

THE EFFECTS OF REFERENCE PRICE AND AESTHETIC PREFERENCE ON THE PRICE OF WILLINGNESS-TO-SELL SELF-DESIGNED PRODUCTS

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ABSTRACT

This research investigates how reference price and aesthetic preference affect the willingness-to-sell (WTS) and the selling price of self-designed products. There were two experiments conducted. The findings confirm the IKEA phenomenon-the increase in valuation of self-made products. The findings also show that the interaction effect of reference price and self-esteem is significant. Furthermore, the findings demonstrate that the reference price is moderated by the aesthetic preference. Consumers with classicism will sell their self-made product for a higher price in the reference price condition than in the no-reference price condition. Consumers with romanticism will sell their self-made product for a higher price in the no-reference price condition than in the reference price condition. Theoretical and managerial implications of the findings are provided.

INTRODUCTION

The “customization-it-yourself” or self-customization market is growing at a rapid rate in many categories. A consumer may make a product by following step-by-step instructions or may go online and design parts of a product [5]. Norton, Mochon and Ariely (2009) suggest that labor leads to love and increases valuation. They call this phenomenon the “IKEA effect,” named in honor of the Swedish company whose products typically arrive with some assembly required [14].

Bandura pointed to successful completion of task as one means by which people can meet their goal to feel competent and in control [2]. Mass-customization (MC) strategies allow consumers to create individualized products that match their personal needs. MC takes advantage of the balance between low cost and differentiation and appeal to broad targets. It is becoming more available in the marketplace.

Previous research demonstrates the endowment effect that people prefer goods with which they have been endowed [10], and thus some of the overvaluation may have been due merely to perceived ownership of the product. Some studies also indicate that the user’s willingness-to-pay (WTP) for self-designed products can be much higher than in the case of standard products, suggesting that the self-made operation holds the potential to be a profitable marketing strategy [5] [16].

In an attempt to better understand the influence of the “I designed it myself” effect, this research seeks to explore what psychological mechanisms underlie the increase in valuation when consumers participate in the co-creation of value for the self-designed products. The authors investigated how the reference price and aesthetics preference influence the way people evaluate the price of willingness-to-sell for their self-made products.

THEORETICAL BACKGROUND

Self-design with a Mass-customization Create Value

Many companies create websites that enable consumers to design their own individual products. The economic value of self-designed products using mass customization (MC) toolkits has been attributed to two factors of preference fit achieved and design effort [6]. Moreover, prior research on the endowment suggests that the subjective value a person attributes to an object is contingent upon whether he/she owns the object or not. Products included in one's endowment are valued more highly than identical goods not held in one's endowment [10] [11].

Norton et al. conducted several experiments to investigate the IKEA effect by comparing participants' willingness-to-pay (WTP) for their self-made product. If participants' WTP was equal to or above that price, they would pay that amount and take the IKEA box (the stimuli), while if their bid was below the price, they would not purchase the box. However, another psychological mechanism, the consumers' initial reference price, influenced the judgment of consumers' decision making [3]. Thus, this research proposed that reference price would be an anchor to influence consumers' willingness-to-sell (instead of willingness-to-pay) and their tendency to overvalue the selling price for their self-designed products [2][3][12][13]. We extend this research by providing a clean test for the "I designed it myself" effect and demonstrates when a specific price line as reference point was offered for participants to decide how much they would sell their self-designed products for [6]. Literature on the endowment effect offers one possible explanation: individuals who created an object interpret it more as "theirs" than individuals who merely bought it, and in turn, subjective ownership feelings increase the subjective value of the product [10][11]. Based on the "IKEA Effect" [14], consumers might overestimate the value of self-assembled merchandise, hence the authors proposed people would value self-designed products higher when a no-reference price situation is tested.

***H1:** Consumers will sell their self-made product for a higher price in the no-reference price condition than in the reference price condition.*

The Effects of Personal Traits on Evaluation with Self-Design Products

The most widely acknowledged explanation is that people strive for self-esteem because high self-esteem promotes positive affect by buffering the person against stress and other negative emotions. Furthermore, research findings attest that people with low self-esteem experience virtually every negative emotion more commonly than those with high self-esteem. Due to neutral or negative self-perception, consumers might lack confidence and interest in designing self-designed products. Their mood which consisted of highly diffuse, purely affective feelings spawned by psychological processes might change rapidly and exhibit different levels of self-esteem in different situations [13].

