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# The Influence of Consumer-Based Mechanism on CSR Purchasing: Role of Assortment Structure

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**Abstract:** We investigated the cognitive effects of assortment structures on consumer purchases based on CSR information. This research work studies the effects of two prevalent assortment structures that are based on benefits, that provide consumers with easily obtainable CSR information, and that increase their purchases. The result confirms the perceived similarity between a target product and a product's CSR image projected in the media. Clarifying this causal relationship, a benefit-based assortment structure is shown to have a significant effect on the global mindset of consumers, who probably find a similarity between the stimulus and CSR. In contrast, an attribute-based assortment structure can stimulate the local mindset of consumers, who perhaps find more differences between the stimulus and CSR. These findings show the impact of assortment structures on consumer choice and propose the use of strategic assortment structure to enhance brand evaluation.

Keywords: assortment structure, perceived similarity, corporate social responsibility, consumer decision making, global and local mindsets

## 1. INTRODUCTION

With environmental pollution, product quality, and other social problems on the rise, consumers have become increasingly concerned about the moral and social performance of corporations. Research in this area, which has focused on Corporate Social Responsibility (CSR), shows that CSR behavior improves corporations' reputation, image, and evaluation <sup>[1]</sup>. Therefore, CSR has become an important part of corporate strategy. However, consumer response to CSR behavior is not strong. Survey data show that consumers have a limited perception of CSR, and only 21% of consumers are willing to buy based on CSR <sup>[2]</sup>. Therefore, finding a way to stimulate consumers' awareness of CSR has become an important task for companies.

### 1.1 The theory basis

Many previous works have studied consumers' internal conception of CSR. Most focus on the following corporate and consumer factors: at the firm level, the factors are CSR characteristics, the reputation of the corporation, and the price of the product <sup>[3]</sup>. At the consumer level, the factors are perception of information, a consumer's values <sup>[4]</sup>, the matches among the corporation, a corporation's social responsibility, its behavior toward consumers, and the consistency between the enterprise's brand and its socially responsible efforts. Scholars have generally ignored the functions of consumers' mode concerning CSR information. Recent researchers have taken the stance that social judgment depends on people's cognition of social processes <sup>[5]</sup>. Macrae (2000) suggested that people evaluate things based on their specific backgrounds, and that information can be divided into a priori knowledge and instant information. A priori knowledge is stored in one's memory; it is information related to a product or brand, such as a CSR image. Consumers also receive instant product or brand information at decision-making sites.

Product assortment structure is one of the most important factors influencing consumer decision-making, and retailers often rank products by attributes or benefits <sup>[6]</sup>. For example, toothpaste is categorized by type:

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paste, gel, striped gel, and by its benefits: whitening, fresh tone, sensitivity prevention, and so on. Previous studies focused on the impact of positioning these two product elements based on their usage. Lamberton et al. (2013) argue that these two types of assortment structure affect consumers' collective mindsets and their judgments about a product. Consumers, without being given special information, are asked to choose products based on their benefits (versus attributes), to pick their favorite product, and initiate a global (versus local) consumer mindset. Consumers process information differently depending on the type of product assortment structure. Benefits-based structure are more abstract and on a generally higher level than attribute-based structure, which are more basic. This leads consumers in their follow-up tasks to process information in either a more abstract or more basic manner.

Förster and Liberman (2008) argue that people adopt different mindsets when conducting social judgments<sup>[7]</sup>. One is a global mindset, which is the processing method that individuals usually use. The individual in this mindset is more likely to see the outside world as a whole, and tends to understand and pay attention to external stimuli from a more overall visual perception or more abstract semantic concepts, so they care about the similarity between stimuli; the other is local mindset, individuals in local mindset are more likely to perceive the outside world in terms of details, tend to understand and focus on external stimuli from more partial visual perceptions or more specific semantic concepts, and thus pay more attention to the dissimilarity between stimuli<sup>[7]</sup>. For example, when a subject is asked to differentiate between two well-known television programs, those with a global mindset are more likely to point out the similarities between the two programs, while subjects with a local mindset are more likely to point out the differences. At present, the experimental initiation paradigm for individual mindset mainly includes two major directions, one is direct manipulation through psychological distance, and the other is indirect manipulation which is using a concrete context<sup>[8]</sup>. The global mindset is more likely to find the similarity between the stimuli, mainly focusing on the overall effect. Too much detailed information will increase the difficulty of selection, while the local mindset is more likely to find the dissimilarity between stimuli, and multiple choices and contrast feelings can help consumers to select satisfactory products<sup>[9]</sup>.

