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## Marketing ethics and consumer response of food companies: based on the questionnaire of consumers in Hunan

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### ABSTRACT

The article has inspected consumer evaluation and studied consumer response on marketing ethics of food enterprises through situational simulation experiments. The results show that consumers have significant different evaluations towards different marketing ethics because of food safety and enterprise charity behaviors, which have significant interaction effects on consumer evaluations.

### KEYWORDS

Corporate marketing ethics; Food enterprises; Consumers' response.



## INTRODUCTION

In many countries, consumers are playing an increasingly important role in promoting enterprises to fulfill marketing ethics<sup>[1]</sup>. Consumers' attitude and response degree to corporate marketing ethics have greatly influenced the behavior of the enterprises. The relationship between corporate marketing ethics and consumers' attitude also make the management realize the importance of undertaking marketing ethics<sup>[2]</sup>. In China, more and more companies are also trying to show concerns to consumers, employees, environment, and public welfares. To help managers of China understand the situation of consumers' evaluation and response to corporate marketing ethics, and to determine companies will invest the limited resources to what kind of marketing ethics behavior, this paper will study these through questionnaire and empirical research.

## RESEARCH HYPOTHESIS

Firstly, Marketing ethics and consumer performance. Consumer evaluation on corporate marketing ethics (herein after referred to as consumer evaluation) refers to impression that consumers produce by their own judgments towards corporate marketing ethics behaviors, and giving corresponding evaluation of corporate marketing ethics<sup>[3]</sup>. This paper argues that, unlike Western countries, the more serious and more urgent problem China's current food companies have faced is not the demands of high-quality products, but the basis food safety issue which is considered to have affected consumers' evaluation. Therefore, there are some hypothesis.

H11: Marketing ethics of food companies will affect consumer evaluation, food safety and charitable behaviors both exert a positive impact on consumer evaluation.

H12: Food safety and charitable behaviors have interacted impact for consumer evaluation, on the premise of ensuring food safety, charitable behaviors will help consumers make positive evaluations for corporate marketing ethics; On the contrary, despite a lot of corporate charity, once food safety problem appears, consumer evaluation will be greatly reduced.

Secondly, Marketing ethics and consumer response. Consumer response is the reaction generated by consumers to corporate marketing ethics, in other words, it's the influence produced on consumers' psychology and behavior by corporate marketing ethics. Draw lessons from existing research at home and abroad, it has analyzed consumers' response degree towards marketing ethics from their purchase intention. It deems that food companies have taken actions to shoulder corresponding marketing ethics, but the marketing ethics must be recognized by consumers, consumers can't make corresponding response until they make corresponding evaluation of corporate marketing ethics<sup>[4]</sup>. Consequently,

H2: it measures the results of corporate marketing ethics by consumer evaluation and considers that consumer evaluation influences consumers' response degree, namely the purchase intention.

Thirdly, Regulatory effects of personality traits on consumer response. Consumers' personality traits can be used to explain the difference of consumer response. This paper argues that consumers' education level and personal monthly income are important influencing factors for the response degree (purchase intention) of corporate marketing ethics, so choosing education level, personal monthly income as influencing factors for analysis, and making the following assumptions:

H3: Consumers with different traits also show significant differences of the response to corporate marketing ethics, personality traits such as education level, personal monthly income all play a regulatory role on consumer response.

## RESEARCH DESIGN AND DATA SOURCES

### Experimental design

In order to improve the measurement validity, dairy products which consumers are more familiar with is chosen in the simulated situations, taking dairy companies as the research object, and choosing food safety to describe the Marketing Ethics, studying how consumers evaluate companies' food safety influence on consumers' purchase intention.

The reasons are, firstly, food safety is important dimensions of corporate marketing ethics; Secondly, food safety is of particular concern for consumers in recent years. Those two aspects are hotspots for society and the public in recent years, which consumers are very familiar with. Based on the situational simulation method, we assume that there are A, B, C, D four major dairy production enterprises, their main products are carton milk of 250ml whose shelf life is 6 months, there is almost no difference in taste and packaging etc, and they have the same market price<sup>[5]</sup>. According to food safety, we have designed four simulated situations in positive and negative respectively, assuming that A, B, C, D four companies have positive and negative performance respectively in food safety, and through specific description of relevant facts and data to provide information on their marketing ethics.

