Information Conflict

The conflict comes from the coexisting of inconsistent positive and negative information. HUANG Min-Xue *et al.* (2010) divided the diversified word-of-mouth information into information on positive bias and information on negative bias [3]. Thibault Gajdos (2013) studied the decisions on the basis of information coming from several experts [4]. The conflicting situation is conflicting messages from two equally believable sources.

#### 2.1.2. Classification of Conflicting Information

Prior research studies on conflicting information pay much attention to two aspects: one is the conflicting information between different attributes of a product or brand, called between-attributes conflicting information; the other one is the conflicting information among an attribute, called within-attribute conflicting information (JIANG Xiao Dong *et al.*, 2013) [5]. This paper researching on the contradictory information in a brand crisis is the within-attribute conflicting information.

### 2.2. The Influence of Conflicting Information on Consumer

Existing researches about the influence of conflicting information mostly taking information processing level, brand attitude and purchase intention as dependent variables. Research conclusions of the impact of conflicting information are in dispute. Based on inoculation theory, attribution theory and assimilation-contrast theory, some researchers found that conflicting information had a positive effect in marketing environment. They considered that conflicting information can improve the perceived credibility, thus increasing persuasion (Man Yee Cheung *et al.*, 2009; SUN Chun-hua and LIU Ye-zheng, 2009) [6] [7].

But there are completely opposite findings showing that conflicting information has a negative impact on consumers. Moorman *et al.* (2008) found that after reading the conflicting information from newspaper about the function of vitamin B6, the confidences of consumers for the experts would decline [8]. Naylor *et al.* (2009) demonstrated that, compared to consumers with higher health consciousness, consumers with lower health consciousness significantly lower their likelihood of choosing a functional over a nonfunctional food when faced with conflicting (versus complementary) information [9].

According to cognitive dissonance theory, the conflicting information requires consumers for more cognitive resources, the more conflict, the more cognitive resources required (Heckler & Childers, 1992; Meyers-Levy &

Tybout, 1989) [9] [11]. Compared to consistent information, conflicting information can lead to more ambivalent attitude (Klaus Jonas and Michael Diehl, 1997) [12].

In a contradictory brand crisis event, the conflicting information that contains both positive information and negative information increases the difficulty of information selection. According to information processing theory, when faced with conflicting information (for vs. against the involved brand), consumers tend to select one biased information to reduce the difficulty of selection. On the basis of effect of negative information, compared to positive information, negative information has a greater influence on consumers. In the contradictory brand crisis situation, negative information is more interpretable. Consumers process the negative information more carefully than the positive information (Roehm and Tybout, 2006) [13]. So we guess, influenced by the effect of negative information, conflicting information has a negative impact on consumers without considering other influential factors. Thus:

H1. Influenced by the effect of negative information, conflicting information can lead to the decline of consumer's brand attitude.

### 2.3. Brand Commitment

Brand commitment is the willingness of consumer to maintain the relationship with the brand, and it is the potential drive of consumer loyalty (Bendapudi, Neeli, Leonard L. Berry, 1997) [14]. Brand commitment is the emotional and psychological reliance of consumer on brand and the desire to maintain long-term interaction relationship with the brand.

### 2.4. The Influence of Brand Commitment in Brand Crisis

Results of existing researches about the influence of brand commitment in brand crisis (only negative information) are controversial. Based on expectation-disconfirmation theory and Bayesian learning theory, some researchers found that brand commitment can intensify the negative impact of brand crisis (Xiaoyu Wang, 2010) [15]. However, based on prior judgment integration theory, biased assimilation theory and attribution theory, some researchers found that brand commitment can weaken the negative influence of brand crisis (Ahluwalia *et al.*, 2000; TIAN Yang *et al.*, 2014) [1] [16]. Other influential factors like the severity of the crisis, product properties and environmental factors are the reasons why the role of brand commitment in brand crisis differs. In the contradictory brand crisis, the coexistence of positive information and negative information offers the consumers opportunity to make a biased choice, especially for those who have high brand commitment. Therefore, we speculate that in contradictory brand crisis, brand commitment plays a positive role.

According to cognitive dissonance theory, when one receives information that is inconsistent with his previous belief, attitude or expectation, he will encounter cognitive dissonance. Cognitive dissonance is always along with anxiety, tension and displeasure (Raju & Unnava, 2006) [17]. And these negative feeling scan form a kind of pressure that forces the consumers to try every means to alleviate or eliminate the discordance. In a brand crisis event, consumers with high commitment will go through cognitive dissonance after receiving the negative information about the brand (Ahluwalia *et al.*, 2000) [1]. And the negative status will impel the high commitment consumers to use various methods to relieve the maladjustment. So, we guess, when receive the conflicting brand crisis information, high brand commitment consumers tend to adopt positive information and ignore the negative information to reduce the dissonance and be consistent with the prior brand attitude. Thus:

H2. When receive the conflicting brand crisis information, compared with the low brand commitment consumers, high brand commitment consumers tend to focus on positive information and their brand attitude change little.

