

An Analysis of Endowment and Its Applications in Behavioral Economics

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Abstract: The endowment effect has many applications in behavioral economics and consumer psychology. This research demonstrates the association between the endowment, used car pricing, and takeover premiums based on existing literature and statistical data. This can help the used car companies' managers set an operable price for the buyers to improve turnover. At the same time, the article also discusses the application of the endowment effect in employee management. The result shows that the endowment effect means that when people own an item, regardless of its market value, they always overestimate its value. The seller's pricing in the used car market is influenced by the endowment effect, resulting in a higher price than the reference point (a neutral reference price formed by time of use, mileage, and original price). Endowment effects in M&A (mergers and acquisitions) behavior have a significant positive explanatory effect on M&A premiums. In addition, companies can also use the endowment effect appropriately when managing employees to increase employee loyalty.

Keywords: endowment effect, used car pricing, takeover premiums, reference price

1. Introduction

The source of merger and acquisition premiums has always been a concern for academia and industry. Early research believed that the acceptance of the M&A premium was a rational choice after the merging company made a rigorous judgment on the market situation and the target company, such as the synergy effect and market timing theory. In recent years, with the development of behavioral economics and psychology, more and more researchers have begun to explore the irrational factors in M&A behavior, such as overconfidence, free cash flow, reference point dependence, and anchoring effect, and have paid more attention to the psychological factors in previously neglected M&A behavior. At present, literature on the interpretation of M&A premiums mainly focuses on studying the impact of the characteristics of the main M&A company and its decision-makers on M&A premiums. Looking back at the corporate finance field, where corporate mergers and acquisitions belong, there are few studies on the endowment effect and only relevant literature on the application of the endowment effect in the field of corporate law. There is little discussion on the mechanism of the endowment effect to generate mergers and acquisition premiums.

Horowitz, McConnell, Tun, el and Hammitt think that the endowment effect is universal and stable, but it is still only proven from the population group or meta-analysis of the questionnaire, lacking the support of more accurate factual data. In specific markets, such as the second-hand car market, does

the endowment effect also exist generally and stably? Mandel pointed out that the endowment effect will be minimized when the transaction demand between buyers and sellers is high, through the trade experiment of wine and CD [1][2]. Therefore, transaction motivation is an important factor affecting the endowment effect. In the second-hand car market, the seller should have sufficient transaction motivation, so it should choose to set a low price to facilitate the transaction. However, will the seller also have an endowment effect at this time? What factors will affect its existence? Based on previous research and statistical data, this study shows a connection between endowment, used automobile prices, and takeover premiums. Managers at used car dealerships may find it easier to determine a fair price for purchasers and increase turnover as a result. The article also covers how the endowment effect is used in staff management at the same time.

2. Essence of Endowment Effect and the Reference Dependence

Endowment effect means that when people own an item, regardless of its market value, they always overestimate its value [1]. When people have goods, they are less willing to exchange them for equivalent cash, or if people's willingness to pay is less than people's willingness to accept, this endowment effect can be clearly shown. Simply put, once people have ownership of an item, they will attach greater importance to it. This is especially true for items that are usually not sold in the market, such as symbolic, emotional, or commemorative items. In general, the endowment effect and status quo bias. (status quo bias) can be attributed to people's loss aversion characteristics. Loss aversion refers to the fact that the pain caused by equal losses is greater than the pleasure caused by equal returns, and is an important concept in prospect theory. If there is loss aversion, WTA (Want To Accept) and WTP (Want To Pay) may be asymmetric. This asymmetry of loss costs and benefits is also the evolutionary basis for the formation of the psychological mechanism of endowment effect benefits. When people give WTA, the essence is to give up the item in their hands and propose the lowest asking price for it, so the item is valued in the context of loss; When people give WTP, the essence is to obtain a certain item and propose the highest asking price for it, so the item is valued in the context of income. Because people are more sensitive to losses than gains, WTP is usually smaller than WTA, and the endowment effect occurs.

Reference dependence refers to the fact that people's valuation of goods is often influenced by reference points and loss aversion. Kahneman and Tversky pointed out that individuals often make decisions based on reference points, and the difference between the final result and the reference point directly affects people's decision-making behavior. Reference dependency can be applied to any decision involving risks and uncertainties, such as labor supply, privacy protection. An important concept in reference dependency is anchoring, which refers to people using a certain number as a reference point to influence their final value judgment. For example, when people purchase a car, the price of the first car displayed by the car seller will form a reference point, which affects people's judgment of the value of the car displayed by the seller later (relatively cheap or relatively expensive). Therefore, in the second-hand market, the initial price at which people initially purchase goods often forms an anchor, which affects the final selling price of the goods.

3. Endowment Effect in the Used Car Pricing

The pricing problem in the second-hand car market is essentially a study of the seller's behavior. Although the seller initially purchased the car as the buyer, they would treat the purchase price at that time as the original value of the car, and during the use of the car, this value gradually decreased, ultimately forming their determined second-hand car price. Kooreman, Haan, Kihm, and Vance validated this process and pointed out that vehicle usage time and mileage are the main influencing factors for value reduction. When people sell their own vehicles, their pricing will also be affected

by reference dependence and the endowment effect. Therefore, the hypothesis formed in the article is as follows: when the seller sets a price for a used car, the original price will be used as an anchor, as the value of the car will gradually decrease with the increase in the car's usage time and mileage. Therefore, the seller will rationally convert the vehicle value based on the car's condition, forming a neutral reference price for the used car as a reference point. At the same time, because of the ownership of the vehicle, the seller will be affected by the endowment effect when pricing in the face of losing the existing vehicle, which will make the seller overestimate the value of the used car relative to the neutral reference price and finally form the used car pricing [2].