### Measurement of variables

#### Measurement of marketing ethics

According to the design of experimental scenes, the study adopt 2 (food safety condition of food companies) x2 (charitable behaviors condition of food companies) to conduct the test. Food safety of food companies includes two levels: 1

= food safety has problems, 2 = food safety is guaranteed; Charitable behaviors also includes two levels: 1=conduct charitable behaviors inactively, 2=conduct charitable behaviors actively.

### Measurement of consumer evaluation

In the form of questionnaires the research has obtained consumers' evaluation of corporate marketing ethics. According to the experimental scenes of A, B, C, D four food companies provided in the questionnaires, corporate marketing ethics was evaluated in light of the Likert 5-point scale (from "A. very good" to "E. very poor") by consumers, depending on corresponding options to assign (1 = very poor, 5 = excellent), the result is the evaluation value of corporate marketing ethics made by consumers.

### Measurement of consumer response

Regarding the measure of consumer response, this study has borrowed related marketing ethics research scale (Gao Yang, 2010), and made proper adjustments of the measuring project according to the need of the experimental study, and has finally selected "take the boxed milk of the company as the preferred", "whether to buy it again next time" and "buy other related products in the company" these three items<sup>[5]</sup>. Likert scale 5-point is used to measure each question item, followed by "totally would, may, uncertain, basically won't, totally won't" 5 levels. Censusing the corresponding scores of the three different measurements according to consumers' choices, adding up the three measurements, obtaining the value of Purchase intention, the higher the score, the more strongly the desire to purchase.

### Questionnaire survey and data collection

#### Design of the questionnaire.

Based on the brief explanation of the investigating purpose, the questionnaire is divided into two main parts. The first part is personal basic information, including gender, age, education level, family size, occupation, family monthly income level, living place and so on. The second part includes four scenes, providing related reports of A, B, C, D four food enterprises bearing marketing ethics respectively, asking different consumers to evaluate corporate marketing ethics and determining its response condition.

#### The implementation of the questionnaire survey

In order to understand consumers' assessment and response situation of food corporate marketing ethics, on the basis of relevant research results at home and abroad and the combination of the characteristics of food business we have designed a preliminary questionnaire. In July-August 2013, we organized 30 college students to carry out investigations within 8 cities in Hunan Province.

In this study, a total of 1500 questionnaires were provided and 1327 questionnaires were returned. In numbering and inspecting the content of the questionnaires, we have eliminated 142 valid questionnaires which is considered as obviously not seriously filled and with many items not finished, 1185 valid questionnaires have finally been retained, the effective return rate is 79%.

## RESEARCH RESULTS AND DISCUSSIONS

### Marketing ethics and consumer response of food enterprises

To inspect if food safety and enterprise charity affects consumers' evaluation of corporate marketing ethics, as well as whether there is interactive effects between food safety and enterprise charity, and to validate the proposed hypothesis H1, this paper uses SPSS 17.0 statistical software and adopt the analysis of variance (ANOVA) method to study the effects that corporate marketing ethics behaviors have on consumers, each respondent constitutes a unit of analysis. Taking food safety and enterprise charity as independent variables, food safety condition included two levels (1 = food safety has problems, 2=food safety is guaranteed). Enterprise charity also includes two levels: 1= conduct charitable activities inactively, 2=conduct charitable activities actively. Taking consumers' evaluation of marketing ethics with the food companies (1= very poor, 5=very good) as the dependent variable. The test results are shown in TABLE 1, the mean margin of variables and interaction effects are shown in TABLE 2. It can be drawn from TABLE 1 and TABLE 2 that both in terms of food safety and enterprise charity, corporate marketing ethics behaviors have a significant impact on consumers to evaluate the marketing ethics; food safety and enterprise charity as well as their interaction affect consumers' evaluation of marketing ethics significantly.