Different from the high brand commitment consumers, low brand commitment consumers haven't developed strong psychological connection with the brand. When exposed to negative information about the target brand, low brand commitment consumers seldom suffer the cognitive dissonance. Faced with the conflicting information, unlike the high brand commitment consumers tending to focus on positive information, low brand commitment consumers are more rational and they think negative information is more attractive and more interpretable (Herr *et al.*, 1991) [18]. This is called negative bias effect which can inhibit low brand commitment consumers from selecting the positive information. Thus:

H3. When receive the conflicting brand crisis information, compared with the high brand commitment consumers, low brand commitment consumers tend to focus on negative information and their brand attitude decline dramatically.

### 3. Research Design and Data Collection

#### 3.1. Research Design

The research data of this paper was from experimental study. Conflicting information was the simultaneous presentation of positive information and negative information. This experiment used a two-level single factor (brand commitment: high vs. low) between-subjects design. There were 106 participants took part in the experiment.

#### 3.2. Pre-Test

Participants of the experiment were college students. So the brand used in the experiment must meet the following several requirements: 1) the product is bought and used by most college students; 2) the brand has high familiarity; 3) the experiment stimulus has no gender difference; 4) brand commitment is widely distributed. What's more, to avoid the influence of consumer's familiarity of the brand crisis event, experimental materials were adapted from real brand crisis event.

According to the requirements of brand, this experiment selected sneaker, mobile phone and drinking water as the product categories options. We selected top 10 brands in popularity and market share of each category, and measured their brand frequency of use, brand familiarity, perceived quality and degree of preference. Then picked out top 3 brand of each category (sneaker-Nike/Adidas/NewBalance; mobile phone-Apple/Samsung/Huawei; drinking water-Nongfu Spring/Cestbon/Ganten) and measured their brand familiarity, brand attitude and brand commitment respectively. 50 students took part in the pre-test. After removing two invalid subjects, there were 48 effective subjects.

Results in **Table 1** show that Nike has higher brand familiarity ( $M = 4.71$ ), widely-distributed brand attitude ( $M = 5.23$ ,  $SD = 1.2$ ) and widely-distributed brand commitment ( $M = 4.61$ ,  $SD = 1.62$ ), meeting the requirements of experiment stimulus selection. Therefore, we chose Nike as the experiment stimulus brand.

#### 3.3. Procedure

We posted recruitment advertising (Including the experimental requirements: participants should be unfamiliar with the brand crisis of Nike, compensation: a notebook, time and place) on the campus BBS. One hundred and six college students from a south China university participated in the study.

The main experiment was composed of four parts. First, participants were led to read a brief introduction material about Nike and then filled out the brand familiarity, brand attitude and brand commitment scales. Second, we manipulated the conflicting information. A negative news about Nike (Nike sports shoes were detected to contain hormone NPE) was firstly presented to participants, and then participants would read conflicting information consisted of outlines of three positive information and three negative information related to the prior news. Then participants were required to select corresponding information according to their willingness to read the details of each piece of information. Third, all participants were asked to fill out brand attitude, news familiarity and news credibility scales after step three. Finally, we collected population statistics information.

### 4. Data Analysis and Hypothesis Testing

106 university students participated in the formal experiment. We sifted through the data according to the integrity and normalization of questionnaire. In order to control the effect of previous cognition of the news, the score of news familiarity should be lower than 4. After eliminating 8 participants' data (two participants' news familiarity was higher than 4; six did not fill out questionnaires completely), we got 98 valid subjects.

**Table 1.** Descriptive analysis of Nike brand familiarity, brand attitude and brand commitment.

	N	Mean		SD
	Statistic	Statistic	SE	Statistic
Brand familiarity	48	4.7105	0.24123	1.48702
Brand attitude	48	5.2281	0.19521	1.20336
Brand commitment	48	4.6105	0.26336	1.62344

## 4.1. Descriptive Statistical Analysis

The proportions of male and female subjects participated in the experiment were close. As shown in **Table 2**. There were 53 males, accounting for 54.1%; 45 females, accounting for 45.9%. Men were slightly above women (the pre-test also revealed that Nike had more male customers).

