

The Anchoring Effect in Consumption: A Case Study

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Abstract. The anchoring effect influences consumers' willingness to pay and their perception of prices through initial prices or reference values, often resulting in irrational decisions. This study aims to explore how merchants leverage anchoring to influence consumer behavior, using case analyses in restaurant pricing and home purchases, and to examine how consumers can counteract such tactics to make more rational choices. Key findings include: (1) In restaurants, artificially inflated original prices can establish a "discount anchor," increasing consumers' willingness to pay a premium; however, this effect is moderated by the type of dish; (2) In real estate transactions, sellers use high initial offers to raise final sale prices through a "price negotiation interval compression" mechanism, and the buyer's experience level negatively moderates this effect. This study is the first to systematically compare the differential manifestations of the anchoring effect in service consumption and asset trading. It provides empirical support for behavioral pricing theory and offers targeted policy recommendations for consumers (identify anchoring traps), investors (optimize pricing strategies), and regulators (improve price disclosure mechanisms).

Keywords: Anchoring effect, Behavioral Economics, Consumer Psychology.

1. Introduction

The definition of anchoring effect: "The anchoring effect is a cognitive bias that describes the common human tendency to rely too heavily on the first piece of information offered (the "anchor") when making decisions. During decision making, anchoring occurs when individuals use an initial piece of information to make subsequent judgments. Once an anchor is set, other judgments are made by adjusting away from that anchor, and there is a bias toward interpreting other information around the anchor" [1].

About the development history of the anchoring effect: "The anchoring effect was first published in 1974. Amos Tversky and Daniel Kahneman published a paper in the journal *Science*, which first proposed the anchoring effect (Anchoring Effect) the concept. Subsequently, in 1994, Chapman and Johnson proposed the Selective Accessibility Model, which repeated and reinforced the meaning of the anchoring effect. Successively, in 1999, Mussweiler and Strack determined the anchoring effect and activated the information by studying the anchoring effect model. In 2001, Mussweiler and Strack further explored the mechanism of the anchoring effect, and the experimental anchoring effect would trigger the hypothesis. In 2003, Mussweiler and others studied the subconscious anchor effect and found that the anchor effect can occur subconsciously. Later, in 2018, Chen Siyuan's research explored the impact of different anchor characteristics and presentation time on the anchoring effect and found that the reactions presented by the two were different. Finally, in 2023, Chen Siyuan's research continued to explore how the anchoring effect is generated and how it works and found the prerequisites for the attention of the anchor point [2].

By sorting out the theoretical development process of anchoring effect, it can be seen that the impact of anchoring effect is not only in people's lives, but also in the social economy or the operation of enterprises, exploring the application in different fields and discovering the changes in decision-making.

The research purpose of this article is to reasonably understand what the anchoring effect is through online materials and references, and to understand the role and causes of the anchoring effect.

At the same time, I also want to use my understanding of the anchoring effect to learn how to deal with the anchoring effect effectively.

2. Restaurant Menu Design

2.1. Case Description

When people go to a restaurant for dinner, they decide what to eat through the menu. On the cover of the menu is a particularly expensive main course, with a steak priced at 500 yuan. However, the customer didn't want to pay a high price, so he looked through the menu and found that the price of other main dishes was relatively low, such as 100 yuan pasta or 150 yuan roast chicken. Finally, the customer chose two 100-yuan pasta and a 150-yuan roast chicken. The total cost is no more than 500 yuan.

2.2. Theoretical Analysis

2.2.1 Analysis of the Reasons for Setting up High-priced Dishes in Restaurants

In this part, this article first analyzes the high-price anchor strategy of the restaurant. It will affect consumers' decision-making in the following two aspects. (1) Changes in perception of customers: the restaurant sets up a high-priced dish on the menu (such as 500 yuan steak), which becomes the "anchor" in the hearts of customers. It will change the inherent impression of this restaurant, thus increasing the price estimate of other dishes. (2) Psychological impact on customers: Other relatively low-priced dishes (such as 100 yuan pasta) are more affordable compared with high-priced dishes. Customers will relatively think that it is affordable and cost-effective, even if it is higher than the market price. Through the price difference between the two dishes, customers will think that the low-priced dishes are more cost-effective and get a lot of sales.

2.2.2 Analysis of the Reasons for Setting up Multiple Anchor Points in Restaurants

When a restaurant sets up multiple anchor points, it will affect the sales of different dishes. The specific impact is as follows. (1) First of all, some restaurants will set anchor points for multiple dishes, such as steak (500 yuan), pasta (100 yuan) and grilled chicken (150 yuan). Comparing the prices of dishes will make customers less sensitive to the price. (2) Secondly, in the price comparison of pasta (100 yuan) and roast chicken (150 yuan), it will make customers think that the price of roast chicken and pasta is reasonable, thus increasing the possibility of choosing roast chicken or pasta.

