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WHAT AND HOW AFFECT INFLUENCE THE CONSEQUENCE OF PRODUCT TRIAL

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Abstract

IT product trial is an important method to promote consumers' attitude toward IT product. Affect is one of the most essential factors and components in determining consumers' attitude. However, previous studies pay more attention to the affective response to trial, which measure the holistic feeling about product trial experience. Affect in product trial is complex and multipartite that different parts may have different influence on consumers' attitude. Therefore, we build the Affective Response Framework to divide consumers' affect into affective response to product, affective response to behaviour, and affective response to environment. And then we analyse the relationship between three components of affective response and consumers' attitude. In order to test the hypothesis, we launch a field study of new IT product trial (an electroencephalogram product) among 205 college students. Results reveal that affective response to product and behaviour have positive influence on attitude toward product; affective response to behaviour and environment have positive influence on attitude toward trial.

Keywords: Product Trial, Affective Response, Consumers' Attitude

1. INTRODUCTION

Product Trial refers to a consumer's first direct sensory contact with the product to determine beliefs, attitude and purchase intention (Kempf et al. 1998). It is useful to familiarize consumers with new products, about which they have little experience and knowledge (Smith et al. 1982). With the advance of technology, new IT products emerge constantly and rapidly. Most of them are so creative that not familiar to consumers, such as the health-related electroencephalogram IT product (e.g., NeuroSky¹). As for these new and unfamiliar products, product trial is one of the most efficient methods for marketing (Adya et al. 2011; Wright et al. 1995). Product trial can help consumers familiarize the IT product quickly and comprehensively (Adya et al. 2011), and form more positive attitude toward them (Huang et al. 2015; Wang et al. 2013; Soscia et al. 2011).

During product trial, affect is one of the most important elements in determining the formation of attribute toward trial, product and brand (Kempf et al. 2001; Kim et al. 2007). In most previous product trial studies, affect refers to the affective response to trial (Kempf et al. 2001). It covers the holistic feeling about every component of the product trial experience. But, theoretically speaking, while interacting with IT product, consumers have different affective response, such as response toward object (IT itself), usage behaviors (interaction), and usage environment (e.g., staff, atmosphere) (Zhang 2013; Donovan et al. 1994). We, thus far, do not know the effect of the specific affective response on consumers' attitude. Practically speaking, because most of previous studies just explore the effect of the holistic feeling about trial, it is possible that managers only understand they should pay attention to consumers' affect, but they do not realize where the consumers' affect is induced from. Then maybe they do not understand how to help consumers have positive affect efficiently and specifically.

To sum up, in this paper, we are trying to analyze the effect of the affective response on IT product trial in detail. To be specific, there are two questions we want to answer: (1) what is the categories of consumers' affect in product trial experience; (2) how do consumers' different affective response influence their product trial experience.

2. AFFECT²

Interacting with the IT product personally could lead to consumers' affective response to the product itself and the behavior of performing the product (Zhang 2013). For example, one can say "the iPhone 6s looks attractive" (about an object) or "using iPhone 6s is enjoyable" (about a behavior) (Zhang 2013). Therefore, affect can be divided into affective response to product and affective response to behavior. In this paper, affective response to product is defined as a psychological tendency expressed by evaluating a particular entity with some degree of favor or disfavor; affective response to behavior is defined as an individual's positive or negative feelings about performing the target behavior (Zhang 2013).

¹ www.neurosky.com

² Affect is an umbrella term for a set of special concepts that includes emotions, moods, and feelings (Zhang 2013). In this paper, we use affect to represent mood, emotion, and feeling in general.

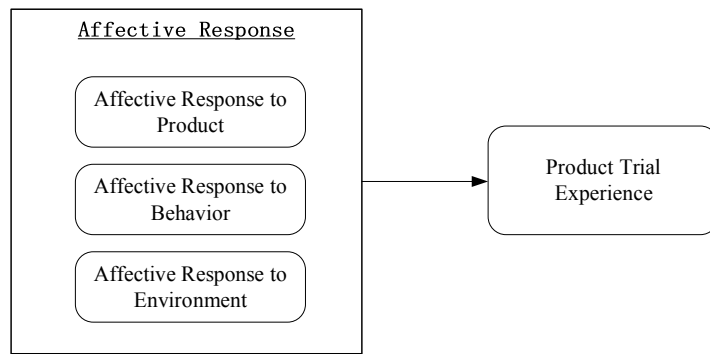


Figure 1 Affective Response Framework

In studies of retailing, scholars find that consumers’ affective response to shopping environment is an important factor in determining consumers’ in-store experiences (Yoo et al. 1998). Product trial as a special shopping experience also allows consumers to have affect induced from environment. In addition, as for the unfamiliar product, external clue from environment is useful for consumers to evaluate the product and make decision (Petty et al. 1983). Affective response to environment refers to users’ pleasure or displeasure induced by product-trial environment (Donovan et al. 1994).