Among all participants, subjects ranging 20 - 25 years old predominated, accounting for 82.7%; then below 20 years old and among 26 - 30 years old, accounting for 8.2%. According to result of the single factor analysis of variance, the effects of age on positive information selection ( $F = 0.248, p = 0.848$ ), negative information ( $F = 0.351, p = 0.704$ ) and consumers' brand attitude change ( $F = 0.996, p = 0.407$ ) were not significant.

Undergraduate students made up more than half of all participants, accounting for 62.2%; graduate students accounted for 36.7%.

## 4.2. Brand Commitment Grouping

Before grouping brand commitment, we ranked the valid experimental data according to brand commitment score. **Table 3** presents the brand commitment grouping. Based on median 3.8, scores of brand commitment higher than 3.8 were divided into high brand commitment group ( $M = 4.9$ ); scores of brand commitment lower than 3.8 were divided into low brand commitment group ( $M = 2.8$ ). The sample size of the high brand commitment group and the low brand commitment group both were 38. There was a significant difference between the high brand commitment group and the low brand commitment group ( $T = 24.538, p = 0.000$ ).

## 4.3. Manipulation Checks

### 4.3.1. Brand Crisis Event Manipulation Check

We selected hormone NPE crisis event of Nike sports shoes as the brand crisis stimulating material. Through the test analysis of the sample data, Nike had a high degree of brand familiarity ( $M = 4.28, SD = 1.37$ ) and the brand attitude was widely distributed ( $M = 5.30, SD = 5.23$ ), meeting the standards of brand selection. In addition, the news familiarity was low ( $M = 2.23, SD = 1.61$ ) and the perceived credibility of the news was high ( $M = 4.4, SD = 1.15$ ), according with the selection requirements of brand crisis event.

**Table 2.** Descriptive statistical analysis.

Question	Options	Frequency	Percentage (%)
Gender	Male	53	54.1
	Female	45	45.9
	Total	98	100.0
Age	Below 20	8	8.2
	20 - 25	81	82.7
	26 - 30	8	8.2
	Over 30	1	1.0
	Total	98	100.0
Educational level	Junior college student	1	1.0
	Undergraduate student	61	62.2
	Graduate student	36	36.7
	Total	98	100.0

**Table 3.** Brand commitment grouping.

Brand commitment	High brand commitment group		Low brand commitment group	
	Mean	SD	Mean	SD
	4.9	0.828818	2.8	0.64619

### 4.3.2. Conflicting Information Manipulation Check

Following each news outline, subjects were guided to judge whether the information was beneficial to the involved brand or not to check the validity of conflicting information manipulation. The results showed the mean value of the positive information was 5.64 and negative information was 2.21,  $F = 239.274$ ,  $p < 0.001$ . Therefore, the manipulation of conflicting information was effective.

## 4.4. Hypothesis Testing

### 4.4.1. The Influence of Conflicting Information on Consumers' Brand Attitude

According to the result of paired-samples T test, conflicting information had a significant influence on consumers' brand attitude. Before reading the conflicting information, the mean of participants' attitude to Nike was 5.3,  $SD_{AB} = 1.23$ . After reading the conflicting information, the mean of participants' attitude to Nike was 4.33,  $SD_{AB} = 1.2$ . The mean of brand attitude change was 0.97,  $T = 9.205$ ,  $p < 0.05$ , thus there was a significant change of brand attitude after reading the conflicting information. Therefore, H1 was supported.

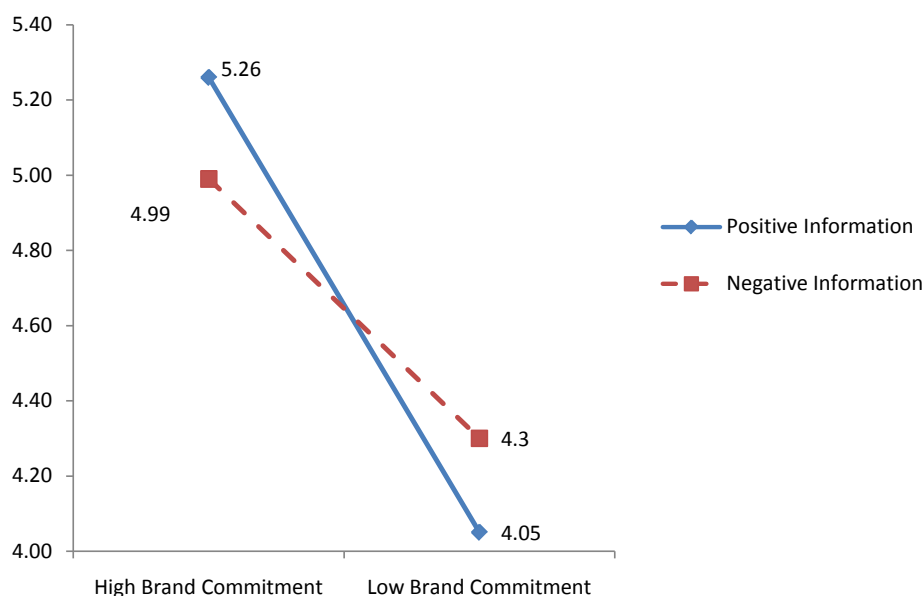
### 4.4.2. The Moderating Role of Brand Commitment