According to the results of analysis of variance, further analysis is as follows:

(1) According to the results in TABLE 1 and TABLE 2, we can find that consumers evaluate marketing ethics of companies which guarantee food safety obviously more highly than those have food safety problems (the average evaluation of the former is 3.898, while the latter is 1.169,  $F(1,1498) = 6967$ ,  $P < 0.001$ ). And consumers evaluate marketing ethics of companies which carry out charitable activities distinctly more highly than those never have done. (the average of evaluation of the former is 2.938, the latter is 2.139,  $F(1,1498) = 609.599$ ,  $P < 0.001$ ). It shows that enterprises' different marketing ethics

behaviors as ensuring food safety and engaging in charitable activities will have a positive impact on consumer evaluation, and negative marketing ethics behaviors will lead consumers to make negative evaluations.

**TABLE 1 : Inspection of main effects and interaction effect dependent variable**

Source	Type III Sum of Squares	Df.	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	3165.809a	3	1054.851	2.639E3	0.000	0.839
Intercept	9642.496	1	9642.496	2.399E4	0.000	0.932
Food safety	2786.414	1	2786.414	9.970E3	0.000	0.834
Charitable behaviors	243.842	1	243.842	609.599	0.000	0.290
Food Safety×Charitable behaviors	107.254	1	107.254	270.581	0.000	0.154
Error	598.391	1181	0.401			
Total	13373.2541	1185				
Corrected Total	3764.211	1184				

**A.R Squared=0.839 (Adjusted R Squared=0.840)**

**TABLE 2 : The mean marginal table of variables and interaction effect**

Dependent Variable	Evaluation of marketing ethics		
	mean	sample size	F
Food Safety			6.968E3*
Has problem	1.169	648	
Guaranteed	3.898	537	
Charitable behaviors			609.599*
Negative	2.139		
Positive	2.938		
Food safety × Charitable behaviors			270.581*
Food safety has problem, Charitable behaviors is negative	1.038	296	
Food safety has problem, Charitable behaviors is positive	1.307	301	
Food safety is guaranteed, Charitable behaviors is negative	3.226	288	
Food safety is guaranteed, Charitable behaviors is positive	4.568	300	

**\*p<0.001**

(2)According to the results shown in TABLE 2, we can also find that ensuring food safety and carrying out charitable behaviors have significant interaction ( $F(1,1498) = 270.581, P < 0.001$ ), it supports the hypothesis H12. Under the premise of ensuring food safety, charitable behaviors will largely enhance consumer evaluation of corporate social responsibility, the average of evaluation for actively engaging in charitable activities is 4.568, for not engaging in charitable activities, the value is 3.226, evaluation for engaging in charitable behaviors is 1.343 significantly higher than that of not engaging in charitable behaviors; but when food safety has problems, the average for actively engaging in charitable activities drops to 1.307 from 4.568 while for not engaging in charitable activities it drops from 3.226 to 1.038, a significant decline in consumer evaluation. In the case of food safety issues arise, the evaluation average of engaging in charitable behaviors is only 0.269 higher than that of not engaging in charitable behaviors, the difference is small, the average is in the "very poor" rating level. It shows that food safety is crucial for food businesses, once food safety problems appear, charitable behaviors can not affect the negative evaluation consumers make for food problems of enterprises, the "insurance" role of carrying out charitable behaviors almost does not exist.

### Marketing ethics and consumer response of food enterprises

In order to find the relationship between marketing ethics and consumer response of food enterprises and test the proposed hypothesis H2, we take purchase intention as the explanatory variable, consumer evaluation as the explanatory variable, and consumers' gender, age, educational levels, occupation, personal monthly income, living areas etc. as control variables, and use statistical software SPSS17.0 to conduct hierarchical regression. Entering the regression equation by the

first step is the control variable, the second is the explanatory variable, analysis results are shown in TABLE 3 R<sup>2</sup>,F,ΔR<sup>2</sup> and their significant levels show that the overall effect of the regression model is ideal.

