Analysis of Willingness to Pay for Second-hand Clothing from the Perspective of Endowment Effect

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Abstract. The study analyzes the influential factors of the willingness to pay (WTP) in the used clothing market, and the endowment effect is taken into consideration. Endowment effect means that people tend to have a higher evaluation of what they own than before, and although endowment utility is a psychological behavior, it plays a very great influence in reality, and this influence cannot be ignored. This research first introduces the theoretical concept of WTA-WTP. WTA is the selling price the seller is willing to accept, while WTP is the price the buyer is willing to pay and describes which factors change the WTP. The WTP is the maximum price a consumer will pay, and the WTA is the minimum price a consumer will accept. When a consumer will trade for a good, it means that WTP equal to the WTA. The final factors influencing WTP can be divided into reference price, mental factors of purchase intention for basic physical needs, ecological concern and hedonism. The paper holds that all these factors affect buyers' willingness to pay from the perspective of endowment effect.

Keywords: Endowment effect, second hand clothing, willingness to pay.

1. Introduction

Endowment effect has been deeply integrated into market transactions. According to the research of Marzilli and Fuster, the best-known results in behavioral economics are the endowment effects, which have been used to support theories of reference-dependent preferences and loss aversion [1]. According to Holden and Tilahun, Thaler was the first to propose the endowment effect, which was connected to the fact that losses are weighted more heavily than profits and linked to prospect theory (PT) and loss aversion in situations free of risk. Giving up one good results in a higher loss of utility than obtaining the identical good would result in [2]. The second-hand clothing market with an ancient history and a large volume of transactions in modern times. According to the opinion of Manieson and Ferrero, with the opening of global market and the intense circulation of fast fashion from the 1990s, the trade of Second-hand clothing (SHC) has exploded in the twenty-first century [3]. The second-hand clothing market tend to be affected by endowment effect. There is a theory that can analyze the endowment effect's influence on this trade. The theory is WTP-WTA. Based on the study of Brown and Gregory, WTP is for "willingness to pay," which represents the highest amount of money that a person would be willing to spend to get a benefit, while WTA stands for "willingness to accept compensation," which represents the lowest amount of money necessary to give up the item [4]. The WTP can affect the endowment effect because if buyers have a stronger willingness to pay, they will be more receptive to sellers' pricing, thus reducing bargaining and increasing the impact of the endowment effect, and vice versa. The study will focus on which factors can affect buyers' WTP, and mitigate the impact of endowment effect.

2. Literature Review

Morewedge and Giblin explored the endowment effect, as stated in the research "Explanations of the endowment effect: An Integrative Review," could no longer be explained just by the conventional loss aversion hypothesis. When valuing a product, different heuristics and psychological ownership cause people to think about various pieces of information. rather than assigning different weights to the same information. This study also explored the seller's willingness to accept the sale and the buyer's willingness to pay not only depends on loss aversion but also on many other mental factors

[5]. Brown and Gregory analyzed why the WTA-WTP disparity matters. The study described the importance of WTA-WTP in the analysis of endowment effects. The difference between the WTA and WTP (Differences in pricing between sellers and buyers) also are influenced by sellers' and buyers' individual differences.

The above two researches focus on the buyer's and seller's willingness in the endowment effect, while some other scholars mainly describe which aspects affect the buyer's willingness in second-hand clothing markets (especially the clothes market). Syahriva et al. explored the second-hand clothing market in Indonesia. In the study of "No longer look down: Investigating second-hand clothing purchase in Indonesia", The writers described the buyers' willingness to pay are influenced by hedonism, purchase intention, ecological concern, price consciousness and actual purchase [6]. Wang et al. analyzed people's consumption behavior and psychological activities when purchasing second-hand goods based on empirical research of China. The results revealed that China's many young customers may face some obstacles to purchase second-hand clothing. The research focused on a social survey of buyers' motivation and willingness to buy used clothing. The different motivations for buying were counted and shown which motivations are dominating [7].

