

Endowment Effect's Impact on people's economic decisions

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Abstract. This paper focuses on the endowment effect, a psychological bias first used by Nobel Prize-winning economist Richard Thaler in 1980. After completing extensive online and offline documentary research, I examined the psychology of the endowment effect in this paper. Additionally, I considered the perspectives of both buyers and sellers to explain why the endowment effect matters in terms of economic behaviors, and offered a few countermeasures to the bias, avoiding people from suffering losses as a result. I explored three different endowment effect applications, including the confiscation of farmers' land, the high cost of second-hand goods, and the use of free trials, based on my field research in rural China and the questionnaires and interviews I conducted. Looking at a real-world example in society, I identified the underlying causes of these economic decisions related to the endowment effect and then offered a few solutions that would benefit both sides of the equation. In the end, I came to the conclusion that a range of economic actions can be explained by the endowment effect. While sometimes it stands in people's way in making reasonable economic decisions, some individuals can actually utilize the endowment effect in order to make a profit.

Keywords: Endowment effect, Behavioral economics; Bias; Financial decision.

1. Introduction

A professor of economics once performed a sociological experiment near a lottery shop. She asked every person who has just purchased their lotteries a question "Would you sell your lottery ticket twice that you paid for it?" According to mathematical analysis, accepting this offer is clearly favorable because there is a very small possibility that purchasers would actually win the ticket. However, 78 percent of those surveyed declined to make the transaction, indicating that they were too concerned about already possessing the winning ticket.

It appears that the endowment effect is the only explanation for this behavior in this instance. The endowment effect, as described by Richard Thaler, is an emotional bias that leads people to value an owned thing higher than its market value, frequently erroneously. This emotional bias can be applied to many different economic circumstances and has a significant impact on people's decisions. The endowment effect can be advantageous for some people while causing losses for others, such as those who choose not to sell their lottery tickets at a higher price. In general, the endowment effect plays a significant role in regulating people's economic activities, but there are ways to take advantage of or combat it.

Past papers about the endowment effect focus on theoretical analysis and model derivation of this heuristic bias. But in this paper, I'll examine several economic scenarios where the endowment effect might be relevant and determine how special a role it plays in each. My research is simple to understand and directly beneficial to the general public because it is based on economic choices made by individuals every day. This will also lead to policy implications since the government rarely took the endowment effect into consideration previously, which may result in a loss in their budget. When business owners understand how important this bias is, they may change their policies about free trials and sales, which would increase their revenues. Additionally, I applied the endowment effect to various stakeholders in this paper and figured out ways to take advantage of or avoid it from different perspectives, which are of a great reference value. I demonstrate the endowment effect from a micro perspective, persuade readers of its prevalence in real-world situations, and offer strategies for overcoming this bias.

2. The psychology behind the endowment effect

People must first comprehend the underlying causes of this emotional bias in order to apply the endowment effect to diverse scenarios and use it in terms of transactions. I divided the root causes of the endowment effect into three categories: loss aversion, ownership, and status quo bias after looking at other heuristic biases and consulting specialists in behavioral economics and psychology.

2.1 Loss Aversion

The endowment effect's empirical phenomena have thus always been associated with a loss-aversion explanation: Giving something up results in a higher loss of utility than obtaining it does. Or, to put it more simply, losses overshadow gains. People frequently exhibit this psychological bias in daily life, becoming more sensitive to losses in a variety of situations, including product trade and financial transactions.

The endowment effect may cause someone to overvalue an item. Shoppers desire to prevent a loss since they are much more sensitive to price decreases than price increases, prompting them to raise prices to earn equivalent benefits. In fact, a seller whose output is very elastic is more likely to increase the price of his goods even when he has a deficit in his account as his business progresses, oblivious to the fact that the amount he is to sell will be drastically reduced in this way. Due to loss aversion, there is a growing discrepancy between what vendors are ready to accept as payment for their goods and what buyers are willing to pay.