In previous studies, the product assortment structure will initiate different individual information processing methods<sup>[10]</sup>, while a large number of scholars have explored the impact of product assortment structure on consumer behavior<sup>[11]</sup>. The benefit-based structure will promote the increase of the perceived similarity between the target and the standard<sup>[12]</sup>, so that it will initiate the global mindset of consumer; in the contrast, the attribute-based structure will decrease the perceived similarity, and make consumers pay attention to the difference between the target and the standard, so that the local mindset will be initiated. Hence, we believe that consumer's purchases are also affected by assortment structures. Consumers with a sense of social responsibility can use information (an assortment structure) that they receive instantly to increase the positive impact of prior brand knowledge (CSR image) at the time of an initial purchase. First of all, assortment structures affect a consumer's mindset. A benefit-based assortment structure affects one's global mindset, so consumers tend to choose products similar to their CSR image and then adopt the same image, using a CSR evaluation, to choose a product. This enhances a consumer's CSR-based purchase. With an attribute-based assortment structure affecting a consumer's local mindset, more attention is paid to other details, which reduces a consumer's CSR-based purchase intention.

In addition, the present study reveals that perceived similarity between the target and the standard can be used to measure whether a person is comparing a similarity or a difference<sup>[13]</sup>. We believe that a logical relationship exists between the perceived similarity of a product assortment structure, the target (CSR product), the standard (CSR image), and a consumer's purchase, based on three CSR variables: whether the promotion is benefit- or attribute-based, whether standard awareness similarity increases or decreases, and whether a

consumer's CSR-based purchase intention is enhanced or reduced.

In this context, the study focuses on whether an assortment structure will affect consumer's purchases in a CSR context and whether there exists a mediating role. Two experiments were carried out to explore the following questions: First, does assortment structure affect consumer's purchases in a CSR context? Second, does perceived similarity play the mediating role between assortment structure and consumer's purchases in a CSR context? What kind of mindset will be started on the basis of different assortment structure? Is there any connection between perceived similarity, mindset and assortment structure. Finally, which means should a corporation use to influence the consumer's perceived similarity in a specific marketing environment.

## 2. METHOD

### 2.1 Participants and design

Eighty undergraduate students (42.5% men and 47.5% women) from a large university in Chongqing, China, participated in experiment 1. The experiment followed a two-factor mixed design, that is,  $2 \times 2$  factors, including an attribute-based assortment structure versus a benefit-based assortment structure and high CSR levels versus low CSR levels. Purchase intention is considered to be the dependent variable. Experiment 2 included 70 college students (30% male) and also followed a similar  $2 \times 2$  two-factor, mixed experiment design. Similarity between perceived CSR image and the product is the mediator variable, whereas product purchase intention is the dependent variable.

### 2.2 Procedure

Experiment 1 aims to ascertain the causal relationship between assortment structures and consumer purchases based on CSR. Adopting the Lambertson and Diehl (2013) experiment<sup>[12]</sup>, tea was selected as an experimental product. The attribute-based assortment structure includes black tea, green tea, and scented tea and the benefit-based assortment structure includes weight loss, refreshment, and immunity-improving tea. A virtual brand "A" was used to avoid brand familiarity. This has two advantages: (a) this classification has been widely researched, and (b) it allows us to conduct practical research as tea companies often use these two kinds of assortment structure for online sales. Consumers' purchases based on CSR are measured using a 7-point Likert scale (1 = highly disagree, 7 = highly agree) that includes two items: (a) "I am willing to buy company A's tea" and (b) "I am willing to recommend company A's tea to friends." To examine the task difficulty and knowledge about tea as well as to control the effect that these variables have on purchases, participants evaluated the 7-point Likert scale. The task difficulty scale includes three items: (a) "I feel that completing the product selection task is difficult," (b) "I feel that the product selection task takes a long time," and (c) "I feel that I need to think more about the product selection task." Knowledge of tea is measured using the Aaker and Williams (1998) scale<sup>[14]</sup> (1 = very unaware, 7 = very well understood). Demographic details such as gender and age of all participants were noted.