In conclusion, we build this Affective Response Framework about the product trial (Figure 1). In this framework, Affective Response is divided into three sub-categories: affective response to product, affective response to behavior, and affective response to environment. In the next section, we will use this framework to expand previous trial research, and analyze the relationship between different affects and consumers’ attitude.

3. RESEARCH MODEL

In previous studies, consumers’ attitude can be divided into attitude toward product and attitude toward trial. And it is proved that holistic affective response to product trial experience has significant influence on the two consumers’ attitudes. Reference to these studies and other affect studies, we expand the concept of affect and build the research model to analyze the relationship of affect with users’ attitude in product-trial deeply (see Figure 2). We will elaborate the details in the following sections.

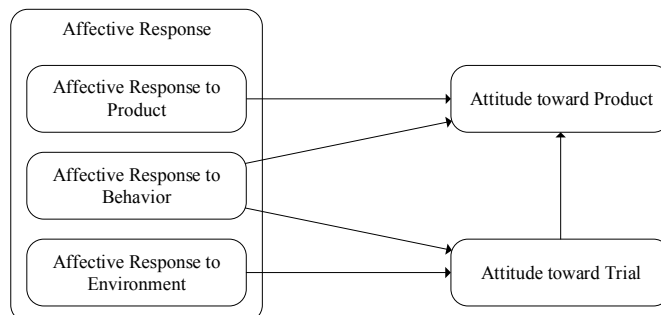


Figure 2 Research Model

3.1. Affective Response to Product

In this paper, Affective response to product refers to a psychological tendency expressed by evaluating a particular entity with some degree of favor or disfavor (Zhang 2013). Attitudes toward products refer to consumers' overall evaluations of products itself (Jiang et al. 2007). IT artifacts have been proved to generate affective arousal in IT users, which show hedonic value of IS (van der Heijden 2004). Therefore, the more positive the affect induced by product, the more valuable users will feel that the product is. So we infer that when consumers have greater affective response to product, they will have better attitude toward product. Then we propose our hypothesis:

Hypothesis 1: Affective Response to Product has positive influence on their Attitude toward Product.

3.2. Affective Response to Behaviour

Affective response to behavior means an individual's positive or negative feelings about performing the target behavior (Zhang 2013). Attitudes toward trial refers to consumers' overall evaluations of a trial experience (Jiang et al. 2007). Affective response to behavior is the essential part in determining not only users' attitude toward product itself, but also attitude toward product Trial. The interaction with product itself is an important process to evaluate the product (Kempf et al. 1998). Then the IT product usage is the necessary and significant part in the formation of attitude toward product (Davis 1989). Therefore, we propose our hypothesis:

Hypothesis 2: Affective Response to Behavior has positive influence on their Attitude toward Product.

Hypothesis 3: Affective Response to Behavior has positive influence on their Attitude toward Trial.

Hypothesis 4: Attitude toward Trial has positive influence on Attitude toward Product.

3.3. Affective Response to Environment

Affective response to environment refers to users' pleasure or displeasure induced by product-trial environment (Donovan et al. 1994). For consumers, their consumption behaviors and post-consumption behaviors can be affected by their affective response to environment (Donovan et al. 1994; Kempf 1999; Machleit et al. 2000). By manipulating all available ambient elements, retailers try their best to induce consumers' positive and favorable affect, such as euphonious background music, friendly and polite clerk, and appropriate decoration; while trying to reduce the negative affect that may arise from the undesired conditions, such as crowd, noise, mess, and odor (Machleit et al. 2000). Therefore, we propose our hypothesis:

Hypothesis 5: Affective Response to Environment has positive influence on their Attitude toward Trial.

4. RESEARCH METHOD

To empirically test the model, a field study was conducted using survey method to collect data. In the study, subjects were invited to attend an electroencephalogram product trial. The electroencephalogram product can detect users' brain activity and automatically provide a report containing users' brain ability, such as focus, memory, reflect and so on; brain health condition, such as sleeping, anxiety, fatigue and

so on. The reason that we used this kind of product in our field study is that the product is so new and unfamiliar to subjects that no one has never used it before. Furthermore, according to our data, 39% subjects did not hear of this kind of product; 46.3% subjects just heard of this kind of product, but did not have much knowledge about it.

4.1. Participant and Procedure

In the present study, we used college students as our field study subjects. The procedure of the field study is as following: First, in class, we introduced student about an electroencephalogram product trial activity. The information we provided included: the picture of the product, the function of the product, what the student needed to do if decided to participate and the time and address of our activity. If students would like to attend, they could register right now or make a call later. After trying the product at the experiment day, students would fill a questionnaire. Finally, there were 205 students who have participated to our product trial activity.

