The Relationship between Consumer Elaboration and Decision Making

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ABSTRACT

In three experiments, this article examines the effects of inconsistent product attribute information on consumer elaboration and decision making. That is, when product attribute goals are inconsistent with more product attribute goals (new information), whether consumer can create elaboration, as well as strengthen brand attitude and attribute attraction.

The empirical results show that the greater the number of new information is the higher consumer elaboration is, high prior knowledge with new information will result a higher degree of elaboration and will help to strengthen the brand attitude. Low prior knowledge’s elaboration to new information was lower but will not affect brand attitude, and the greater the differences between new information attribute and target-oriented, the lower elaboration is.

Keywords: Elaboration Model, Product Attribute, Brand Attitude.

INTRODUCTION

Background

During consumer’s purchase decision making process, they will through various channels to collect the information. However, how the consumers elaborate from information chosen? The answer will help the seller to communicate effectively with the target market. Clarify this basic concept will be helpful to understand consumer purchase decision making assessment process.

Before consumers purchase products, they may have their default product attribute requirements. For example, when they want to buy a digital camera, they will consider how much the pixel is, and these are the original attribute target. Actually when we read the product packaging, or browse the Web Information, we may see a variety of attribute information, and related statements of description. At this point, when the messages exceed the attribute target, how will the consumers deal with these information and thus increase their elaboration?

According to Elaboration Likelihood Model (ELM) when consumers have the ability and motivation to deal with the information, their elaboration probabilities will be higher and persuasion will be produced through Central Route. On the contrary, lower will be produced through the Peripheral Route (Petty, & Cacioppo, 1983). In addition, compared with a relatively expensive product, the consumer’s elaboration possibility is also higher. Due to higher degree of importance of this purchase, consumers have motivation to take the Central Route (Bitner & Obermiller, 1985). In the Central Route, attitude’s formation and change are through careful thoughts and integration of the information on the attitude target. In the Peripheral Route, attitude’s formation and change are through positive thinking of target and attribute, but by cognitive shortcuts to think about target object’s positive and negative cues (Bitner & Obermiller, 1985).

The above topics are very important in practice because when consumers see product information
they may have conflict evaluation and thus have an impact on brand attitudes and product attribute attraction. In theory, literature views are different. One school believed when faced with inconsistent information, all information set would be elaborated and customers would process more with consistent information (Maheswaran & Chaiken, 1991). Therefore, elaboration will enhance the strength of attitude. Another school believed that the inconsistency will result in the evaluation elements conflict (Bargh et al., 1992; Thompson, et al., 1995). This conflict will reduce the predictive value of attitude (Conner, et al., 1996; Moore, 1980). The study suggests that we can have further analysis on these opposing points of view, and use digital cameras as the experiment product.

Research Purposes

The research purposes are as follows: (1) When consumers facing new information, whether they would increase their elaboration. (2) After new information increased their elaboration, whether it would further affect their brand attitude. (3) After new information increased their elaboration, whether it would strengthen their attribute attractiveness.

LITERATURE REVIEW

Inconsistent Elaboration

Many studies have pointed out that the difference in congruity will affect product evaluation and product elaboration (Campbell, & Goodstein, 2001; Houston, Childers, & Heckler, 1987; Myers-Levy & Tybout, 1989; Ozanne, Brucks, & Grewal, 1992; Peracchio & Tybout, 1996; Sujan, 1985). Modest differences in product category schema arouse more attention than consistent or entirely inconsistent products, and they even received better evaluation (Meyer-Levy & Tybout, 1989). Hastie (1980) pointed out, people would automatically rationalize the inconsistency in order to achieve an integrated evaluation. When faced with inconsistent, they will increase the level of process and think carefully about the positive and negative information correlation in order to create integrated evaluation (Maheswaran & Chaiken, 1991). For example, the inconsistency of attribute information may cause blended elaboration and are subject influence of blended motivation (Sengupta, & Johar, 2002). This article believed inconsistent elaboration can also be applied to both the original attribute target and integrative attribute. When consumers face new attribute information they would elaborate of such inconsistencies (as the attribute they think may be different from actual attribute resulting in inconsistent).