Experiment 2 follows the same procedure to find how assortment structures affect a consumer's purchase decision based on the similarity between CSR and the perceived image, depending on the medium of information.

With respect to brand influence, we choose nutrition bars as the experimental product and an attribute-based assortment structure, including fruits, chocolate, and nuts. Benefit-based measures include the promotion of growth, supplementation of energy, and burning of fat. The method propounded by Mussweiler (2001) is used to measure perceived similarity, which includes the following three items: "A company brand is a socially responsible brand," "A company nutrition bar and its corporate social responsibility image are

consistent,” and “Buying company A’s nutrition bar can support public welfare.” To control the bias on experimental results, experiment 2, like experiment 1, measures the difficulty of product selection and knowledge of nutrition bars. Subjects were asked to report gender and age information.

### 2.3 Material

In the first experiment, we describe CSR behavior as either high or low. A high-CSR individual participates in public welfare behavior actively, provides free funds and technical assistance to farmers, and sets up special monitoring departments. A low-CSR individual may have carried out some public welfare activities, but lacks attention, and his implementation often has poor results.

The second experiment describes high-CSR companies as having a long-term history of CSR, with well-established social services departments praised by the media. Projects of low-CSR companies garnered less attention, were not effectively implemented, and were questioned by the media. Twenty nonparticipants in the formal test scored the two materials of CSR image. The scores of the high-CSR group were significantly higher than those of the low-CSR group ( $M$  low CSR = 2.99,  $M$  high CSR = 5.4,  $t = 7.39$ ,  $p < 0.001$ ).

After reading a description of the experiment, the subjects are asked to differentiate between groups of assortment structures randomly to complete the product selection task. Subsequent subjects then measure the relevant variables. All subjects have to complete the experimental task independently.

## 3. RESULTS

### 3.1 Relationship between assortment structures and consumer purchases based on CSR

We first checked the degree of difference in the control variables and found that there were no significant differences in task difficulty between attribute-based and benefit-based tasks ( $M$  attribute = 4.09,  $M$  benefit = 4.08,  $t = 0.003$ ,  $p > 0.1$ ). In the two groups (attribute vs. benefit), differences in the subjects’ knowledge is not significant ( $M$  attribute = 4.28,  $M$  benefit = 4.35,  $t = 0.062$ ,  $p > 0.1$ ).

The results of experiment 1 are shown in Figure 1. The results show that the main CSR effect is significant,  $F(1, 78) = 53.68$ ,  $p < 0.1$ ,  $M$  low CSR = 4.17,  $M$  high CSR = 5.6. The interaction is also significant,  $F(1, 78) = 10.56$ ,  $p < 0.1$ . For attribute-based,  $M$  low CSR = 4.63,  $M$  high CSR = 5.43, and for benefit-based,  $M$  low CSR = 3.73,  $M$  high CSR = 5.8. Experiment 1 verified the role of the assortment structure. In the case of similar quality, participants of experiment 1 examining a benefit-based assortment structure shows greater purchase intentions in a high-CSR group than they did in a low-CSR group. Participants of the experiment involving an attribute-based assortment structure shows no significant difference in purchase intentions between the high-CSR group and the low-CSR group. Validating the benefits of the assortment structure is favorable to increasing a consumer’s CSR purchase intention