4.2. Measurement

The scale of Perceived Affective Quality (PAQ) is most widely-used to measure an individual's perception of IT product to change his or her core affect (Zhang et al. 2005). Jiang and Benbasat's (2007) measurement of usage behavior is used to measure subject's Affective Response to Behavior. PAD has been employed in to measure emotional responses to environmental stimuli (Donovan et al. 1994). Attitude toward Product, Attitude toward Trial was adapted from Jiang et al. (2007) study.

5. DATA ANALYSES AND RESULTS

5.1. Measurement Model

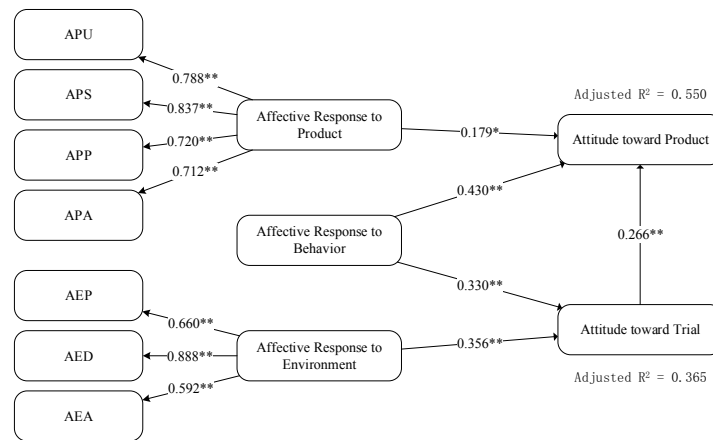
We note that all reliability coefficients (Cronbach's Alpha and Composing Reliability) are above 0.70 and each AVE is above 0.50, indicating that the measurements are reliable and the latent constructs can account for at least 50 percent of the variance in the items. In order to further assess validity of our measurement instruments, a cross-loadings analysis was constructed, as suggested by Gefen et al. (2000). The result shows that each item loading is above 0.7 and higher under its assigned latent construct than other ones, supporting adequate convergent and discriminant validity.

5.2. Hypothesis Testing

It can be seen from Figure 3, Affective Response to Product is a second-order constructs, containing four first-order construct, namely, Arousal Quality (APA), Sleepy Quality (APS), Pleasant Quality (APP), Unpleasant Quality (APU). According to Wetzels et al.(Wetzels et al. 2009), all items of the four first-order constructs were included in the measurement of Affective Response to Product. Then, the PLS analysis shows that the coefficient is 0.179, significant at $\alpha = 0.05$, which means the Hypothesis 1 is supported.

According to Hypothesis 2 and 3, Affective Response to Behavior should have significant positive influence on Attitude toward Product and Attitude toward Trial. As Figure 3 shows that path coefficients

are 0.299 and 0.494 respectively, both significant at 0.01. Therefore, the Hypothesis 2 and 3 are both supported. The coefficient of attitude toward trial and product is 0.266, significant at 0.01 level. Hypothesis 4 is supported.



Note: **: significant at level 0.01; *: significant at level 0.05

Figure 3 Analysis of Results

Affective Response to Environment is another second-order construct in this paper, which contains three first-order construct: Pleasure (AEP), Arousal (AEA), Dominance (AED). It can be seen that Affective Response to Environment has significant positive influence on Attitude toward Trial (path coefficient is 0.354, significant at 0.01). Therefore, Hypothesis 5 is supported.

6. DISCUSSION

First, an Affective Response Framework is proposed. In previous studies, affect is treated as a unidimensional construct to measure consumers' holistic feeling of the product trial experience (Kim et al. 2007). However, psychological studies have found consumers' affect during interaction with IT product is multi-dimensional (e.g., Zhang 2013). Reference with these studies, an Affective Response Framework during product trial experience is proposed. In this framework, consumers' affective response can be divided into three components: Affective Response to Product, Affective Response to Behavior, and Affective to Environment.

Second, different components of Affective Response have different influence on consumers' attitude. It can be seen from Figure 3, Affective Response to Behavior has greater influence on consumers' Attitude toward Product than Affective Response to Product. It is possible that as for health-related IT product (utilitarian IT product), consumers pay more attention to its usage than what the product itself makes them feel (e.g., "it looks attractive/beautiful") (Benlian et al. 2010). It is because consumers can perceive the usefulness or ease of use from personal usage (Adya et al. 2011), which are more important to evaluate the utilitarian product than affect (van der Heijden 2004). In addition, the Affective Response to Environment is also has significant influence on consumers' Attitude toward Trial. The important role of affect induced from environment result from the fact that when consumers lack important information to make decision, they tend to utilize the information acquired from environment (Petty et al. 1983).

7. ACKNOWLEDGEMENT

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