

Corporate-, Product-, and User-Image Dimensions and Purchase Intentions

The Mediating Role of Cognitive and Affective Attitudes

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Abstract—This study investigates the effects of corporate-, product- and user image dimensions on purchase intentions, with cognitive and affective attitudes as mediator. A questionnaire survey was conducted with convenience sample. The results demonstrate significant effects of three brand image dimensions on purchase intention. In addition, the cognitive and affective attitudes fully or partially account for the relationship. This study contributes to the understanding of the assessment of the relationship between brand image dimensions and purchasing behavior. Implications for brand management are also discussed.

Index Terms—Corporate Image, Product Image, User Image, Purchase Intention

I. INTRODUCTION

Brand image has been an important concept in consumer behavior research since the early 1950s. Both marketing researchers and marketers have long advocated the use of a clearly defined brand image as a basis for market success. A well-communicated brand image enables consumers to identify the needs satisfied by the brand and thereby differentiate the brand from its competitors [1, 2]. In fact, developing a brand image strategy has been described as the first and most vital step in positioning a brand and driving brand equity in the marketplace [3-5]. As the growing importance of brand image strategy in marketing, a research issue evolved that how the brand image perceptions affect consumers purchasing behavior.

Brand image is the most efficient way to talk to consumers via translating the different benefits about a brand. One common mistake brand strategists make is having too narrowed a view of the brand and only focusing some attributes when creating a brand's image [6]. Given consumers' perceptions may not be product specific; brand image is a multi-dimensional construct. The image of a brand can be described as having three contributing sub-images, the image of the provider of the product/service, or corporate image; the image of the user; and the image of the product/service itself [4]. Thus, two questions arise: what makes an effective brand and,

second, how the company can effectively communicate to consumers with different brand image strategy?

In the aforementioned studies, however, relatively little empirical evidence has been provided for the effects of these dimensions on purchase intention. Especially for the Chinese markets, as brand image perception varies across culture [7], the effects of brand image dimensions need to be examined further. Thus, the purpose of this study is to investigate the predicting roles of corporate-, product-, and user-image on purchase intention in the context of Chinese mobile-phone market, and the mediating role of cognitive and affective attitude are also examined in this study.

This paper is structured as follows. We first review the literature on key issues involving brand image, associations with purchasing behavior, and the mediating role of attitude. The data and methods of the study follow in the section. Empirical evidence on the effects of brand image dimensions on purchasing intention is provided, and the mediating role of cognitive and affective attitude is also demonstrated. The paper ends with conclusions and implications. It is expected that this study will provide a more thorough understanding of building a company's brand image strategy focusing on three brand image dimensions in Chinese mobile-phone industry.

II. LITERATURE REVIEW

A. Brand Image

There has been general agreement that brands—at least some brands—do have images, defined as the associations linked to a brand [4], or perceptions about a brand as reflected by the brand associations held in consumer memory [3]. When consumers see a particular brand, the brand association is any idea caused by that certain brand, including feelings, experiences, appraisals, and brand positioning [3]. The brand image perception varies across categories, brands [4] and culture [7], thus need to be investigated in multi-cultures, especially for Chinese markets.

Brand image is a complex constructs and can be made of several dimensions [8]. Brand association is the mutual combination of informational nodes and come from all possible forms, and may reflect product characteristics or independent characteristics outside the product [3]. Biel

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[4] suggests brand image has three components: corporate image, image of the user and image of the product. While Hsieh et al [9] extends the product image with corporate image and country image, and inspect the relationship between product-, corporate-, country- image and purchase behavior, which was also verified in multi-cultures [10].

Park et al [2] states brand image incorporates the functional, experiential and symbolic benefits to the consumer; many brands offer a mixture of symbolic, functional, and experiential benefits. A brand with functional benefits is one designed to satisfy consumers' needs to solve consumption-related problems. A brand with symbolic (or social) benefits is one designed to fulfill consumers' desires for self-enhancement, role position, group membership, or ego identification. Finally, a brand with experiential benefits is one designed to fulfill consumers' desires for sensory pleasure, variety, or cognitive stimulation.