Need for Cognitive

Whether after elaboration stimulation, customer will be interfered by individual long-term elaboration tendency (Priester, Godek, Nayakankuppum, & Park, 2004)? According to Cacioppo & Petty (1982) whether individuals will participate in cognitive activities and the desire to enjoy cognitive activity are different. Such individual cognitive motivation, Cohen (1955, 1957) called need for cognitive. Need for cognitive can be used to measure this long-term tendencies (Cacioppo, Petty, 1982; Cacioppo, the Pretty, Feinstein, & Jarvis, 1996 ). Study pointed out that individuals with high need for cognitive basically like elaboration, and even elaborate less coherent information (Cacioppo, Petty, Kao, & Rodriguez, 1986). On the contrary, individuals with low need for cognitive dislike elaboration, they only elaborate information under stimulated motivation. In short, the higher of individual’s need for cognitive, the stronger their tendency for elaboration. Hypothesis 1: The greater the number of new information, the higher consumer’s elaboration.
Prior Knowledge

Previous studies pointed out that high prior knowledge may hinder the information search (Wood & Lynch, JR, 2002), resulting in poor decision making quality, because high prior knowledge people easily be overconfident (see Keren, 1987), or have Feeling-of-knowing (Hart, 1965), that they already holds the correct answer. Therefore, when lack of new information or do not pay attention to the new information, high prior knowledge will think of the past solutions without re-thinking of a new decision making. Suppose, however, we provide consumers with richer information? Past studies have found that if the decision makers feel that the attribute is important, it will affect their choice (Payne, Bettman, & Johnson, 1988). Consumers will base past knowledge to determine the meaning of attribute, and, accordingly, use it to decide the attribute’s importance (Hasen & Helgeson, 2001). This article believed prior knowledge had the experience to determine the new information, increase the elaboration of the new information, and thus strengthen the brand attitude.

**Hypothesis 2:** The high prior knowledge elaborates more for new information and will help to strengthen the brand attitude. Low prior knowledge elaborates less for new information but does not affect brand attitude.

Attribute-compatibility (compatibility)

Attribute-compatibility refers to the relations between nature of the selected task and attribute’s types (Nowlis & Simonson, 1997). Later it extended to the relationship between selected task’s nature and decision making target (target-compatibility). When the task is to differentiate options, the most important attribute received the greatest attention (Fisher, Carmon, Ariely, & Zauberman, 1999). Chernev (2004) explored the compatibility between the consumer targets and attribute’s characteristics (target-Attribute compatibility). This target was determined not by the particular choice task (e.g., differentiation versus equalization options), but the consumer's self-regulatory mechanisms.

Management-oriented was divided into two in the literature: enhanced focus to achieve positive results; defensive focus to minimize negative outcomes (Higgins, 1997). The management-oriented is based on people tend to be happy and avoid pain (Higgins, 1997). Take to enhanced focus will maximize the benefits and take the defensive focus will minimize the loss. Chernev (2004) took the concept of regulatory fit and believed that the method to pursuit of specific targets should work with the management focus (Higgins, 2000). Target attribute-compatibility was assumed to be applied with regulatory fit to make selection, i.e., under this assumption, consumers will according to the attribute importance to have decision making. Aaker and Lee (2001) pointed out in their study, when management focus consistent with of the information, if attitude change and memories are relatively higher, it has a more persuasive effect. This article would like to explore whether new information changed the target rather than target decided information’s weight. Therefore, when the new information attribute matched with consumer management focus, it was more likely to cause the consumer’s attention and improve their elaboration of the information.

**Hypothesis 3:** When the new information attribute is closer to target-oriented, the higher elaboration extent. The greater the differences between new information attribute and target-oriented, the lower elaboration extent is.
EXPERIMENT: NEW INFORMATION QUANTITY ON THE DEGREE OF ELABORATION

Design and Process

In the study, we invited 120 college students who volunteered to participate in the experiment. Subjects were randomly assigned to two groups: high new information group and low new information group. We adopted 2 (New Information extent: high/low) × 2 (need for cognition: high/low) as experimental design. We used group ANOVA for analysis.