2.2 Status quo bias

According to the psychological inertia theory, unless given a strong incentive to do otherwise, people prefer to maintain the status quo in their life, including keeping possession of the things they already own. In part because of this, people are reluctant to trade in their possessions for money or things of an equivalent value. If the inducement isn't substantial enough, they won't agree to the agreement. Due to the endowment effect and the bias toward maintaining the status quo, the contingent value of public goods is severely skewed. On the one hand, the amount which potential consumers are willing to pay for a certain subject is kept low due to the endowment effect. On the other hand, the asset the person now possesses or has access to keeps estimates of the price he is willing to accept high. The discrepancy between the two is caused by the combination of the endowment effect and status quo bias.

2.3 Ownership

Items that a person already owns are valued higher than those that they do not. Since the bulk of people in society has progressively formed emotional bonds with their own possessions, this was applicable to them. Whether the item in question was a gift or a purchase doesn't matter; the effect still applies. People won't trade goods unless the buyer pays an extraordinarily high price, and this impact will be more pronounced if the seller has the item for an extended period of time, with a few exceptions depending on the sort of item.

Surprisingly, either simple touch or imagery that encourages touch can boost a buyer's or nonowner's perception of ownership. For legal owners or sellers of an object, touch can also boost perceived ownership.

3. Several scenarios the endowment effect can be applied to

After gaining an understanding of the psychology underlying the endowment effect, we looked at its applicability to various situations and the definite part it plays in them. People will be more cautious when making transactions if they are aware of how the endowment effect affects people's economic decisions. This will help them avoid suffering a loss. People may easily ignore the endowment effect since it has primarily intrinsic and qualitative effects, attributing all losses to other quantitative factors.

3.1 Product Trading

The endowment effect can occasionally lead to market inefficiencies and discrepancies in price between buyers and sellers. This is due to the fact that owners believe their own possessions to be significantly more valuable than potential buyers do. For instance, owners of collectible objects who appreciate their possession more than any market value may pass up the chance to sell even when presented with an offer that is genuinely above market value. In reality, most of the time when we sell something, we will charge more than what we would prefer to spend for the same item. When items are price elastic, this bias could lead to a drop in the quantity vendors ultimately sell, resulting in a higher loss.

When individuals exhibit the endowment effect, their decision-making process involves a mental shortcut known as a heuristic bias. However, this effect can be reduced by consciously increasing brain activity in this circumstance. In contrast to less experienced traders, experienced traders display decreased right anterior insula activity while selling, but no differences in nucleus accumbens or orbitofrontal activation. Additionally, the endowment effect is mediated by experience through insula activation. Similar outcomes are seen when novice traders are given incentives to develop their trading skills.

3.2 Financial Investment

Owners frequently overvalue things because of emotion or a perceived benefit, as was already established. This can then result in bad investing and financial decisions. Owners of investments may depend too heavily on their emotional biases and ignore what the most recent statistics indicate.

Investors have repeatedly demonstrated a reluctance to sell underperforming stocks they currently own and a reduced willingness to trade up to a similar but performing stock because their existing valuation is still significantly higher than this. They constantly believe that no matter how well their own stock is performing on stage, it has the potential to be in a better position and find it difficult to sell.

The endowment effect may indirectly affect people's financial choices. Risk avoidance tendencies cause issues with contracts and agreements. The principal-agent connection and the endowment effect have an impact on the political and legal context that shapes our culture, and culture has an impact on how we perceive risk.

4. The endowment effect's importance

While the impact of the endowment effect may seem trivial, in the long term, it might have other systemic effects. The endowment effect might encourage people to overpay while making purchases, resulting in additional expenses that accumulate over time. Each loss can seem insignificant, but when they mount up, the effects on people's lives will be profoundly devastating. In the meanwhile, if we overprice our used goods to the extent that we cannot sell them, this bias can result in opportunity costs or gains that we miss out on. Any developer or seller would be inefficient if they totaled up all the wasted opportunity costs, which might have a catastrophic effect on their business, a person's fortune, or, more critically, their health.