The current study extends Hsieh's et al [9] study by following Biel's [4] definition and adopts the three previously mentioned brand concepts as corporate image, product image, and user image. The brand theorists suggest that what a person knows about a company can influence perceptions of the company's products, e.g. the corporate ability associations and corporate social responsibility associations will influence consumers' beliefs about and attitudes towards the products of that company [11], thus corporate brand image may affect the product evaluations, and the relationship is moderated by perceived risk [12]. The product image is related to the benefits attached to the products. As the symbolic, functional, and experiential benefits of the products have been proved to lead to brand preference [6], the product image will also influence the product evaluations. The user image refers to whether the brand personality is congruent with the consumers [13]. If the brand personality fit the consumers' self-concept, the product may receive a high evaluation.

With regard to the performance of brand image, Aaker [1] claims that brand association aid in acquiring or handling information, creating positive attitudes or feelings, positioning brand and differentiating it from competitors as well as creating value for the company. Empirical evidence suggests that brand image has positive influence on brand-extension attitude [8]. Moreover, Krishnan [5] demonstrates that compared to brands with low equity, high equity brands will have greater number of positive associations, more unique associations from competing brands, fewer unique associations from the category, and more associations from direct experiences and word-of-mouth, which has directly verified the relationship between association pattern of brand image and brand equity.

B. Mediating Role of Consumers Attitude

Brand associations in the study of Keller [3] are classified into three major categories with respect to their level of abstraction (i.e., attribute, benefit, and overall brand attitude). Here, attribute refers to descriptive features that characterize a product or service, benefit is

the personal value that consumers attach to the product or service, and brand attitude is consumers' overall evaluation of the brand [9]. Ideally, in consumers' memory, brand-image perception should encompass all three types of brand associations. However, given the entailed complexity, most of the studies incorporate only benefit associations as the key elements [6, 9]. The corporate-, product-, and user image of this study also embrace only the benefit associations of brand image. Thus, overall brand attitude as an important part of brand association should be investigated further.

Brand attitudes are important because they often form the basis for consumer behavior (e.g., brand choice). Though different models of brand attitudes have been proposed, one widely accepted approach is based on a multi-attribute formulation in which brand attitudes are a function of the associated attributes and benefits that are salient for the brand [3]. According to the theory of planned behavior, there are three conceptually independent determinants of intention: attitude toward the behavior, subjective norm and perceived behavioral control. As a general rule, the more favorable the attitude, the stronger should be an individual's intention to perform the behavior under consideration [14]. According to the planned behavior theory, attitudes develop reasonably from the beliefs people hold about the object [14]. Thus the attitude may mediate the relationship between brand image beliefs and purchase intention.

The basic theory of planned behavior model was expanded to include the separation of affective and cognitive predictors of attitude towards purchase intention. The majority of social psychology literature suggests that attitudes are composed of cognitive, affective, and behavioral parts. This multidimensional view of attitude implies that consumers' willingness to buy may be influenced by cognitive and affective antecedents [15]. Following this, we propose that purchase intention can be predicted by cognitive and affective attitudes.

C. Research Questions and Hypotheses

Drawing from the previous literature and field observation, we set up the research questions in an attempt to explore the relationship between brand image dimensions and purchase intention. Generally, the social responsibility and consumer concern of an enterprise will increase the consumers' willingness to buy their products, and a well product or service image may increase the consumers' brand usage. Meanwhile, consumer would like to buy the products with congruent personality. Thus, we hypothesize that:

H1a: Corporate image has positive influence on purchase intentions.

H1b: Product image has positive influence on purchase intentions.

H1c: User image has positive influence on purchase intentions.

According to the planned behavior model, the attitude may mediate the relationship between beliefs and intention. Thus with regard to this study, we separate the

two components of cognitive attitude and affective attitude, and hypothesize that:

H2a: Cognitive attitude will mediate the relationship between corporate image and purchase intention.

H2b: Cognitive attitude will mediate the relationship between product image and purchase intention.

H2c: Cognitive attitude will mediate the relationship between user image and purchase intention.

H3a: Affective attitude will mediate the relationship between corporate image and purchase intention.

H3b: Affective attitude will mediate the relationship between product image and purchase intention.

H3c: Affective attitude will mediate the relationship between user image and purchase intention.

III. DATA AND METHOD

A. Instruments

All our measures employ items from multiple-item scales that have been tested and used in previous studies. The dependent variables of purchase intention gathered from the work of Dodds et al [16]. The purchase intention was measured on four items as “The likelihood of buying products of this brand is very high”, “I would consider buying products of this brand”, “The probability that I would like to buy products of this brand is very high”, and “My willingness to buy this product is very high”.