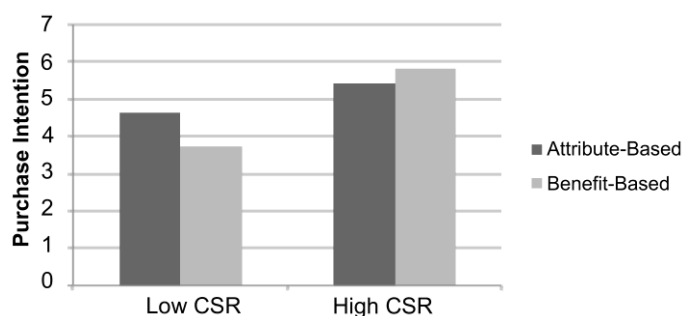


Figure 1. CSR purchase intentions, based on different assortment structure

### 3.2 The mediating role of perceived similarity

There were no significant differences between attribute- and benefit-based groups in task difficulty ( $M$  attribute = 3.81,  $M$  benefit = 3.68,  $t = 0.525$ ,  $p > 0.1$ ) in experiment 2. In these two groups, differences in knowledge about the tested products was significant ( $M$  attribute = 4.37,  $M$  benefit = 4.40,  $t = 0.009$ ,  $p > 0.1$ ).

The results of experiment 2 are shown in Figure 2. A 2 (assortment structure: attribute versus interest)  $\times$  2 (CSR: high versus low), two-factor variance analysis was carried out, with consumer's intentions to purchase as the dependent variable. The results showed that CSR was significant,  $F(1, 68) = 93.015$ ,  $p < 0.01$ ,  $M_{\text{low CSR}} = 4.01$ ,  $M_{\text{high CSR}} = 5.57$ . The interaction was also significant,  $F(1, 68) = 8.141$ ,  $p < 0.01$ . Scores for attribute-based products were:  $M_{\text{low CSR}} = 4.29$ ,  $M_{\text{high CSR}} = 5.39$ , and for benefit-based products:  $M_{\text{low CSR}} = 3.75$ ,  $M_{\text{high CSR}} = 5.76$ . Setting the perceived similarity of products and CSR image as the dependent variable, and making assortment structure (attribute versus benefit) the single factor analysis of variance, the results show that the main effect of assortment structures is significant,  $F(1,68) = 31.436$  (2). The results also show that the main effect of assortment structures is significant ( $P < 0.01$ ,  $M$  attribute = 4.28,  $M$  benefit = 5.26).

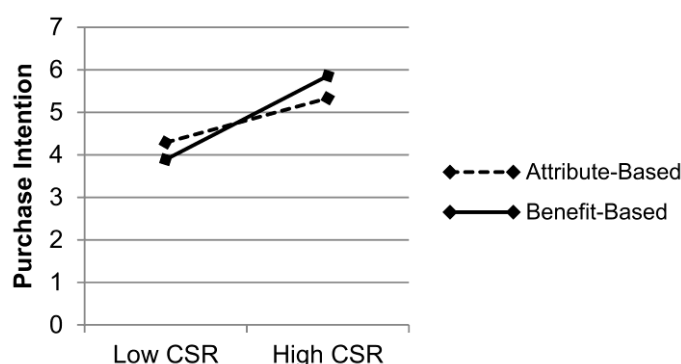


Figure 2. Consumer purchase intention based on CSR information in different assortment structures

Setting the product assortment method as the independent variable and the difference between the two products' social responsibility images as the dependent variable, the similarity between the target product and the CSR image is examined. The results obtained by Baron et al. (1986) (a three-step, mediator regression analysis) are shown in Figure 3.

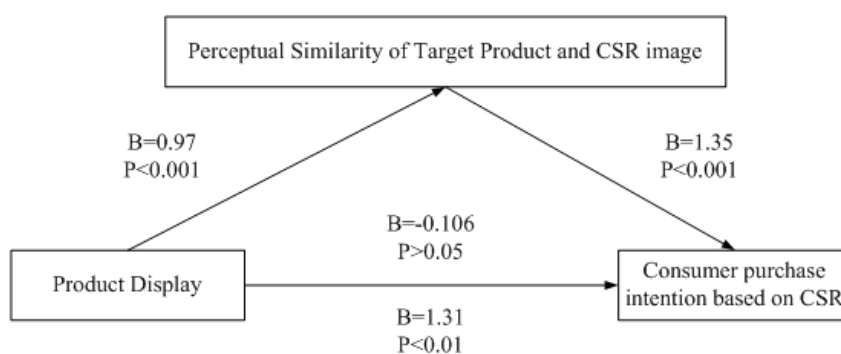


Figure 3. Mediation analysis

We adapted another assortment structure to verify the role of continuous, intermediary, mechanism-perceived similarity. That is, in the context of CSR, the consumer's purchase depends on the perceived similarity between the target and the standard.