The endowment effect and other behavioral biases that seem unrelated to one another may also co-evolve if they work together to correct errors that any one of them alone would have caused. For instance, the winner's curse and the endowment effect may interact to influence economic behaviors. These two biases may inherently function in concert in all the economic scenarios listed above, driving the price of some goods much higher than what potential customers can tolerate.

5. Ways to counter the endowment effect

It appears that in my prior writings, I solely discussed the potential losses caused by the endowment effect. Like other emotional biases, the endowment effect can be minimized.

The endowment effect is a manifestation of a widespread psychological bias that favors the status quo over a better future. This mental shortcut, where System 1 in our brains performs more, is what we use to arrive at a conclusion. This is combined with status quo bias, and we may find examples of both in the strength of our behavioral routines, in our preference for the well-known over the unfamiliar, or in the advantage the incumbent politician enjoys over a challenger. We need to engage in additional brain activities rather than relying just on our instincts in order to avoid being influenced by the endowment effect.

People can pretend something doesn't belong to them if they are having trouble deciding on something they want to get rid of. This can make their connections to it weaker. It's a good idea to keep in mind the reasons they want less clutter if their resolve is weak. In fact, the endowment effect is diminished or eliminated by modifications that narrow the difference between valuations and reference prices.

6. Specific applications of the endowment effect

The confiscation of farmers' land, the high cost of used goods, and the use of free trials are three examples of the endowment effect that I will focus on in this section of the paper. I will provide thorough background information and analysis for each application before offering solutions that will allow both parties to profit from the circumstance.

6.1 Expropriation of farmers' land

The Chinese government trades the farmers of lands and houses they currently live on with money and resettlement housing to utilize lands in rural areas for further construction. However, no matter how much money the government pays, farmers are unwilling to make the swap, therefore this massive construction project around China is always hampered. The farmers have strong emotional attachments to the land they possess.

Take the Shandong highway as an example. In order to improve local traffic, the government intends to construct a highway on the property owned by farmers in rural Shandong. The project is expected to require the relocation of 26844 people or 5369 households. When the government dispatch attempted to resolve this matter with the local farmers, they encountered unexpected challenges. Barely 210 homes had to move after multiple changes to the route's design and road narrowing, and only half the number of people expected (13813) had some of their lands requisitioned. According to the several interviews I conducted with farmers, this predicament is in part brought on by the emotional attachment's farmers have to the land that provides them with food and their unwillingness to relocate to a completely new environment. This will essentially hinder the government from moving through with its initiative, costing the government more money.

There are ways to lessen the impact of this. An excellent place to start is by integrating residents of the same village. Farmers' inability to leave their neighbors is one of the reasons they stay in their familiar surroundings. Their products should be allowed to be grown in approved locations, and the government should allow each of them a small plot of land they can manage, allowing them to make a living by selling their produce in nearby markets. In this way, they won't have to be concerned about not having ways to survive in a modern city. To make up for the loss of their farmland and homes in rural areas, authorities should allocate money from the government budget to these farmers and pay them on a regular basis. Farmers may easily lose a one-time payment if they are not skilled at making financial investments. Additionally, the amount of money used to assist them on a monthly basis will be adjusted for inflation. The government should provide the community with essential infrastructure (such as grocery stores and exercise facilities) in the resettlement housing area. This can raise farmers' overall happiness levels and facilitate their adjustment to their new surroundings. The organization in charge of constructing on expropriated land should contribute some of the additional funds. It is their proposal to utilize the land, so they have the obligation to support farmers' living conditions.

6.2 The high price of second-hand cars/houses

The pandemic epidemic has had a negative effect on the global economy, driving up the cost of homes and automobiles. Because used cars are purportedly less expensive than new ones, many individuals choose to buy them. In this situation, old automobiles become inferior items and there will be a stronger demand for them because people's income levels are relatively low. The endowment effect, however, causes sellers to form an emotional attachment to their used goods and consistently overprice them.