3. Analytical Framework

3.1. Reference Price

In the second-hand clothing market, sellers' loss aversion and ownership affect the endowment effect. The seller's willingness relates to willingness to accept the price offered by the buyers in WTP-WTA analysis. In this analytical framework, the focus is mainly on the factors specifically related to the buyers in the second-hand clothing market that affect their willingness to buy and therefore influence the endowment effect. The reference price is a very important factor in buyers' willingness to pay. Reference prices—comparison standards taken from the outside environment or memorized be used to compare buying and selling prices. Buyers will find reference prices from as many sources as possible, as this allows them to determine the true value of the product, thereby reducing the buyer's exposure to the seller's loss aversion and ownership. According to reference price theory, consumers will lower their claimed WTP when a good's genuine worth to them compares negatively to relevant reference prices. This means that when the buyer realizes that the price is higher than the reference price, and the seller's price is mixed with personal emotions, resulting in a slightly higher price. Therefore, reference price can effectively reduce buyers' thinking about the price which is provided by sellers. It is a factor that insulates buyers from endowment effects. In the second-hand clothing market, this factor is also a critical point, and buyers in the second-hand clothes market have been consciously looking for reference prices to reduce the endowment effect of sellers.

The existing research on China's second-hand clothing market provides a new perspective to observe the purchase behavior of young consumers [7]. The study calculates the main channels through which second-hand clothes are bought in China, and have shown the trading market by percentage, as shown in the Table 1. The Idle fish (a second-hand online trading platform similar to eBay) and the WeChat (an online trading platform) are the most popular platforms. It can be inferred that the popularity of online platforms is due to the fact that online platforms can provide more reference prices than physical markets. People can find more products sold by different sellers, and buyers can find if the sellers' prices are higher than other sellers. The buyer can bargain with the seller by referring to the price, thus making the seller lose confidence in a high price, which can reduce price because a lower price can be accepted. The seller will find that the product is valued highly only because of endowment effect, and there are many cheaper products than theirs in the market.

Table 1. Second-hand clothing trading platforms in China

Trading platform	Percentage
In-shores	20.88
Idle Fish	47.39
WeChat	21.28
Friends or relatives	7.63
Others	2.82
Total	100

3.2. Other Mental Factor

In the second-hand clothing market, many mental factors influence buyers' willingness. These factors include hedonism (hedonism refers to the pleasure of buying second-hand clothes), purchase intention (the purchase intention here is that buyers buy used clothing for several different reasons, such as to meet basic physical needs or because the product is useful and offers good value for money) and ecological concern. These psychological factors have an impact on buyers' willingness to buy, and thus the endowment effect is also influenced by these factors in second-hand clothing trading.

Some scholars adopt the five-point Likert score distribution (a statistical method in the form of a rating, where the higher the rating, the more the participants agree with the psychological motivation) to analyze the motivations and barriers of second-hand clothing shopping behavior. From the perspective of behavioral economics and consumer psychology, the determinants of people's shopping are multifaceted, including family income, commodity price, brand preference, shopping environment, psychological characteristics, advertising effect, and so on. Among these factors, changes in consumers' psychological activities or mental motivation are the most difficult to grasp [8]. At the same time, five-point Likert score distribution is conducive to promoting the balanced development of the second-hand trading market. In view of China's large population and small per capita share of various natural resources, promoting the development of the second-hand clothing market will help to reduce the cost of living, reduce resource consumption and achieve the goal of sustainable economic and social development [9]. This method also facilitates the statistics of each person’s mental motivation when choosing second-hand clothing.