The predictor variables of three brand image dimensions were measured on multi-items modified from Zhuohao et al [17] and Xiucheng and Jie [18]. The corporate image was measured as “The innovation and update of the products of this corporate is strong”, “The corporate of this brand care for customer very much”, and “The corporate of this brand have a well impression”. The product image was measured with the following indicators: Function, Style, Durability, and Quality. And the user image was measured with the following statements. “I can easily imagine this brand as a person”, “This brand have a strong personality”, and “The personality of this brand matches with mine”.

The mediator variables of cognitive attitude and affective attitude were adapted from the study of Verplanken et al [19]. The affective attitudes were: favorable, pleasant, comfortable, exciting, and attractive. The cognitive attitudes were good, wise, positive, useful, and worthy. All of the items were evaluated on a seven-point Likert scale ranging from “strongly disagree” to “strong degree”.

B. Participations

The study was investigated in mobile-phone market, because the products have the following characteristic: (1) It is a hedonic and utilitarian products; (2) It is a high-involvement characteristic; and (3) It is widely adopted in Chinese markets. Data was collected from three universities in Beijing. The final effective sample size was 268.

IV. RESULTS

A. The Effect of Brand Image Dimensions on Purchase Intention

We expect that the brand image dimensions have positive dimensions have positive influence on purchase intention. The coefficients of brand image dimensions and purchase intention were estimated and presented in table 1. All of the coefficients for corporate image, product image and user image were significantly positive, indicating positive relationships between brand image dimensions and purchase intention. H1 to H3 were supported. The standardized path coefficients of product image leading to purchasing intention showed a relative stronger relationship than the two other dimensions, indicating the product image should be given more attention in the context of this study.

TABLE I. REGRESSION RESULTS OF BRAND IMAGE DIMENSIONS ON PURCHASE INTENTION

	B	SE B	β
Constant	1.044***	.195	
Corporate Image	.094*	.047	.104
Product Image	.423***	.046	.451
User Image	.202***	.052	.212

*p<0.05, **p<0.01, ***p<0.001

B. The Mediating Role of Cognitive Attitude

Furthermore, the mediating effect of cognitive attitude on the relationship between brand image dimensions and purchase intention were investigated. Baron and Kenny [20] proposed a four-step approach to statistical mediation analysis, in which several analyses are conducted and the significance of the coefficients is examined at each step. First, initial variable is correlated with the outcome. Second, the initial variable is correlated with the mediator. Third, the mediator affects the outcome variable. It is not sufficient just to correlate the mediator with the outcome; the mediator and the outcome may be correlated because they are both caused by the initial variable X. Thus, the initial variable must be controlled in establishing the effect of the mediator on the outcome. Finally, the mediating effect should be statistically tested. Following Baron and Kenny [20] approaches, we conducted four steps of regression analysis. The purchase intention was the outcome, the cognitive attitude was the mediator, and the three brand image dimensions were predictors respectively. As shown in table 2 to table 4, the direct effects of corporate image and user image on purchase intention from the fourth equation were smaller than the first step and statistically not significant. This pattern indicates a full mediation model. In other words, cognitive attitude accounts for the relationships between corporate-, user-image and purchase intention. However, the direct effect of product image on purchase intention from the fourth equation was smaller than the first step but statistically significant; the Sobel Z test was significant. This pattern indicates a partial mediation model. That is, cognitive attitude can

partially explain the relationship between product image and purchase intention.

TABLE II. THE MEDIATING EFFECT OF COGNITIVE ATTITUDE ON THE RELATIONSHIP BETWEEN CORPORATE IMAGE AND PURCHASE INTENTION

Step	Predictor: Corporate Image	B	SE B	β
1	Corporate Image	.411***	.043	.456
2	Corporate Image	.434***	.036	.540
3	Corporate Image	.035	.035	.039
	Cognitive Attitude	.867***	.043	.772
4	Sobel Z	10.32***		

*p<0.05, **p<0.01, ***p<0.001

TABLE III. THE MEDIATING EFFECT OF COGNITIVE ATTITUDE ON THE RELATIONSHIP BETWEEN PRODUCT IMAGE AND PURCHASE INTENTION

Step	Predictor: Product Image	B	SE B	β
1	Product Image	.580***	.039	.618
2	Product Image	.531***	.034	.635
3	Product Image	.180***	.038	.191
	Cognitive Attitude	.754***	.046	.671
4	Sobel Z	11.26***		