2.3. Behavioral Optimization from Two Angles

2.3.1 For the Change of the Restaurant

As a place where consumers choose to consume, restaurants need to be changed. For the restaurant. First of all, you can choose to put high-priced dishes, that is, high-anchor goods, in a conspicuous position, so that all customers can see them at a glance. Secondly, you can bind high-priced dishes and some low-priced dishes, and do some set activities and discounts appropriately. Finally, when the restaurant raises the price of dishes, it is necessary to take into account the overall environment and service of the restaurant to make appropriate adjustments, and the dishes and restaurants need to be unified [3].

2.3.2 For the Change of Consumers

Consumers also need to make some changes to cope with the anchoring effect. First of all, what consumers need to relatively accept or understand behavioral economics is to understand what consumption decision-making and anchoring effects are. Secondly, determine your budget scope in advance, whether you can accept the price of restaurants and dishes, and use your own psychological account to hedge the impact of the anchoring effect on yourself. Finally, consumers can compare the prices of the previous restaurants they have been to decide whether they can accept them, so as to reduce the impact on the anchoring effect.

3. Anchoring effects in Housing Market

3.1. Theoretical Analysis

3.1.1 The Theory of Anchoring Effect

In many situations, people make estimates by starting from an initial value that is adjusted to yield the final answer. This initial value or starting point, may be suggested by the formulation of the problem or it may be the result of a partial computation [4]. To put it simply, people have a basic perception and initial information (this is the anchor point) when people face something. This initial information or anchor point that it will lead adjustment and influence on subsequent decisions with people later, even the final answer. For example, in the advertisement, there are 90% of the user feedback is effective, with this as the anchor point. Even if the consumer subsequent doubt the authenticity of the data, but they still think the value as a benchmark to adjust the judgement. From the consumer's heart will be adjusted to at least 50% effective.

3.1.2 Insufficient Bias

This kind of insufficient bias is about the decision maker that they want to try making decision not to be influenced by the initial anchor point. But, it is still limited, because of cognition and complexity. Therefore, it will not deviate very much. For instance, both types of subjects need to buy the same residential property in an experiment. At the same time, they have the same comprehensive information. But, the listing price of the property is different in each condition. The actual listing price and the appraised value of the residential property were both \$74,900. However, there would be four listing prices in the Low, Moderately Low, Moderately High, and High conditions. In this experiment, the listing price was set as the anchor point. The result is that the contrast of amateur and expert subjects in these studies is enlightening. Estimates of both subject populations were significantly biased by listing prices [5]. Despite the fact that participants (including professional realtors and students) were provided with rich market data (e.g., comparable property sales records, regional price trends, etc.), their valuations were significantly influenced by the anchor point.

3.1.3 Loss Aversion and Information Simplification

The present research underscores the importance of understanding the manner in which consumers estimate market prices in determining selling prices. If consumers know with certainty the market price of the item they wish to sell, then this reference point is likely to figure in any decision about the selling price. Even in this case, however, interesting questions arise with respect to the factors that affect the discount level that a consumer, who is an occasional seller, applies to the known market price [6]. For example, home buyers rejected a high-value listing with a price tag of RMB 3.5 million due to an over-reliance on the regional average price (RMB 3 million) in a certain district in China. The average market price anchor led to an under-assessment of the property's individual characteristics and a missed deal opportunity.

3.2. Classic Case Study

3.2.1 Anchoring Effect of Average Residential Prices

In 2006, all the residential prices of Beijing began to rise sharply. The price increasing causes impact of people's psychological price for the house. Then through the publicity of real estate developers, banks, other institutions as well as the repeated stimulation of the home buyers in each other, the psychological price of the home buyers gradually rose. And this psychological price is the reference point for their judgement whether it is cost-effective to buy a house that is the anchor. In the past, the sky-high price of house is nearly a million dollars. Now it was considered to be reasonably priced. Consequently, under the influence of the anchor effect, even if the sales price reaches a new high. Nevertheless, there will be more and more buyers, especially investors are willing to pay a high price to buy, and push up the market psychological price again, resulting in higher prices. The second round of price rises and feedback to the third round, people continue to

blow win a bubble prepared by their own, fighting, vicious cycle. As a result, the price of housing of Beijing reached ultimately formed a high of 12,000 yuan per square meter by the end of 2007 [7].

3.2.2 Anchoring Effect of Average Market Price

The high penetration of online real estate platforms (e.g. EPRC) allows buyers to access easily historical transaction prices in Hong Kong. In 2001 to 2010, the annual average number of second-hand property transactions was less than 200,000. But the annual average number of online searches have already 4.5 million, so it shows that the buyers are highly dependent on the historical price as an anchor point. The anchoring effect in Hong Kong's second-hand property market stems from the interaction of historical price dependence, under-adjusted cognitive bias and loss aversion. These effects are amplified in an environment of transparent but asymmetric information, leading to a non-linear correlation between price volatility and transaction volume [8].

