

Framing Effect: How the Presentation of Information Influences Consumers' Decision Making

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Abstract:

The purpose of the study is to research how the presentation of choices influences consumers' decision making. The paper aims to research which type of presentation are more affected in consumers' decision making. The ordinary least squares regression analysis is used to explore the relationship between the presentation of choices and the degree of intention to buy the product. The experiment finds that when the information is unclear, people's degree of willingness is in medium to low. When the presentation is negative, people's degree of willingness is lower. When it is positive, people's degree of intention to buy the product is higher. The study suggests the way that different presentation of choices influence consumers' decision making and give some suggests to consumers and businesses.

Keywords: Framing, Information, Consumers

1 Introduction

In order to achieve higher profits, some businesses will use expression inducements in offering choices to consumers, so consumer's perception and purchase intention could be influenced by the framing of the product even when the actual content is the same. Thus, it is very important to know how the presentation of information can influence consumers' decisions.

The purpose of this paper is to find the link between presentation of information and consumers' decision making. Therefore, we propose the following hypotheses:

H0: consumers' decision making will not affected by the presentation of choices

H1: consumers' decision making will affected by the presentation of choices

The framing effect is a cognitive bias in which peo-

ple decide between options based on whether the options are presented with positive or negative connotations (Plous and Scot, 1993). Recent evidence suggests that the advertisement has an impact on consumers purchasing decision. It is also mentioned that the form of advertising can greatly influence people's decision making, such as duration, and advertisement will be able to change the opinion of the customers about the product (Kumar and Raju, 2013). Similarly, different presentation of choices will also has different impact on consumers' decision making. The presentation of advertising and selection have similarities, both having guidance and influencing customers decision making, but most researchers focus on advertisement, instead of presentation of choices. The presentation of choices is ubiquitous in people's lives, making it easy to be overlooked. Achar et al.(2016) present an integrated view of the current literature on how emotions – both related

and unrelated to the decision at hand, play an important role in shaping consumer decision-making. This research explains the impact and role of the emotions in decision making. Cassotti et al. (2012) also suggest that positive or negative emotional background has potential influence on framing effect. However, this only shows that people are emotionally induced to influence their choices, not that people's different descriptions of an objectively identical problem lead to different decisions.

In this paper, I study when the description of choices is changed, the changes in consumers' decision making. And I also study what kind of presentation of choices will make consumers more willing to buy this product or less willing to buy it. Finally, the research shows that when the product information is unclear, people usually choose to remain neutral. Their choices will be relatively conservative. When the meaning of the information is exactly the same but opposite, most of the people choose the positive one

The rest of the article proceeds as follows: section 2 methodology, section 3 is result, section 4 is discussion and section 5 provide conclusion.

2 Methodology

2.1 Experiment design

The research method is online survey. I sent 3 different questionnaires which have different questions to three groups respectively. In the questions, I changed the presentation of a healthy type of milk and ask participants for what extent they will buy the milk. The degree of intention increases in order from 1 to 5, 1 represents very unwilling and 5 represents very willing. Participants need to choose the number which represents their willingness of buying the milk. The question for control group is that you are currently "losing weight" and need to buy milk. There is a healthy type of milk available now (with unknown fat content), to what extent would you buy it? For treatment group 1, the presentation of the milk is 25% fat content, that for treatment group 2 is 75% fat free. I finally collect 100 respondents, but there are 90 respondents are effective after deleting the respondents who used less than 10 seconds, which I use to study in this paper.

2.2 Data

In order to make the sample more representative, the method of collecting data is simple random sampling. The data used in this research is collected in July, 2024. The sample of this experiment is teenagers aged 13 to 19 in Guangzhou, China. The sample size is 90, who are all in-

terested in losing weight. In order to get more accurate result, the control variables to these teenagers are that their frequency of drinking milk is every day or every week and they are all care about or very care about their health. When 90 teenagers divided in to three groups, it is also random. The three groups include one control group and two treatment groups.

2.3 Descriptive statistics

The descriptive statistics for each of the 3 variables are shown in the Table 1. The mean of 75% fat free is larger than the 25% fat content, which means the number of teenagers who has higher degree of intention to buy the milk that represented by 75% fat free is more than that of teenagers who are willing to buy the milk that represented by 25% fat content.

2.4 Model specification

The ordinary least squares regression analysis is used to investigate the link between the two different presentations of choices and people's decision making as equation 1:

$$y = \alpha + \beta X + \epsilon \quad \text{Eq.1}$$

Where y is dependent variable meaning the willingness of buying, X is a vector of independent variables including treatment 1 (25% fat content) and treatment 2 (75% fat reduction), α is content, β is the vector of coefficients of independent variables, and ϵ is error term.

3 Result

The structure of observations of control group is in Figure 1, it shows that the percentage of the teenagers who choose 2 and 3 is larger, 33.3% and 36.67% respectively. In Figure 2, we can know that when subjects receive the information which the milk has 25% fat content, more than 50% of people choose 1 and 2. In Figure 3, we can see that when the presentation of the milk is 75% fat free, most of the people choose 3, 4 and 5, the percentage is 23.33%, 26.67% and 26.67% respectively.