*p<0.05, **p<0.01, ***p<0.001

TABLE IV. THE MEDIATING EFFECT OF COGNITIVE ATTITUDE ON THE RELATIONSHIP BETWEEN USER IMAGE AND PURCHASE INTENTION

Step	Predictor: User Image	B	SE B	β
1	User Image	.499***	.043	.524
2	User Image	.522***	.036	.615
3	User Image	.056	.039	.059
	Cognitive Attitude	.850***	.046	.757
4	Sobel Z	11.47***		

*p<0.05, **p<0.01, ***p<0.001

C. The Mediating Role of Affective Attitude

The mediating effects of affective attitude were also examined according to the Baron and Kenny (1986) approaches. As shown in table 5 to table 7, controlled the variable of affective attitude, the direct effects of corporate image and user image on purchase intention from the fourth equation were smaller than the first step and statistically not significant, indicating a full mediation model. And although the effect of product image on purchase intention controlled the mediator was

still significant, the coefficients was smaller than the original regression, and the Sobel Z test was significant indicating a partial mediation model. In other words, the mediating role of affective attitude was similar with that of cognitive attitude, e.g. affective attitude can accounts for the relationship between corporate-, user- image and purchase intention, and partially explain the relationship between product image and purchase intention.

TABLE V. THE MEDIATING EFFECT OF AFFECTIVE ATTITUDE ON THE RELATIONSHIP BETWEEN CORPORATE IMAGE AND PURCHASE INTENTION

Step	Predictor: Corporate Image	B	SE B	β
1	Corporate Image	.411***	.043	.456
2	Corporate Image	.487***	.037	.575
3	Corporate Image	-.013	.034	-.015
	Affective Attitude	.872***	.041	.819
4	Sobel Z	11.24***		

*p<0.05, **p<0.01, ***p<0.001

TABLE VI. THE MEDIATING EFFECT OF AFFECTIVE ATTITUDE ON THE RELATIONSHIP BETWEEN PRODUCT IMAGE AND PURCHASE INTENTION

Step	Predictor: Product Image	B	SE B	β
1	Product Image	.580***	.039	.618
2	Product Image	.577***	.035	.654
3	Product Image	.144***	.038	.154
	Affective Attitude	.756***	.043	.710
4	Sobel Z	11.92***		

*p<0.05, **p<0.01, ***p<0.001

TABLE VII. THE MEDIATING EFFECT OF AFFECTIVE ATTITUDE ON THE RELATIONSHIP BETWEEN USER IMAGE AND PURCHASE INTENTION

Step	Predictor: User Image	B	SE B	β
1	User Image	.499***	.043	.524
2	User Image	.525	.038	.598
3	User Image	.059	.037	.062
	Affective Attitude	.823	.041	.773
4	Sobel Z	11.46***		

*p<0.05, **p<0.01, ***p<0.001

V. CONCLUSIONS AND DISCUSSIONS

The results of the analyses disclose the direct and indirect effects of three dimensions of brand image on purchase intention. The results were consistent with

previous studies, which suppose corporate image, product image, and user image will affect the consumers' willingness to purchase.

Results of this study indicates that building brand image of mobile-phone industry should focus more on the product image to leading consumers' buying decisions, however, other dimensions of corporate and user image should not be ignored as they have positive relationship with consumers' purchasing behavior.

Besides that, the mediating roles of cognitive and affective attitudes were also examined in the study and reveal that attitudes can fully or partially account for the relationships between brand image dimensions and purchase intentions.

The contribution of this study is to empirically investigate the effects of brand image dimensions on purchasing behavior, and examine the influence route deeply from the view of planned behavior model, which may contribute to understanding the relationships between brand image dimensions and performance, and make a supplementary for the planned behavior model further. The managerial implication is that help the enterprises comprehend the three dimensions of brand image, and make appropriate marketing campaigns.

Limitation of this study includes the lack of category specific investigation as the contribution of the three dimensions of brand image varies by product category and by brand [4]. Sampling frames is coming from the students in the university. The convenience sample may limit the generalizability of this study. Other variables such as subjective norm should also be controlled in the study, as they may affect the consumers' willingness to buy [16]. Direction of further research is to conduct research in other categories and increase the generalizability of the study.

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