3.3. Behavioral Optimization Policies

3.3.1 The Impact of the Anchoring Effect

It will makes the price perception decline. As long as a higher anchor point is set, it inevitably brings the difficulty for consumers to circumvent the anchoring effect in either case. According to the effect from objective, transparent market price as the initial anchor point. It should help consumers to circumvent the possibility of overpricing a home during buying. Unfortunately, over-reliance on the effect will reduce the ability to identify, individualized and special products.

3.3.2 How Consumers Can Avoid the Anchoring Effect

consumers can compare prices from multiple perspectives to avoid the influence of a single anchor and actively compare prices across different channels or platforms. Evaluate the actual value of the product, focusing on the quality and function of the product itself, rather than relying on comparison of price alone. Consumers or investors need to be cautious in their decision-making, avoid relying on historical price anchors and analyse them in the context of market dynamics. Finally, be wary of advertising and promotional tactics, question the authenticity of the 'original price' stated by the merchant, and avoid impulsive consumption [9]. This suggests that, in addition to the intrinsic attributes of the residential product, the factors involved in the decision-making process are also related to the service experience of the real estate company during the sales process [10].

4. Conclusion

Through two case studies—catering consumption and real estate transactions—this study reveals the central role of the anchoring effect in consumer decision-making. It examines how anchoring psychologically influences people's consumption behavior (e.g., high-priced menu items, real estate listing prices), shaping their price perceptions and, consequently, the rationality of their decisions. The main findings are as follows: First, high-price anchors can distort consumers' perceptions of price rationality; for instance, a 500-yuan steak can make a 100-yuan spaghetti dish seem like a "good deal."

Second, decision-makers often exhibit information bias. In the real estate case, although buyers adjusted their offers downward, they still deviated from market prices, demonstrating the limitations of cognitive correction.

Third, anchoring, combined with loss aversion and information simplification, creates a compounded psychological effect, leading to decision-making deviations. The core of this study points out that the anchoring effect essentially results from the interaction of information asymmetry and cognitive shortcuts. In business scenarios, companies can influence consumer choices through strategic anchor settings (e.g., menu design, real estate pricing). However, excessive reliance on a single anchor may lead to irrational consumption, as seen in Shanghai homebuyers who overlook property features due to anchoring on the regional average price.

The catering industry can improve consumers' perception of price rationality through diverse pricing anchors, while the real estate industry should avoid misleading the market with inflated listing prices.

Recommendations for consumers include using "mental accounting" to set budget limits (e.g., a spending cap for dining, or a housing price range within $\pm 10\%$) and leveraging digital tools to build independent references and mitigate the influence of anchors. Ultimately, improving decision-making rationality requires both individual cognitive enhancement and efforts to optimize market transparency.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

References

- [1] Staff P. The anchoring effect and how it can impact your negotiation. PON-Program on Negotiation at Harvard Law School, 2020, 21.
- [2] Furnham A, Boo H C. A literature review of the anchoring effect. *The journal of socio-economics*, 2011, 40 (1): 35-42.
- [3] Law R, Leung D, Au N, et al. Progress and development of information technology in the hospitality industry: Evidence from Cornell Hospitality Quarterly. *Cornell Hospitality Quarterly*, 2013, 54 (1): 10-24.
- [4] Tversky A, Kahneman D. 1974. Judgment under Uncertainty: Heuristics and Biases. *Science*, 185 (4157): 1124-1131. <https://doi.org/10.1126/science.185.4157.1124>.
- [5] NORTHCRAFT G B, NEALE M A. 1987b. Experts, amateurs, and real estate: An anchoring-and-adjustment perspective on property pricing decisions. *Organizational Behavior and Human Decision Processes*, 39 (1): 84-97. [https://doi.org/10.1016/0749-5978\(87\)90046-x](https://doi.org/10.1016/0749-5978(87)90046-x).
- [6] SIMONSON I, DROLET A. 2004. Anchoring effects on consumers' Willingness-to-Pay and Willingness-to-Accept. *Journal of Consumer Research*, 31 (3): 681-690. <https://doi.org/10.1086/425103>.
- [7] Liao, Y. Economic Analysis of Sales Behavior in Beijing Residential Market. 'Henan Science and Technology', (6), 217-218.
- [8] Chen S, Wang W, Zhong L. Anchoring Effect in China's Real Estate Market. *Proceedings of the 2nd International Conference on Business and Policy Studies (part 8)*. School of Economics, Fujian Normal University; Suzhou Foreign Language School; Ulink College of Shanghai, 2023: 175-182. DOI: 10.26914/c.cnkihy.2023.097183.
- [9] Jingwen L. The Impact of Anchoring Effects, Loss Aversion, and Belief Perseverance on Consumer Decision-Making. *Proceedings of the 2nd International Conference on Financial Technology and Business Analysis (part 3)*. Xi'an Tie Yi High School International Curriculum Center, 2023: 749-755. DOI: 10.26914/c.cnkihy.2023.126214.
- [10] Tong L. Research on the Behavioral Psychological Mechanism of Consumer House Purchase Decision based on Behavioral Economics. Southeast University, 2023. DOI: 10.27014/d.cnki.gdnau.2023.002659.