



Research and Application of the Endowment Effect

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Abstract. To analyze the endowment effect on society and education, the applications are studied by using the comparative research method and behavioral research method and have been summarized as the applications in various fields in the paper. Early studies of the endowment effect were conducted on willingness to pay and willingness to accept hypothetical questions in the absence of monetary incentives. It was often used in the framework of benefit and cost analysis of non-market goods such as environmental resources. In order to address hypothetical situations Knetsch and Sinden (1984) attempted to conduct an experimental study of willingness to pay and willingness to accept using real decision situations and cash incentives, which provided an opportunity to follow up on the behavioural and cost implications of the endowment effect. This provides a classic reference model for subsequent work on the behavioural and experimental economics of endowment effects. The results have shown that there is a cross-relationship in different topics and the endowment effect have a momentous impact to balance society's welfare, achieve better education accomplishment and make consumers make more reasonable and sensible behaviors in trading.

Keywords: Endowment effect · Behavioral economics · Society welfare · Market trading · Economic policy

1 Introduction

The endowment effect is the tendency for people to ascribe more value to items that they own compared to equivalent items that they do not own [2]. Numerous experiments have established that endowment effects are inherent tendencies in human behavior and preferences. Thus, the relative applications and society phenomenon are worth studying. In their study, the endowment effect was found to the stability and generalizability [3]. Furthermore, scholars researched the extended experimental studies of micro-preference bases and policy revolution [4]. However, there remains a need for an efficient method that can fill in the gaps of endowment effect application in society, education, and consumer behavior. The purpose of this study is to describe the further possible applications with more expansion in society, education, and social welfare field to adjust some daily behaviors and examine the accessibility of the endowment effect to be prevalent in daily life and have the greater and irreplaceable value. This essay is organized as follows:

Sect. 2 is the application of endowment effect on the student's academic and social behavioral; Sect. 3 focuses on the impact on consumers' behavior in trading brought by endowment effect; Sect. 4 is mainly about the endowment effect and ways to reduce the welfare lost strategically; the conclusion based on three applications in different fields which used the approaches including lab experiments and empirical studies, and the significance of the endowment effect in the future.

2 The Endowment Effect and Student's Academic and Social Behavior

This application is conducted by Charles [1], this chapter also referred to Possession Attachment: Individual Differences in the Endowment Effect 2011 [5], and summarize the application with interaction.

This experiment analyses the mechanism and influence pathways of the endowment effect triggering irrational behavior in the context of higher education and uses this to rationalize and guide the logic of students' irrational behaviors, providing a more reasonable basis and reference for the management of student affairs. With the penetration of the endowment effect into the social and educational fields, it has become a trend to use contextual questionnaires to test whether there is an endowment effect on an individual's behavior. To ensure the feasibility of the study, a combination of questionnaires and interviews was used, i.e., a questionnaire with contextual questions on the choice of trade-offs and bartering, combined with field interviews to explore the performance and differences in students' endowment effects.

The experiment also excluded multiple internal and external factors that influence the impact of the endowment effect on students and was categorized into different types of endowment experiments. Factor I included the psychological feelings of acquisition and loss, the psychological feelings of losing different items, and the influence of attitudes. These items respond to attitudinal dispositions in the choice of learning behavior and are classified as endowments for learning choice. Factor II, which includes the choice of the partner, the choice of the teacher, and the characteristics of interaction preferences, reflects students' attitudes towards the choice of friends and the influence of the emotional relationship between peers and students and is summarized as the endowment for interpersonal interaction [6]. The experiment was based on a combination of questionnaires and interviews based on this categorization, and the questionnaires were distributed in a way that considered the structure of the subject.

The results of the experiment are as follows: in terms of educational orientation, female students, rural students, humanities and social science students, and junior students all show a strong endowment effect and dependence on the status quo and tend to be more positive and affirmative in their choice and expression of educational objects and objects of interaction. Male students, urban students, nature students, and senior students are more confident and open to creative challenges, but overconfidence can easily lead to overestimation of their abilities and underestimation of the risks they face, which can lead to irrational behavior in behavioral choices and decision-making.

Therefore, based on the results of this experiment, the following recommendations can be made in the management of student affairs; on the one hand, students can create

an environment and use resources to promote formal and informal communication and interaction, through dormitory culture and club activities, to increase students' motivation to interact, reduce their information asymmetry and avoid the negative effects of the endowment effect. On the other hand, it is important to guide students in their attitudes towards interaction to avoid utilitarian biases affecting their motivation.