**TABLE 3 : Hierarchical regression results on purchase intention**

	<b>Purchase Intention</b>	
	<b>Model 1</b>	<b>Model 2</b>
<b>First step: control variables</b>		
Gender	0.438	-0.097
Region	0.289	0.017
Age	0.232	-0.007
Personal monthly income	0.301	0.072***
Education level	0.339	0.071
occupation	-0.308	0.022
<b>Second step: explanatory variable</b>		
Marketing ethics of food company		2.494
Explanation variable R <sup>2</sup> of the model	0.031	0.817
ΔR <sup>2</sup>	0.031	0.789
F value of the model	7.701	

**\*p<0.001**

From results of TABLE 3, the control variable explains the variance 3.0% of purchase intention (F=7.701, p<0.001), but after adding marketing ethics performance food enterprises into the equation, the explanatory ability of the model increased by 78.8% (F = 958.812, p< 0.001). It suggests that consumer response to marketing ethics of food companies is significantly and positively related to consumer evaluation of marketing ethics (β=2.494,p<0.001), which verifies the hypothesis H2 and explains the higher the consumer evaluation for marketing ethics of food enterprises is, the higher the consumer response degree of it, namely that undertaking marketing ethics actively has positive influence on consumers' purchase intention, it's consistent with the research conclusions of Sen (2001) and Mohr (2005), that is, consumers are willing to use consumption means to support or oppose enterprises which shoulder marketing ethics positively or negatively<sup>[6]</sup>. When companies adopt positive marketing ethics behaviors, it will indeed increase consumers' purchase intention; while consumers know negative reports about corporate marketing ethics behaviors, it will obviously reduce the purchase intention.

### **Regulation of consumers' personality traits**

While introducing analysis methods of regulating effects, Wen ect.(2005) pointed out that grouping regression analysis should be done when regulating variables were categorical variables and explanatory variables were continuous variables<sup>[6]</sup>. In hypothesis H3, the explanatory variable of consumer evaluation is a continuous variable, regulating variables as education level and income level are categorical variables, so when validating the regulating effect we should take grouping regression method to analyze samples of different groups such as education levels and income levels testing the impact that consumer evaluation has on consumers' purchase intention respectively. When carrying out inspection to different groups, we use SPSS 17.0 statistical software for hierarchical regression analysis, putting the control variable into the regression equation by the first step, then we use the explanatory variables, to test the main effect of explanatory variables.

### **Regulation of education levels.**

It shows the main results of regression analysis for samples of different educated-level groups on TABLE 4. In middle and high school group, the regression model explains 81.1% of the variance of purchase intention (F=483.998, p<0.001); in group of university, it explains 87.7% of the variance(F=832.355, p<0.001); in the graduate group, it explains 91.6% of the variance (F=190.147, p<0.001), indicating that the effects of these two models are both ideal. After adding consumer evaluation to regression,the capacity of the three groups to explain the variance on purchase intention increased by 79.8%, 84.7% and 84.4% respectively.

In the model above, the ability of consumer evaluation to explain purchase intention apparently has differences, the explanatory capacity of variance (respectively 91.6% and 87.7%) of consumer evaluation in graduate group and university group is significantly greater than in middle school and high school group (81.1 %).

**TABLE 4 : Regulatory effect of education levels**

	<b>Purchase Intention</b>		
	<b>Middle and high school</b>	<b>University</b>	<b>Graduate</b>
sample size (N)	538	559	88
First step: control variables			
Explanation variable R <sup>2</sup> of the model	0.014	0.03	0.072
Second step: explanatory variable			
The standardized regression coefficient of explanatory variables	2.489*	2.601*	2.882*
F value of the model	483.998*	832.355*	090.145*
Explanation variable R <sup>2</sup> of the model	0.812	0.878	0.918
The variance contribution of explanatory variables	0.797	0.846	0.845

\*p&lt;0.001

The results in TABLE 4 also shows that, in the three samples, consumer evaluation has a significant positive effect on the purchase intention, standardized regression coefficients are 2.489 (p<0.001), 2.601 (p<0.001) and 2.882 (p<0.001). Obviously, standardized regression coefficient of graduate and university group is bigger than that of middle school and high school group. It shows that, as the education level improves, consumers' purchase intention increases markedly, the education level of consumers has a regulatory role on consumer response, highly educated consumers show greater responsiveness to marketing ethics behaviors of food companies.

#### Regulation of income levels

TABLE 5 shows the main results of regression analysis of different income levels. In the group whose monthly income is below ¥3000, the regression model explains 76.5% of the variance of purchase intention totally (F=551.602, p<0.001); in group over ¥3000, it explains 82.7% of the variance of purchase intention totally, which suggest that both models have ideal effects. After adding consumer evaluation to the regression equation, the explanatory capacity of the two models to explain the variance on purchase intention increased by 73.8% and 78%.