First of all, subjects were informed the experiment was to “understand consumer’s decision making in buying a digital camera,” and subjects were requested to fill out the “Need for Cognitive Table”. We asked the subjects to imagine that they want to buy a digital camera, and write down “product attributes” they would considered. This was known as the original consumer attribute target, and then they were given a set of "Complete Attribute Information" which was called the complete attribute target and to evaluate their own “level of understanding” on digital camera.

Later, subjects wrote down after they read Complete Attribute Information, “the product attributes they remembered” and their "related ideas" (Sengupta, & Johar, 2002). The ideas were agreed to be encoded by two independent coders, and discuss the disagreement.

Operation test and irritants New Information Quantity

For the high-information group, the study provides more complete attribute information: a total of 20 attributes. For the low-information group, the study provides less complete attribute information: a total of five attributes. Subjects had t test for self-assessment of their understanding of the camera and whether test operation was successful. The results showed that high-information group’s understanding of the camera was significantly higher than low-information group (t = 4.23, p <.05), which showed the research operation was successful. When the higher the degree of new information is the lower level of understanding of the subjects of the product.

Need for Cognitive

We adopted Cacioppo, Petty, & Kao, (1984) revised Need for Cognitive Table, a total of 18 questions were ask. With reference to Sadowski, (1993) 9 points Likert scale to measure need for cognitive questions, from strongly disagree (-4) to strongly agree (+4), the higher the score, the higher the need for cognition. The results of the study showed in high-information group’s cognitive needs average was 3.34, the low-information group’s cognitive needs average was 3.54. The t test results showed there was no significant difference (p> .05). The study further divided the need for cognitive of each group’s median area into a high need for cognition and low need for cognition groups.

Hypothesis Testing

In the study we adopted the t-test to test hypothesis 1 and from related number of ideas to present the elaboration extent. The number of recognition was obtained from consensus reached by researchers’ coding and discussion. The idea category was divided into 15 categories. The experimental results indicate that the related idea produced by high-information group was more than low-information group. The average numbers of related ideas high-information group produced was 9.36, and the average numbers of related ideas high-information group produced was 4.87. There was a statistically significant difference (t = 6.53, p <.05), which showed high-information group subject’s elaboration was higher. The result was also supported in the control of need for cognition degree, i.e., need for cognition difference
did not affect the results of this inference. Therefore, if Hypothesis1 is supported, the greater the number of new information is the higher consumer elaboration is.

**EXPERIMENT: MODERATING EFFECT OF THE PRIOR KNOWLEDGE**

**Design and Process**

120 college students participated in 2 (New Information extent: high/low) × 2 (Prior knowledge: high/low) experiment. We adopted inner group and group ANOVA analysis. At the same time we operate new information and the prior knowledge extent as shown in Figure. Subjects first read the information booklet to operate the degree of prior knowledge and then filled their brand preference.

We asked the subjects to imagine buying a digital camera and wrote down the product attribute target they considered. This was called the consumer primitive attribute target, and then we gave them a complete attribute targets to evaluate how they understood digital camera. Subjects wrote down attributes they remembered after reading complete attributes (Sengupta, & Johar, 2002) as well as their related idea. The idea agreement was encoded by two independent coders and discussed their disagreements.

Finally, we asked the subjects’ attitude of the brand. Their attitude toward the brand is based on four items of the semantic differential measure, that is divided into good/bad, not likable/likable, undesirable/desirable, useless/useful), from -4 to +4 as the level of differences.

**Figure: Experiment**

**Operation and Stimuli New Information Quantity**

All subjects were told the experimental purpose was to "understand consumer’s decision making in purchasing digital camera". First we requested the subjects to fill out the "Need for Cognitive Table” followed by "product attribute" (original attribute targets) they would considered, and we gave the subject a set of “complete attribute information” (complete attribute targets ). In the study we provided more complete attribute information to high-information group, a total of 20 of attributes. As for the low-information group, the study provided less complete attribute information, a total of five attributes. Finally, we asked the subjects to evaluate their own level of understanding to the digital cameras.