The Table 2 is the result of regression which shows whether the impact of these two types of presentation is significantly. The column (1) shows that there is a significantly negative relationship between treatment group 1 (25% fat content) and degree of intention. Compared with the control group, the effect of treatment group 1 could decrease the degree of intention in about 68%. The column (2) illustrates that there is a significantly positive relationship between treatment group 2 (75% fat free) and degree of intention. Similarly, the effect of treatment group 2 could increase the degree of intention in around

76%. The column (3) shows when the treatment 1 and treatment 2 appear at the same time, there is a negative relationship between treatment 1 (25% fat content) and the degree of intention, and positive relationship between

treatment 2 (75% fat free). The effect of 75% is significantly positive, because the coefficient is 0.567. However, 25% is insignificant, as the coefficient is -0.400. Thus, the 75% fat free is more affected.

Table 1 Summary Statistics

Variable	Obs	Mean	Std. dev.	Min	Max
<i>Whole sample</i>					
Degree of intention	90	3.022	1.245	1	5
treatment1	90	0.333	0.474	0	1
treatment2	90	0.333	0.474	0	1
<i>Treatment group 1</i>					
Degree of intention	30	2.567	1.331	1	5
<i>Treatment group 2</i>					
Degree of intention	30	3.533	1.196	1	5

Table 2 Regression Analysis

Dependent variable: Degree of intention			
	(1)	(2)	(3)
25% Fat Content	-0.683** (0.270)		-0.400 (0.308)
75% Fat Reduction		0.767*** (0.268)	0.567* (0.308)
N	90	90	90
R-sq	0.068	0.085	0.103

Note: Standard errors in parentheses; * p<0.10, ** p<0.05, *** p<0.01

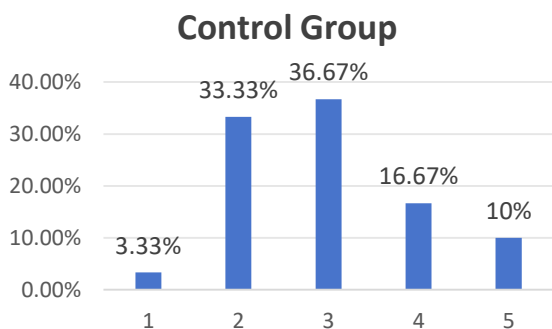


Figure 1 The milk without any information

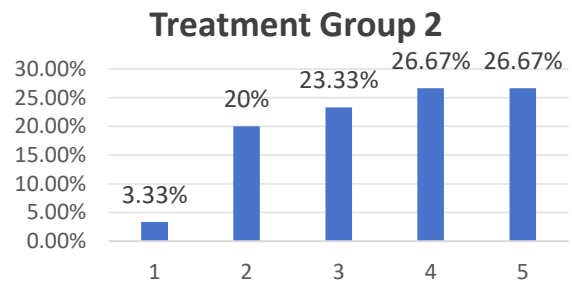


Figure 2 The milk with 25% fat content

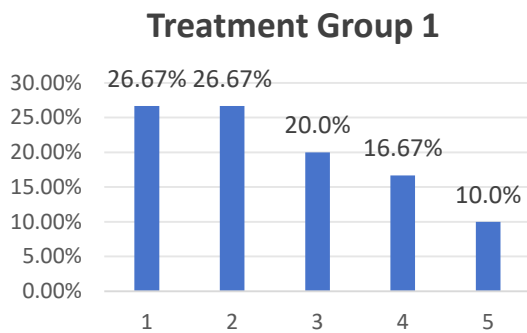


Figure 3 The milk with 75% fat free

4. Discussion and conclusion

This paper research how the presentation of choices influences consumers' decision making. According to the result, I found that consumers will choose to remain neutral when the product information is unclear. What's more, consumers are more willing to receive the positive information instead of negative. The above is the decision-making situation of consumers when choices appear separately. When the positive one and negative one appears at the same time, people are more willing to choose the positive one. Thus, although the meaning of the information is basically the same, most consumers will also be influenced by the presentation of choices. The possible reason could be that people tend to prefer choices with positive connotations. This is a cognitive bias. Individuals create their own "subjective reality" from their perception of the input. An individual's construction of reality, not the objective input, may dictate their behavior in the world. Thus, cognitive biases may sometimes lead to perceptual distortion, inaccurate judgment, illogical interpretation, and irrationality. (Kahneman and Tversky, 1972; Baron, 2007; Ariely, 2008)

In this experiment, there is also some limitation. First, with fully skimmed milk available, consumers' decision making maybe affected. People may think choosing milk which is 75% fat reduction is not a good choice, their degree of intention may low. Second, the result is not very general. Because the experiment only uses one product to test, it may lead to the result not very accurate. Last, because of the research method is the online survey, people just answer the question on the questionnaires the

result may can't reflect the real situation very realistically. Therefore, if someone wants to conduct this experiment again, he or she can test it with different product, not just food. And it's best to conduct investigation in real life.

This paper has critically discussed the way presentation of choices influences the consumers decision making. In summary, the positive presentation of choices are more affected in consumers' decision making. This research can help businesses to make good strategy to sell products and attract more customers to buy the product, it can also help businesses to gain more profit. For customers, they can see the essence of the product and make better purchases. What's more, this is also a good method to help increase the consumption, thus increase the GDP. Next, researchers can continue to explore under what circumstances negative presentation are more influential than positive presentation.

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