Short-lived state changes were used to determine whether people's willingness to sell their self-designed products [7] was significantly influenced by different self-esteem conditions. The State Self-Esteem Scale (SSES) has many potential uses, which include serving as a valid manipulation check index, measuring clinical changes in self-esteem, and untangling the confounded relation between mood and self-esteem. Based on defensive behavior, it was proposed that self-esteem might be a moderator to influence consumers' pricing on their self-designed products. We argue that the main effect will become stronger in those MC toolkits that allow users to make a larger subjective contribution to their self-designed products. Consumers with a stronger self-esteem will value the resulting self-designed product more than a consumer with low self-esteem (i.e. who feels that he/she did not contribute much to the self-designed product).

***H2:** Consumers with high self-esteem will sell their self-made product for a higher price in the no-reference price condition than in the reference price condition. However, with consumers who have low self-esteem, there is no difference on the selling price between the no-reference*

price condition and the reference price condition.

Although the production of self-designed products has been practiced for years, the study of the role of aesthetic consumption is in its infancy. It was claimed that the effective manufacturing of products no longer held a sufficient competitive advantage; Instead, the route to commercial success was supposed to be found in the artful creation of aesthetic offerings, of images and brands [4]. Obviously, there is still a great deal to discover in the field of self-designed aesthetic value. As a result, we argue that aesthetic preference affects customers' willingness to sell their own products.

We propose that the different tastes of aesthetic preferences might be a moderating factor on evaluation of self-designed products. Consumers who were high in classicism were seen as more purposive, rational, controlled, and risk averse; on the other hand, people who were high in romanticism were widely regarded as more sensitive, emotional, chaotic, and risk-seeking [8]. Therefore, the researchers doubted that aesthetics was a new issue in self-designed goods: and the Romanticism scale was used to identify the differences of the consumers' view point of aesthetic preference. The split between classicism and romanticism was a common topic in the experiment of philosophy in general, and in aesthetics [9]. In this research, consumers' personalities were identified by the Romanticism Scale (RC) which showed a great validity in identifying consumers' aesthetics value. We proposed that being high in classicism would lead consumers to a lower selling price than for those who were high in romanticism when a reference price was not presented.

H₃: Consumers with classicism will sell their self-made product for a higher price in the reference price condition than in the no-reference price condition.

H₄: Consumers with romanticism will sell their self-made product for a lower price in the reference price condition than in the no-reference price condition.

EXPERIMENT 1

The purpose of experiment 1 was to test whether reference price and self-esteem would have an impact on the selling price of self-designed products.

Participants and design

One hundred and forty-one students in a computer lab were recruited for the experiment in exchange for a course credit. Participants were assigned to one of four conditions in a 2(reference price: yes vs. no) × 2(self-esteem: low vs. high) between-subjects design. The experimental stimulus was to self-design a cell-phone skin. The condition of the reference price provided a single price line, NT\$ 500, whereas the no-reference price condition did not provide price information.

Procedure and measures

Participants entered a website and were directed to the self-made product (cell phone skin) experimental webpage and instructed to use a supportive toolkit to complete their product. After completing their self-design process, participants filled out a questionnaire. Firstly, they were required to answer whether they would like to sell their self-designed products or not (page 1). If they were willing-to-sell their self-designed product, the selling price was asked as a following question (page 2). Lastly, self-esteem was taken as part of the participants' background information (page 3).

Independent Variable. The reference price was used as a manipulated variable. A certain price, NT\$ 500 was tagged as a reference price, whereas the no-reference price condition did not provide any price

information. The measurement of short-lived state changes in self-esteem which contains three aspects of measurement (social, performance and appearance) was adopted to identify participants in a timed psychological situation [7] as a moderating variable in this experiment

Dependent Variable. Participants were asked how much they would be willing to sell their self-designed product for: i.e., cell phone skin based on the condition with or without a reference price.

Results and discussion

Twenty-eight invalid samples were excluded because of unwillingness to sell. The valid sample was 113: 80.14% of the participants would be willing to sell their self-designed products. The means values for the price of willingness-to-sell in different conditions are shown in Figure 1. Self-esteem was divided into two groups (median score). A 2(reference price: yes vs. no) \times 2(self-esteem: high vs. low) between-subjects ANOVA was performed. The result revealed a main effect of reference price ($F(1,109) = 3.37, p < .05$) on selling price. Price estimates were lower when the reference price (NT\$ 500) was provided than when the reference price was absent. There was a significant main effect of self-esteem ($F(1,109) = .408, p < .05$). Compared to low self-esteem, the price of willingness-to-sell was higher when participant's self-esteem was high. H_1 was confirmed, but not H_2 .