In the model above, the explanatory capacity of consumer evaluation on purchase intention has some evident differences, of which the explanatory capacity of variance of consumer evaluation for the group whose monthly income is over ¥3000 (82.7%) is higher than the group whose monthly income is below ¥3000 (76.5%). The results also showed that consumer evaluation has a significant positive effect on purchase intention in two samples, standardized regression coefficients are 2.332 (p<0.001) and 2.582 (p<0.001). Clearly, the standardized regression coefficient of consumer evaluation of the group over ¥3000 is less than the group below ¥3000, which suggests that with the increase of income levels consumers' purchase intention increases distinctly, consumers' income levels have a moderating effect on consumer response, consumers of high income levels respond to marketing ethics behaviors of food companies more easily.

**TABLE 5 : Regulatory effect of personal monthly income**

	<b>Purchase Intention</b>	
	<b>Bellow ¥3000</b>	<b>Above ¥3000</b>
sample size (N)	810	375
<b>First step: control variables</b>		
Explanation variable R <sup>2</sup> of the model	0.026	0.048
<b>Second step: explanatory variable</b>		
The standardized regression coefficient of explanatory variables	2.332*	2.582*
F value of the model	551.602*	374.314*
Explanation variable R <sup>2</sup> of the model	0.766	0.826
The variance contribution of explanatory variables	0.739	0.79

\*p&lt;0.001

#### RESEARCH CONCLUSION

The article has studied corporate marketing ethics from the consumers' perspective, inspected consumers' evaluation on marketing ethics of food companies, analyzed the relationship between marketing ethics of food companies and consumer response, the following main research conclusions is obtained:

Firstly, consumers have obviously different evaluation in different marketing ethics of food companies. They evaluate significantly more highly for food companies which can ensure the marketing ethics than those have safety issues. Ensuring food safety will have a positive impact on consumers to make evaluation of corporate marketing ethics while the occurrence of food safety issues will lead consumers to make negative evaluations of corporate marketing ethics. Similarly, consumers evaluate marketing ethics of enterprises engaged in charitable behaviors significantly higher than companies not engaged in charitable behaviors, and when food companies actively engage in charitable behaviors, consumers' evaluation of corporate marketing ethics will increase. Meanwhile, food safety and charitable behaviors, companies engaging in have significant interaction effects, the effects of charitable behaviors vary depending on different food security situations. When companies can guarantee food safety, engaging in charitable behaviors will get higher consumer evaluation; whereas, when companies have food safety issues, consumer evaluation will see a significant decline though companies engage in charitable behaviors actively. Charitable behaviors can not eliminate negative evaluations made by consumers due to food safety issues.

Secondly, Companies undertake marketing ethics actively has a positive impact on consumers' purchase intention. Consumers are willing to use consumption means to support or oppose companies bearing marketing ethics positively or negatively. It does increase consumers' purchase intention when companies take active marketing ethics behaviors; but their purchase intention will be significantly reduced when they know negative reports of companies' marketing ethics. Consumers who evaluate more highly of food companies' marketing ethics respond more actively to it.

Thirdly, there is clear difference to the response degree of corporate marketing ethics of different types of consumers. Different demographic characteristics as consumers' education levels, personal monthly incomes differences have regulatory effect on consumers' purchase intention. The higher the education levels are, the higher the incomes and the more economically developed the living places are, and the higher the response degree of consumers on food companies' marketing ethics. In response to conclusions above, the article believes that food companies need to focus on consumers' evaluation of corporate marketing ethics, and handle properly the relations of marketing ethics in different dimensions such as ensuring food safety and engaging in charitable behaviors. In the basis of doing basic corporate marketing ethics----ensuring food safety, corporate marketing ethics activities of higher level, such as active charitable behaviors, can be carried out; which should not be upside down, ignoring food safety, blindly carry out activities as charitable behaviors etc. Meanwhile, food companies should actively follow consumers' response to marketing ethics and carry out marketing ethics activities reasonably combined with consumers' characteristics and types which can actually meet consumers' demands and improve enterprises' performance.

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