**Prior Knowledge Degree:**

Subjects read the information booklet. Those read the digital camera function knowledge was designated as high prior knowledge and read the computer functional knowledge was designated as low prior knowledge (Wood & Lynch, JR, 2002). That is, Group A subjects read a “digital camera attribute information booklet" and Group B subjects read the “computer functional knowledge booklet”.
Related Idea and Brand Attitude:

After reading complete attribute information, subjects wrote down “the product attributes they remembered” and “related ideas”. “Related Ideas” are encoded by two independent coders, and discussed the disagreements. Finally, subjects filled out the "brand attitude" scale.

Operation Test

We assessed the appropriateness of operational new information number. The higher new information the lower their product knowledge is. We adopted original attribute and complete attribute understanding for t-test. Experimental results showed that subjects of the high New Information Group’s understanding of the camera was significantly higher than low New Information Group’s (t = 3.43, p <.05), which showed the study operation was success. When the new information was higher, the subject’s level of understanding of the product was lower.

As to product’s prior knowledge aspect, through operation results, high product prior knowledge group read the camera related information, and therefore subjects’ elaboration of the product attribute projects were more than low product prior knowledge group (t = 5.73, p <.05) which showed the research operation was successful. When subject contacted with the related camera information they had a higher degree of product knowledge.

Hypothesis Test

In the study, we adopted the t-test to test Hypothesis 2 and from related idea’s numbers to present the elaboration extent. The identification of this number is encoded with discussion and consensus reached by the researchers. The idea category was divided into 15 categories. The experimental results indicated that the High Information Group subject’s related ideas were more than Low Information Group’s.

The average idea numbers of High Information Group subject’s related ideas was 8.33 and the average idea numbers of Law Information Group subject’s related ideas was 4.26. There was a statistically significant difference (t = 5.45, p <.05), which showed the New Information Group’s elaboration was higher.

The study is further to explore whether the product prior knowledge will produce a moderating effect to the above relationship. The results of the study showed if subjects of high prior knowledge group received high new information, compared with low prior knowledge group received low new information, they would have greater elaboration level to product attribute (t = 7.63, p <.05) and was able to significantly strengthen the brand attitude (t = 9.32, p <.05). In addition, for subjects of low prior knowledge group, if we provided a high degree of new information, they would also generate the higher the degree of elaboration, but their elaboration extent would not higher than high prior knowledge and high new information group (t = 5.49, p <.05), but their brand attitude was not very different. Therefore, Hypothesis 2 was supported. High prior knowledge with new information will result a higher degree of elaboration and will help to strengthen the brand attitude. Low prior knowledge’s elaboration to new information was lower but will not affect brand attitude.
EXPERIMENT: TARGET-ATTRIBUTE COMPATIBILITY EFFECT

Design and Process

Experiment adopted 2 (New Information extent: high/low) × 2 (compatibility of new information attribute and target-oriented: high/low) inner groups ANOVA to analyze. Total 80 students volunteered to participate in the experiment. First of all, subjects filled out the "Need for Cognitive Table", then the subjects were assigned goal-orientation priming task and were evenly divided into four groups. Each subject was given a set of "attribute information" advertisement: Group A: entertainment attributes; Group B: utilitarian attributes; Group C: performance attributes; Group D: reliable attributes. Subjects were asked to imagine buying a digital camera and write down the product attribute target they considered. This was known as the original consumer attribute target. After given a complete attribute target, subjects evaluated their own level of understanding for digital cameras, as well as evaluated the attractiveness of the new attributes. Finally, subjects wrote down attributes they remembered after reading the complete attribute information (Sengupta, & Johar, 2002), as well as their related ideas. The ideas were encoded by two independent coders and they discussed the disagreement.

Operation and Stimuli

1. New Information Quantity: All subjects were told the experiment was aimed at understanding their opinion to digital cameras. Given subjects a complete attribute information to read and adopted the gap between the number of the original attribute information and complete attribute information to operate the degree of new information.