EXPERIMENT 2

The purpose of experiment 2 was to test hypothesis 3 and hypothesis 4 whether aesthetic preference would have further impact on self-designed products.

Participants and design

One hundred and twenty-five students in a computer lab engaged in the experiment in exchange for a lottery coupon. Participants were assigned to one of the experimental conditions in a 2 \times 2 (reference price: yes vs. no \times aesthetic preference classicism vs. romanticism) between-subjects design. The experimental self-designed product was a bag.

Procedure and measures

The procedure of experiment 2 was the same as experiment 1. After finishing the self-designed process, participants were asked to fill out the aesthetic preference scale.

Independent Variable. A certain price, NT\$ 500 was tagged as a reference price whereas the no-reference price condition did not provide any price information. According to aesthetic preference, the measurement of romanticism and classicism (RC) was developed to identify people's aesthetic value by using a 20- item on 5- point scale [8].

Dependent Variables Participants were 123 undergraduates from a university who participated in exchange for lottery coupons. Regarding the willingness of sell of the self-designed product, 24 invalid samples were excluded because of unwillingness to sell. Overall, 91.6% of the participants (99) would sell their self-designed products. Participants were asked how much they would be willing to sell their self-designed products for based on the condition with or without a reference price.

Results and discussion

Aesthetic preference was divided into classicism or romanticism (median score = 3.18): classicism ranged from 0 to 3.18; romanticism ranged above 3.18. The means values for the price of willingness-to-sell in different conditions are shown in Figure 2. A 2(reference price: yes vs. no) × 2(aesthetic preference: classicism vs. romanticism) ANOVA was performed.

The result showed a main effect of reference price ($F(1,95) = 3.65, p < .05$) on selling price. Price estimates were lower when the reference price (NT\$ 500) was provided ($M = 594.60, SD = 391.39$) than when the reference price was absent ($M = 957.39, SD = 1342.97$). There was a significant main effect of aesthetic preference ($F(1,95) = 5.53, p < .05$). Compared to classicism ($M = 549.45, SD = 402.86$), the price of willingness-to-sell was higher when the participant's tendency was romanticism ($M = 1096.27, SD = 1442.60$). Furthermore, the reference price × aesthetic preference reached a significant interaction ($F(1,95) = 5.59, p < .05$). Hypotheses 3 and 4 were confirmed. Consumers with classicism would sell their self-made product for a higher price in the reference price condition than in the no-reference price condition. Additionally, consumers with romanticism would sell their self-made product for a lower price in the reference price condition than in the no-reference price condition.

GENERAL DISCUSSION

Summary

The purpose of this research is to specify the psychological situation for the over evaluation of self-designed products. In order to understand how consumers' participation in the production process creates value, it was used by actual production scenarios (e.g., a self-designed website) in the two experiments. The results showed that a reference price would have impact on the price of willingness-to-sell. Price estimates were higher when the reference price was not provided than when the reference price was absent. More importantly, the result is consistent with the IKEA phenomenon that consumers might overvalue their self-assembled merchandise. There was a significant effect of self-esteem on the selling price. Compared to low self-esteem, the price of willingness-to-sell was higher when the consumer's self-esteem is high. Furthermore, the finding showed a non-significant interaction effect of reference price and self-esteem. In experiment 2, the result shows that the consumer is influenced by their aesthetic orientation. Consumers with classicism would sell their self-made product for a higher price in the reference price condition than in the no-reference price condition. Additionally, consumers with romanticism would sell their self-made product for a lower price in the reference price condition than in the no-reference price condition.

Discussion and limitations

This research contributes to the research into self-design, co-creation and self-production. It demonstrates state self-esteem and aesthetic preference in the production process affect consumers' judgment when participating in their self-designed products. First, the effect of reference price represents an important factor for anchoring pricing which led to the selling price in the two experiments. The effect of state self-esteem impacts the selling price positively. Furthermore, when individual aesthetic preference was divided into two groups, the effect of reference price would adverse the result. It demonstrates that consumers with classicism are more conservative and goal-orientated, and they would forget to value the process effort and enjoyment when they decide to sell their self-designed

products [8]. In contrast, the importance of romantic mass-customization for self-expression will reflect people identity and they over-evaluation of their self-made products. Owing to technical problems, the finding from this research did not investigate how long did participants accessed their self-designed product. Future research could focus on the relationship between process effort and involvement.

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