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The Impact of Anchoring Effects, Loss Aversion, and Belief Perseverance on Consumer Decision-Making

Lin Jingwen[1,a,*]

[1]Xi'an Tie Yi High School International Curriculum Center, Xi'an, 710000, China
a. linjingwen2024@126.com
**corresponding author*

Abstract: In today's intricate consumer environment, consumer decisions are influenced by various cognitive biases, including Anchoring Effect, Loss Aversion, and Belief Perseverance. These cognitive biases can lead to irrational consumer decision-making with extensive and far-reaching implications for individuals and the market. This study employs a comprehensive literature review approach and analyzes multiple real-world cases and studies to illustrate the impact of these cognitive biases in different domains. The findings of this study reveal that the anchoring effect influences consumers through price and information anchors. Loss aversion makes them more cautious and risk-averse, while belief perseverance leads them to cling to their pre-existing beliefs, even in the face of contradictory evidence. These cognitive biases significantly affect political, investment, and consumption decisions, potentially resulting in irrational choices and resource allocation. This study underscores the influence of cognitive biases in consumer decision-making and proposes strategies to challenge and ameliorate these biases. Such insights hold practical significance for consumers, policymakers, and marketing professionals, contributing to enhancing decision quality, mitigating the risks of irrational behavior, and improving economic well-being.

Keywords: cognitive biases, Anchoring Effect, Loss Aversion, Belief Perseverance

1. Introduction

The anchoring effect, loss aversion, and belief perseverance are significant concepts in behavioral economics that shed light on psychological biases influencing decision-making. These biases lead individuals to deviate from rational economic expectations due to psychological and cognitive factors.

Traditionally, economics assumes that people are unaffected by meaningless numbers when making rational decisions. However, Daniel Kahneman and Amos Tversky introduced the anchoring effect, a psychological bias that challenges this assumption and rejects the "rational person" hypothesis. Their research revealed that individuals heavily rely on the initial piece of information they receive, known as the anchor, even if it is irrelevant or arbitrary. This bias has profound implications for understanding irrational decision-making and emphasizes the role of cognitive biases in economics.

Loss aversion is another crucial cognitive bias, whereby individuals strongly prefer avoiding losses compared to acquiring equivalent gains. This bias highlights people's sensitivity to potential losses, leading to irrational and suboptimal decisions. Nobel laureate Richard Thaler aptly described it as

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"losses loom larger than gains." The impact of loss aversion extends to economic behavior, investment decisions, and financial markets [1].

Belief perseverance, yet another cognitive bias, plays a significant role in decision-making. It refers to individuals' tendency to cling to initial beliefs or opinions despite contradictory evidence. People often rely on cognitive shortcuts and confirmation bias to reinforce existing beliefs, impeding rational decision-making and openness to new information.

Understanding these cognitive biases and their influence on decision-making is crucial for improving economic outcomes on both individual and societal levels. Researchers can utilize this understanding to provide decision support, improve policies, and enhance financial literacy, thus promoting economic well-being. As behavioral economics gains traction, policymakers and market participants can apply these insights to design interventions and strategies that mitigate the influence of cognitive biases, fostering wiser and more rational economic decision-making.

2. The Impact of Anchoring Effects on Consumer Decision-Making

2.1. Definition and Mechanism of the Anchoring Effect

2.1.1. Definition of the Anchoring Effect

The anchoring effect refers to the phenomenon wherein individuals when required to make quantitative estimations regarding an event, utilize specific numerical values as starting points, and these starting points act as anchors that constrain their estimations. In other words, individuals making decisions are unconsciously influenced by the initial information they receive. In the context of consumer decision-making, the anchoring effect also plays a crucial role. Anchors can significantly impact consumers' price perceptions and purchasing decisions. The anchoring effect has been empirically validated in various studies, including research conducted by behavioral economists such as Daniel Kahneman and Amos Tversky.[1] These studies emphasize the importance of anchors in the decision-making process and how people are influenced by anchors, even though they may be random or irrational.

2.1.2. Mechanisms of Anchoring Effects on Consumption Decisions

Influencing Price Perception: When consumers face purchasing decisions, they typically use the initial price or information they encounter (the anchor) as a reference point. This anchor affects their perception of other prices. If the anchor is a higher price, consumers may consider other prices relatively lower, making them more willing to make a purchase.

Impacting Comparative Shopping: Anchors influence how consumers compare products or brands. If consumers see a higher price as the anchor, they may choose products priced below the anchor, even if they may not be the optimal choice. Affecting Negotiation and Bargaining: The anchor is often the initial price proposed in negotiation and bargaining scenarios. This price can be the starting point for subsequent price negotiations, influencing the final price reached. Buyers and sellers may converge around this price if the initial anchor is set high.

Difficulty in Escaping Anchors: The anchoring effect is often quite stubborn, and even after receiving more information, people may still be influenced by the anchor. This makes it challenging for consumers to break free from the anchoring effect, even if they recognize that the anchor is not rational.

Exploitation in Advertising and Promotion: Advertising and promotional activities often leverage anchors to influence consumers. For example, a store may discount prices from the original price to create a higher anchor, making consumers feel they are getting a discount. Impact on Investment Decisions: The anchoring effect applies to commodity prices and plays a significant role in financial

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investment. Investors may use past highs (market anchors) as references for decision-making, making them more inclined to wait for the market to return to that level, even if it may not be the most rational decision.