3 Endowment Effect and the Influence on Consumer's Behavior when Trading

This application is from Dr. Charles R's paper in 2005, "The Willingness to Pay-Willingness to Accept Gap, the 'Endowment Effect'" [1]. And learned from professor Peiwu. C's latest research "Research on the influence of consumers' Pre-Purchase Ritual Behavior on Endowment Effect" [7]. The endowment effect is prevalent in numerous economic fields not limited to microeconomics and real market trading. In *The Willingness to Pay-Willingness to Accept Gap, the "Endowment Effect," Subject Misconceptions, and Experimental Procedures for Eliciting Valuation* the author mentioned [1], "Experiments were conducted using both lotteries and mugs, goods frequently used in endowment effect experiments. Our results call into question the interpretation of observed gaps as evidence of loss aversion or prospect theory. Further evidence is required before convincing interpretations of observed gaps can be advanced, especially to illustrate the further specific topic."

This application breaks away from the limitations of empirical research on consumer rituals, extending the study of rituals from a specific holiday scenario to a consumer's everyday experience. In previous studies, scholars have developed the following theory about consumers based on the definition and nature of the endowment effect including that people suffer more from losing an equal amount of the same product than from gaining an equal amount, which means that consumers have a different degree of a negative and positive experience when they lose a certain amount of money than when they gain the same amount, with their negative experience being greater than their positive experience. This means that the negative experience is greater than the positive one, i.e. loss aversion. In a buyer-seller relationship, the seller's "loss" is the loss of his product, while the buyer's "loss" is the loss of his money, and because of the presence of loss aversion, both buyers and sellers would normally seek to mitigate their behavior. The seller raises the price of the product and the consumer, on the other hand, lowers the maximum price paid. The main effects of consumer rituals and endowment effects, the relationship between consumer rituals and expected emotions (expected regret of not buying and expected guilt), and the relationship between consumer rituals and psychological ownership are investigated, as well as the multiple mediating effects of psychological ownership and expected guilt and expected regret. The paper also examines the role of consumer rituals in the endowment effect in terms of product characteristics and the moderating variables.

The endowment effect is the difference between the minimum price the seller is willing to accept and the maximum price the buyer is willing to pay in a commodity transaction. In the current marketing world, many businesses want to take advantage of the endowment effect of consumers by allowing them to experience the product for

free and interact with the product through a stream of experiences at the same price, to increase their willingness to pay a premium and reduce the endowment effect.

The role of the psychological ownership mediation mechanism in the endowment effect of consumer pre-purchase rituals is regulated by the type of product and the boundary conditions for the role of consumer rituals are clarified. High levels of consumer rituals generate higher psychological ownership of pleasure products than utility products, leading to higher voluntary consumer premiums.

4 Endowment Effect and Reducing the Society Welfare Lost

This application is conducted by Vashishta. H in 2020, How the Endowment effect works in marketing. The endowment effect causes the owner of the commodity to overvalue the commodity, so that the selling price of the commodity in economic activity never agrees with the buying price, leading to the cessation and slowing down of trading activity. The imbalance in the competitive market system leads directly to a weakening of the market's role in guiding and regulating transactions, which results in goods being sold to consumers at inflated or low prices [8]. The reduction in consumer surplus leads directly to an increase in the loss of social welfare and to a sluggish functioning of the market. Thus, the key to reducing the social welfare loss as much as possible is to increase the consumer surplus and producer surplus, by promoting the economic revolution and carrying out the economic policy adjustment.

The empowerment effect can lead to a preference for the status quo, which can be detrimental to the development of an economy in a period of rapid growth. When a company encounters a bottleneck in its development, it must divest itself of these businesses and regroup its strengths in order to strengthen its competitiveness. However, companies in a period of rapid growth are often afraid of change because of the endowment effect. This is the dilemma faced by companies around the world today, as they are reluctant to change their business strategies in the face of bottlenecks in their business development due to the endowment effect, resulting in the emergence of a lot of outdated companies. These enterprises are not only uncompetitive in the face of strong international market competition, but also take up a large part of social capital and human resources. Thus, leading to a loss of social welfare.

5 Conclusion

Realizing the phenomenon of the endowment effect has already been a significant milestone since people can use it in many aspects of life and attribute more value to it. Even though there is a negative influence on the overall impact, "it restricts people from making profitable decisions in life; it leads potential customers in placing values for products and services irrationally [9]." Still, as mentioned in the three applications in this paper, the endowment effect has different impacts on education, consumer behavior, and society welfare separately.

As for the application of education, it helps to reduce students' information asymmetry and avoid the negative effects of endowment effects. On the other hand, students

should be guided in their attitudes towards relationships to avoid utilitarian biases affecting their motivation. As for the application of the consumer behavior, consumers are recommended to keep the public and altruistic logic of the consumer approach, which promotes the maximization of the total shared value of both, reduces the endowment effect, and has a positive effect on the emotional attachment between consumer and business, brand and product, and the consumer's perception of ownership of the goods. As for learning from the endowment effect to reduce welfare loss, the enterprise can learn to make the strategic changes, and society brings the governmental adjustment, then achieve the balance of the society's welfare maximization for both citizens and governments.

The endowment effect would be much more beneficial in the future to fit in more fields and make the problems solved in many fields. When people summarize the rules and form the regulation, there is a way to make use of it and get maximized value from them.

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