The high cost of used cars can be partially explained by the reference price theory. Both buyers and sellers look for reference pricing that will allow them to maximize their satisfaction with the transaction; Buyers are more inclined to pay attention to the blue book value of \$500 than sellers of old cars who, to the appraisal of a car mechanic, value it at \$700. Because owners have had their automobiles for a while and are generally satisfied with the way they work, they will overprice the vehicle, which will turn away potential purchasers.

The government should provide a subsidy for such a market; if required, they can raise the income tax rate to reflect this since encouraging the second-hand market reduces material usage over time, easing problems like material scarcity and pollution. This transaction goes more smoothly if the government fills in some of the shortfalls between the seller's asking price and the buyer's acceptable price. For this, the government can also create standardized markets, which would reduce transaction costs and hence lower the cost of used items. Although there are currently a number of government-owned second-hand markets, there are still intermediaries that profit from price discrepancies because of a lack of administration. Markets should think about enabling sellers to reuse particular goods, such as cars and houses, a few times so that they will be more likely to complete the transaction and drop the price concurrently. Since the endowment effect stands in the way, preventing sellers to offer an agreeable price, this action will give them a sense that they do not have to part with their belongings.

6.3 The employment of free trials

Offering a free trial of a product is an excellent strategy for vendors to increase user retention because people are more likely to treasure what they own. Since free trials are offered, products are more likely to be accepted by prospective consumers who will find it difficult to discontinue using the product once the trial has concluded. In addition, after utilizing the free trial, customers are more inclined to give a product a higher rating than they were before.

For instance, visitors are free to touch and use each device in Apple's showroom for as long as they like. Staff members are instructed not to push customers to leave, and the showroom itself is welcoming and open to foster a sense of belonging. People of all ages are constantly packed into Apple stores throughout the world, and in 2021, Apple's total revenue reached a high of \$365.8 billion. It is partially because of Apple's offering the vast majority of "free trials" in the retail store that Apple has achieved such great success.

When marketers rely too much on free trials, they run the danger of losing money because many people choose not to purchase the product after trying it out for free or regularly consume free things, particularly food. In these situations, firms should provide fewer free trials and allocate more resources to other initiatives, such as product innovation. They should do a thorough client evaluation and predict the number of free trials that should be offered in order to maximize their revenues by utilizing statistics from previously sent out free trials. Markets should provide customers to request a refund within a specific timeframe after acquiring certain pricy products for the benefit of customers (cars, televisions). Customers won't be persuaded by free samples or end up overspending on inferior services as a result. However, it is necessary to inspect the merchandise that is being returned.

7. Conclusion

Many economic actions can be explained by the endowment effect. Loss aversion, status quo bias, and people's innate tendencies all play a role in the psychology of the endowment effect. When people

assess their choices, this qualitative bias may appear to be inherent and simple to ignore, but it truly affects people's decisions in the areas of product trading and financial investing, among other systemic impacts. People can use System 2 thinking, which is slower and necessitates more conscious mental effort when making decisions in order to prevent losses from the endowment effect.

The three examples I provided show that the endowment effect can occasionally prevent us from reaching prudent financial judgments. Second-hand object dealers would have benefited more from transactions if they had not developed sentimental attachments to their possessions, pricing them within a reasonable range. On the contrary, some people can profit from the endowment effect. Stores that provide free trials see an increase in sales because those who try the products have an attachment to them and are less inclined to return them.

This paper has instructive significance on people's behaviors. People should always consider the endowment effect while making economic decisions and should exert more mental effort to think things through. I have shown multiple situations where people may be influenced negatively by the endowment effect, alerting them to put this emotional bias into consideration. They are considerably less likely to lose money after conducting extensive statistical analysis as opposed to following their gut. This paper also seeks to educate readers on the importance of exercising greater critical thinking when making decisions, especially when they are economically significant. After reading this work, readers will probably pay attention to other behavioral economics heuristic biases, learn about their applications, and use them in their future careers.

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