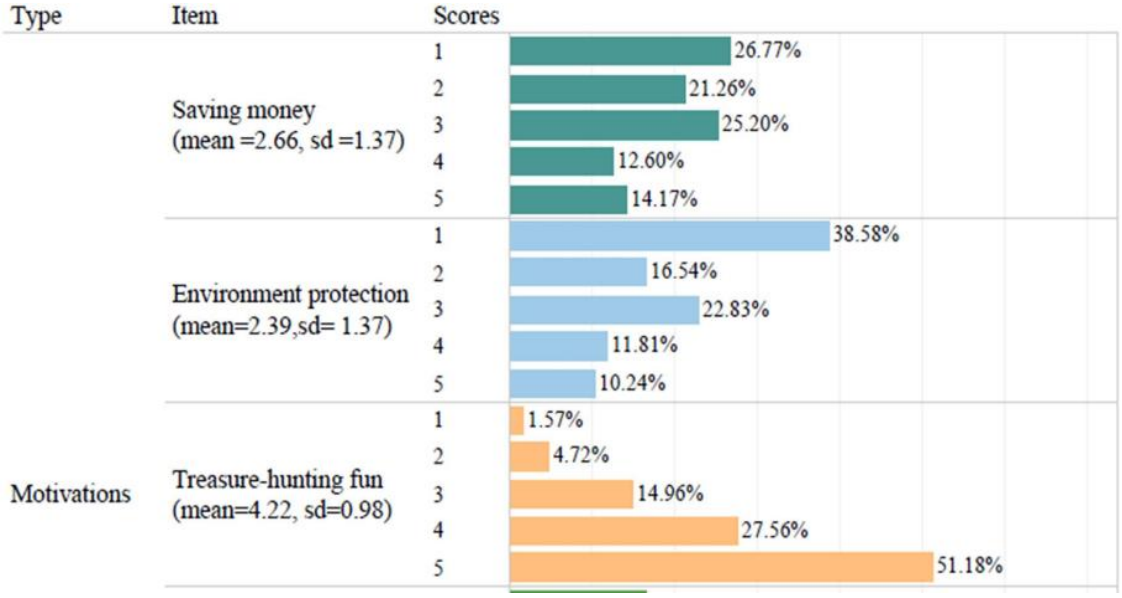


Figure 1. Motivations in buying second-hand clothing

According to Figure 1, the first motivation is saving money. This motivation can be seen as the mental factor of purchase intention for basic physical needs. The mean rating is 2.66, and the rating is only higher than environmental protection. This means that in the second-hand clothing market, basic physical demand is not a big reason for people who want to buy clothes. The buyers are not

influencing their willingness to pay to a great degree because of their basic physical needs. Therefore, this factor has a small effect on the endowment effect.

The second motivation is environmental protection. This motivation can be seen as a mental factor of ecological concern. People may be more willing to buy second-hand clothing because they consider that buying second-hand clothing is ecologically friendly, which will increase the endowment effect of sellers (as buyers will reduce bargaining). However, the average value of this factor is only 2.39, which is the least influential factor, indicating that people are unlikely to increase their willingness to purchase because of ecological conservation, so the effect on endowment effect is small. In fact, the Chinese government has been advocating balanced and sustainable development in recent years. Promoting the prosperity of the second-hand clothing trading market is an important means to promote the recycling of resources and reduce resource consumption and pollution emissions. Therefore, by guiding the general public to practice green consumption behavior, China's second-hand clothing trading market will have greater development space [10].

The third motivation is treasure-hunting fun. This motivation can be seen as the mental factor of hedonism. The pleasure in hunting second-hand clothing will increase buyers' willingness to buy, thus making them more willing to accept the seller's price, which will increase the endowment effect. The mean is 4.22, the factor having the highest rating, and this means that the factor of Hedonism influenced the buyers' willingness to pay to a great degree. Therefore, hedonism is a vital important factor that can make the impact of the endowment effect stronger.

4. Conclusion

This paper describes the buyers' relevant factors that can affect endowment effect in the used clothing market. These factors include the reference price, purchase intention, ecological concern and hedonism. When buyers access to the reference price, they can provide sellers with an authoritative and reasonable price, so that sellers can lose confidence in the inflated price given by their own endowment effect. Based on this bargaining behavior, the role of the endowment effect can effectively be reduced. In reality, people often use online second-hand clothing trading platforms to get reference prices. The psychological factors of buyers, among which the protection of the environment and the satisfaction of their basic physical needs are the least influential factors and hedonism is the most influential reference factor. People can experience the fun of treasure hunting in the second-hand clothing market, and this fun will enhance the desire to buy, which is not conducive to bargaining and will increase the influence of the endowment effect. All participants in the second-hand clothing market should find ways to address the growing influence of endowment effect caused by hedonism. This study provides a rational analysis for buyers and reveals the fact that the thrill of this treasure hunt puts buyers in a passive position when trading, thus promoting a balanced and sustainable development of the second-hand clothing market.

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