#### 4. DISCUSSION

Our empirical evidence supports the influence of the assortment structures on consumer's purchases and their intermediate mechanisms in a CSR context. Experiment 1 verified the role of assortment structures. In the case of similar quality, participants of experiment 1 examining a benefit-based assortment structure shows greater purchase intentions in the high-CSR group than they did in the low-CSR group. Participants of the experiment involving an attribute-based assortment structure shows no significant difference in purchase intentions between the high-CSR group and the low-CSR group. Validating the benefits of the assortment structure is favorable to increasing a consumer's CSR purchase intention. Experiment 2 manipulated another assortment structure to verify the role of continuous, intermediary, mechanism-perceived similarity.

A strategy based on benefits can effectively favor consumers' purchase intention. We also illustrate the mediating role of perceived similarity by manipulating the arrangement of products. First, a product based on the benefit (vs. attribute) of the assortment structure will promote (vs. demote) the perceived similarity between target product and product. When using a benefit-based arrangement, it will lead subjects to use a global mindset. When consumers are asked to judge products of different CSR images, they compare their similarity with the CSR image, leading to a higher perceived similarity. Conversely, an attribute-based arrangement reduces the similarity perception. Second, an increase or decrease in perceived similarity will affect a consumer on the basis of CSR purchases. When consumers perceive similarity to a product and to its CSR image, the criteria for product evaluation will be assimilated. At this time, consumers will evaluate the product's CSR image, consumers based on CSR purchase effect was arise; on the contrary, perceived similarity weakened, consumers use CSR image less to determine the product, consumers based on CSR purchase effect weakened.

This article enriches consumer-related CSR research in the field of marketing. Current research mainly focuses on two aspects that explore the impact of consumer's purchases in a context of CSR: first, consumers' CSR response content, including their perceived response<sup>[15]</sup>, and behavioral responses<sup>[16]</sup>, and willingness to pay a premium, etc.; second, psychological factors from CSR responses, including inner perception (such as self-confidence, motivation, and sense of responsibility) and outside links (such as social networks)<sup>[17]</sup>. This paper used product assortment structure, which are essentially different from other variables, with CSR information processing that starts with the source of knowledge to solve the problem.

This paper also promotes research on product classification and location in the field of marketing. In past studies of classic marketing, researchers believe that attribute-based assortment structure are product-centric, help consumers select goods according to the attribute's preferences, reduce the perception of commodity similarity<sup>[18]</sup>, reduce the difficulty of decision-making, and enhance the purchase intention. This paper also draws inconsistent conclusions from different perspectives. This study concludes that it is advantageous to conduct product classification based on the benefits to a business of a good corporate image, and consumer-centricity can clearly articulate product positioning<sup>[19]</sup>.

The conclusions of this paper have important practical implications for retailers and brand manufacturers. First of all, CSR activities not only promote products and transfer information, but also process consumer information based more on product benefits than product attributes. Therefore, in the short term, corporations should use the competitive strategy of product assortment structure to enhance brand evaluation and consumer choice. In the long run, however, enterprises must incorporate CSR into corporate strategies and strengthen brand building.

There are certain limitations to this study. First, only tea and nutrition bars are used as experimental products, and the results are only applicable to similar product types. Future research can combine various experimental materials to examine the impact of assortment structures and CSR on consumer purchase intentions. Second, the study sample included only college students; thus the results can be applied to college

students alone because of their economic limitations and consumption experience. Other groups may exhibit different behavior patterns, which need to be studied separately. Future research can expand the scope, include more participants, and select more representative samples for measurement.

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