2. Target-oriented: Reported duty and obligation (e.g., Higgins, Roney, Crowe, & Hymes, 1994). Ask the subjects to write down their expectations and desire or duty and obligation. The former was used to induce enhance-oriented, the latter was used to induce defense-oriented (Higgins, 1997).

3. Target-oriented and new information attribute compatibility extent: computing target-oriented and the corresponding number of attributes, and using corresponding attribute numbers’ median to divide high degree of compatibility and low degree of compatibility.

Operation Test New Information Quantity:

Assess the appropriateness of number of new information operated, the higher new information the lower of product knowledge. Adopted t test to test gap between the number of the original attribute and complete attribute and experimental results showed that High New Information Group subject’s understanding of the camera was significantly higher than the low New Information Group (t = 4.29, p <.05) , which showed the study’s operation was successful. When the New Information was higher the subject’s understanding of the product was lower.

New information attributes and target-oriented compatibility

In the study, we matched the attributes conveyed by ads with consumer purchase target, such as if given enhanced focus and watched the entertainment attribute or performance attribute advertisement which represent information attribute and target were compatible; if given the defensive focus and watched the utilitarian attribute or reliability attribute advertisement also represented information attribute and target were compatible, on the contrary, the target was incompatible. If compatibility was higher, attractiveness should be also higher. Operational test results found that when the new information and target’s compatibility was higher, the target attractiveness evaluation score would be higher than...
attractiveness score of the group that new information and target was incompatible \( (t = 3.98, p < .05) \), which showed the operation was successful.

**Hypothesis Test**

In the study, we adopted t-test to test Hypothesis 3 and from related number of ideas to present the elaboration extent. The experimental results indicated that related number of ideas produced by High Information Group’s subjects was more than Low Information Group. The average related number of ideas of High Information Group was 7.83 and the average related number of ideas of Low Information Group was 4.69. There was a statistically significant difference \( (t = 4.35, p < .05) \) which means High Information Group’s subjects had higher elaboration degree.

The study was to further explore new attribute information-target compatibility would affect the above relationship regulatory effect. From the results of the study we learned compared subjects of high target attribute compatibility group with subjects of low target attribute compatibility group, they had a greater degree of elaboration on product attributes \( (t = 8.33, p < .05) \). In addition, the higher degree of product new information, the above condition not only exist but had more significant elaboration difference \( (t = 15.48, p < .05) \). Therefore, if Hypothesis 3 was supported, when new information attribute was more similar to the target-oriented, a higher degree of elaboration. The greater the differences between new information attribute and target-oriented, the lower elaboration is.

**CONCLUSION**

The study investigated the impact of the information numbers for consumer elaboration degree in order to understand when the consumers purchased product, their established product attribute requirements, and the importance they attached to product attributes. The study found that in established product attribute target, when provided consumers with more product attribute information, established product attribute target and the other product of the attribute target’s difference (new information) will cause consumers to increase their elaboration, enhance and strengthen the brand attitude and attribute attractive elaboration extent. Overall speaking, the new information extent has the main effect, need for cognitive has main effect, interaction effect of new information degree and need for cognitive. Implicitly it provided more attribute information which help to stimulate the elaboration of the consumer on the product.

In addition, consumer's prior knowledge has main effect on elaboration extent, and new information and prior knowledge has interaction effect. It showed not only the level of new information would lead to elaboration, prior knowledge will adjust the level of new information can lead to the elaboration. As to high prior knowledge, new information would more likely cause elaboration. As to low prior knowledge, new information is less likely to cause elaboration. Since new information (mostly positive) would have more of elaboration and thus strengthen the brand attitude.

Finally, new information attribute and target-oriented compatibility have main effect on consumer product elaboration extent. New information degree and attribute target compatibility have an interaction effect. Not only the new information can lead to elaboration, target-attribute compatibility will also affect the elaboration degree. When the higher target-attribute compatibility, the greater influence of new information on elaboration. Therefore we should aim at customer target-oriented to adjust the product attributes provided to customers.
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