The results are as follows:

- (1) In the second-hand car market, the seller will choose a reference point when pricing, which is a neutral reference price based on usage time, mileage, and the original price of the car.
- (2) The seller will believe that both usage time and mileage will have a certain degree of conversion on the value of the car.
- (3) The seller's endowment effect will distort the neutral reference price, thus making the seller choose to set a relatively high price.

4. Endowment Effect in the Context of Corporate Mergers

The merger and acquisition premium is the proportion of the transaction price exceeding fair value. For target companies that operate normally but are not in financial crisis, they usually only accept merger and acquisition offers when the acquiring company offers a sufficiently satisfactory price, so merger and acquisition premiums are common. From the research literature on M&A premiums, it can be seen that there is always a portion of M&A premiums that cannot be explained by the rational reasons of both parties. From the perspective of the endowment effect, when target company decision-makers improve their psychological valuation due to the endowment effect, according to the classic M&A game model, higher valuation will also promote the formation of a higher M&A transaction price and M&A premium. [3][4][5][6][7].

The endowment effect can explain the M&A premium and has a positive impact on it. Companies in emerging industries such as IT, healthcare, and the internet have the following characteristics: 1) They are mainly start-up companies, with a lower overall age of leadership and deeper emotions towards the company in decision-making; 2) They usually master a core technology with industry competitiveness, possess a certain monopoly position, or have a certain degree of irreplaceability in a certain segmented field; 3) The proportion of intangible assets in total assets is large, and it is not suitable to use traditional methods for company valuation. Guo Taiyue pointed out in his research on the valuation methods for mergers and acquisitions of internet companies that internet companies have more intangible assets as their core value compared to traditional enterprises, making their valuation more difficult. To sum up, compared with traditional industries such as manufacturing, companies in emerging industries will have a more obvious endowment effect when they are merged and have a greater impact on the merger premium.

The research results show that the endowment effect in M&A behavior has a significant positive explanatory effect on the M&A premium. Therefore, this paper suggests that when analyzing the M&A value of potential target companies, the main acquirer can start from the strength of the endowment effect of the target company's decision makers and focus on the endowment effect that may affect the M&A premium in addition to the rational M&A value, such as the synergy effect, so as to consider the M&A cost more comprehensively. In addition, the existence of the endowment effect has brought about the difference between WTA and WTP, making it impossible to carry out the transaction that could have reached Pareto improvement, thus causing a certain degree of efficiency loss. Therefore, for the makers of industrial M&A policies, weakening the impact of the endowment effect in various ways will bring about more effective industrial integration.

5. Discussion

Endowment effect is also actually a kind of ownership effect. People tend to possess what is beneficial to them, and once they possess it, they are unwilling to lose it. The endowment effect reveals the psychological law of employees. Grasping this psychological law will help improve the methods of enterprises to enhance employee loyalty. so-called "If you want to take it, you must give it first". If you want to take the loyalty of employees to the enterprise, you must give them gifts first. These gifts need to be preferred by employees, and it is better to be unexpected. At this time, the endowment effect is most obvious. When needs are met unexpectedly, ordinary people have a psychology of repaying the suddenly increased benefits, which makes them feel a kind of tension and motivation to repay. In order to eliminate this tension, employees tend to take rewards The actions have objectively cultivated employees' loyalty to the company [8].

Employee loyalty is an important indicator reflecting the level of human resource management in a company and also an important factor restricting the company's healthy development. Only with first-class employees can first-class products have first-class benefits. Therefore, Southwest Airlines has always believed that employees are the first and customers are the second, because only when employees are satisfied with the company can they provide satisfactory services to customers. Only when employees are in a friendly work environment can they naturally create a pleasant atmosphere for customers. Only when employees feel a sense of achievement or are timely motivated can they have the creativity to serve customers and bring new ideas. The key to enhancing employee loyalty lies in enhancing their "stickiness" towards the company. The higher the stickiness, the higher the cost of leaving, and the less willing they are to leave.

6. Conclusion

In this essay, the author chooses the endowment effect to illustrate these three applications: used car pricing, takeover premiums, and employee loyalty. The paper provides the analysis, the mechanism, and the implications of the three applications. As for the endowment effect reflected in the field of second-hand cars: (1) In the third-party evaluation of the second-hand car market, it is not only possible to use a single indicator for value conversion but also to use a variety of factors (such as service time, mileage, etc.) for comprehensive judgment so as to give the seller and buyer a suitable judgment standard. (2) In second-hand car transactions, the seller should be more rational in pricing, based on objective reference points, in order to promote the completion of the transaction. This is conducive to the increase in transaction volume in the second-hand car market and the improvement of resource recycling efficiency. The endowment effect reflected in corporate M&A behavior has a significant positive explanation for the M&A premium, and this effect is more important in emerging industries. For the reflection of the endowment effect in improving employee loyalty: the endowment effect reveals the psychological law of employees, and enterprises should make good use of this psychological law. At present, the article is mainly based on the existing literature and the previous author's experimental results. In the future, it will consider the analysis of the endowment effect in other special situations in second-hand car transactions for in-depth analysis.

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