The t-test indicated that selection of positive information ( $M_P = 4.66$ ,  $SD = 1.63$ ) and negative information ( $M_N = 4.64$ ,  $SD = 1.53$ ) had no difference ( $M_{N,P} = -0.02$ ,  $T = 0.098$ ,  $p = 0.922 > 0.05$ ). **Figure 1** shows the comparison between high and low brand commitment groups on the choice of conflicting information. The results of the independent samples t-test showed that consumers with high brand commitment tended to select positive information ( $M_P = 5.26 > M_N = 4.99$ ,  $p = 0.048 < 0.05$ ), and consumers with low brand commitment tended to select negative information ( $M_N = 4.30 > M_P = 4.05$ ,  $p = 0.051 \approx 0.05$ ).

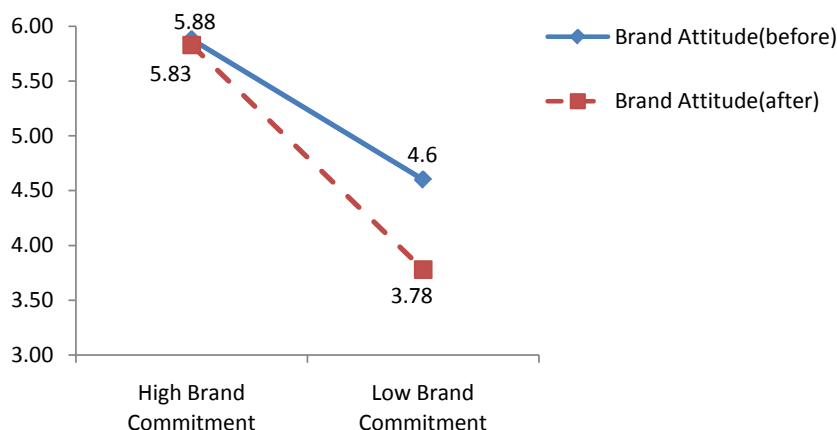
As shown in **Figure 2**. After reading the conflicting information, brand attitude of consumers with high brand commitment changed little ( $M_{HA} = 5.88$ ,  $M_{HB} = 5.83$ ,  $T = 1.416$ ,  $p = 0.163 > 0.05$ ), but brand attitude of consumers with low brand commitment declined significantly ( $M_{LA} = 4.6$ ,  $M_{LB} = 3.78$ ,  $T = 7.476$ ,  $p = 0.000 < 0.05$ ). So H2 and H3 were supported.

## 5. Conclusions

According to statistical analysis results, in a brand crisis event, conflicting information has a significant negative impact on consumers' brand attitude. And brand commitment plays as a moderating role between the relationship of conflicting information and brand attitude. When faced with conflicting information that includes both



**Figure 1.** Comparison between high and low brand commitment groups on the choice of conflicting information.



**Figure 2.** Moderating role of brand commitment.

positive information and negative information, consumers with high brand commitment tend to select positive information, and their brand attitudes toward to the involved brand change little; but for consumers with low brand commitment, they tend to select negative information and their brand attitude decline a lot.

The results of this paper could inspire the enterprise administrators to cope with contradictory situation—defensible brand crisis. We highlight the importance of rapid reaction once negative information appears even the company knows exactly that the brand is innocent. First, the crisis management team should real-timely supervise public opinion about the brand. Second, once negative information arises, the faster response the better, even the negative information is just from the grapevine. Find out the sources of the negative information and reasons why it appears, if the negative information already has produced a wider range of negative effects, the company should speak loudly about the whole event with detection report from authoritative third party, thus adding positive information and reducing negative information to control the negative impacts of conflicting information on consumers' brand attitude. In addition, the company should strengthen customer relation management to keep high brand commitment consumers maintaining the long-term interaction with the brand and to attract low brand commitment consumers paying attention to the brand.

The subjects of the experiment are all college students. Although we demonstrate that the brand and brand crisis event used in the formal experiment meet the requirements by pre-test, there are differences between college students and non-college students. So, it needs further verification whether the results of the research apply equally to other groups or not. In addition, the research tested the hypotheses through scenario simulation in lab study, thus the external validity remains to be improved.

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