2.2. Case Studies and Improvement Measures

Two Anchoring Price experiments were conducted with 100 students at a university to investigate the number of copies of the combined edition of the *Reader* magazine sold. The following choices were offered in Experiment 1: 30 RMB for a separate subscription to the electronic version, 70 RMB for a separate subscription to the print version, and 70 RMB for a combined electronic and print package.

The number of people choosing these three options was 17, 0, and 83, respectively.

In Anchoring Price experiment 2, the options were modified, with the single subscription of the print version removed. As a result, 64 participants chose to subscribe to the electronic version alone, and 36 chose the subscription package for the print and electronic versions [2].

This experiment provides an intuitive insight into the role of "comparison" in the anchoring effect and its impact on consumer decision-making. In the first experiment, the absence of any purchases for the option "single subscription to the print version for 70 RMB" can be attributed to the presence of a comparative anchor, specifically the "combined electronic and print version for 70 RMB." However, when the "single subscription to the print version for 70 RMB" was removed in the second experiment, a clear and direct comparison was less evident, resulting in a more evenly distributed number of purchases. This phenomenon arises from the fact that when individuals assess the value of a product during the purchasing process, their judgment of the product's worth is often influenced by comparative evaluations between products, given the inherent ambiguity in assessing the value of a product. Businesses employ various structured pricing strategies and differential services to either raise prices or increase sales volume, thus aiming to extract more consumer surplus.

This illustrates that "anchors" can be intentionally set, and such anchoring effects may introduce potential risks in consumer decision-making. When high or unreasonable anchors influence consumers, they may perceive other prices as reasonable, even if it may not be the case, leading to the purchase of higher-priced goods or services and resulting in financial wastage. The anchoring effect may lead to decision distortion. Consumers may be inclined to choose options relative to the anchor price when comparing products or choices rather than making decisions based on the actual quality or value of the product. This can lead to unwise purchasing decisions. The anchoring effect can lead consumers into unreasonable negotiations in negotiations and bargaining. If the other party presents a high initial price, consumers may perceive it as a reasonable starting point and may not attempt to negotiate better terms, resulting in unfavorable transactions [3]. In financial investment, the anchoring effect can lead to irrational investment decisions. Investors may anchor on historical highs as stock price references, insisting on waiting for the stock price to return to that level, regardless of the actual market conditions, thereby taking unnecessary risks. Companies can exploit the anchoring effect to devise misleading advertising and promotional strategies. They can mark a higher price on the original price and then offer discounts, making consumers believe they are receiving discounts, even though the discounts may not be significant. The anchoring effect can lead to resource wastage because consumers may purchase goods or services they do not need simply because the prices seem reasonable or attractive.

To alleviate the potential risks associated with the anchoring effect, consumers can take measures such as comparing prices from multiple perspectives, carefully evaluating product quality, cultivating more rational negotiation skills, and exercising prudence in investment decisions. Additionally, policymakers can implement measures such as regulating price labeling in advertisements and enacting consumer protection regulations to mitigate the adverse effects the anchoring effect may have on consumers.

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3. The Impact of Loss Aversion on Consumer Decision-Making

3.1. Definition and Mechanisms of Loss Aversion

As early as 1759, the father of modern economics, Adam Smith, described an intriguing phenomenon in his work "The Theory of Moral Sentiments": when circumstances change from good to bad, people experience more suffering than joy when the change is from bad to good, and he believed this phenomenon to be universal. Over 200 years later, in 1979, Psychologists Daniel Kahneman and Amos Tversky tested this idea with a gambling experiment Wherein half of the participants had the opportunity to win $50, and the other half faced the potential loss of $50 (yielding the equivalent expected gains and losses), participants exhibited a general reluctance to engage in gambling activity. Their participation rate fell below the random expectation of 50%. Moreover, as monetary stakes increased, many participants declined to participate in gambling. Kahneman and Tversky, based on their findings, posited that the psychological impact of losses and gains is asymmetric. Objectively, losses evoke greater psychological disutility than the commensurate psychological utility generated by gains. Consequently, they denominated this phenomenon as "loss aversion" [4].

Loss aversion is one of the fundamental and core concepts in prospect theory. A substantial body of research has confirmed the universality of the loss aversion phenomenon. In consumer decision-making, loss aversion has a significant impact on purchasing behavior.

First, loss aversion is a warning signal in consumers' purchasing decisions. Consumers tend to be more cautious when faced with choices that could lead to losses. For example, consumers are inclined to opt for low-risk investment options in selecting investment products due to the fear of potential investment losses, even if the expected returns may be lower. They are more inclined to avoid potential losses rather than pursue potential gains. This psychological mechanism of loss aversion fosters a conservative tendency in purchasing decisions.

Secondly, loss aversion leads to heightened sensitivity to prices among consumers. Consumers are particularly sensitive to losses in the context of purchasing decisions, making them highly attentive to price fluctuations. When prices rise, consumers perceive it as a loss, which may lead to delayed purchase decisions or the selection of more economically viable alternatives. Conversely, when prices drop, consumers perceive it as a gain, which may prompt them to be more proactive in purchasing.

People's perceptions of and responses to losses are more vital than equivalent gains. Key factors influencing people's heightened sensitivity to losses and their impact on decision-making include: Survival Advantage: Throughout the long evolutionary history of humans, avoiding losses has been more critical than acquiring gains. Losses could have had a more substantial impact on survival and reproduction, so natural selection likely made people more sensitive to potential losses to enhance their chances of survival. This survival advantage is deeply ingrained in human psychology and influences our decision-making. Asymmetric Psychological Weighting: Kahneman and Tversky proposed the Prospect Theory, which suggests that people do not symmetrically weigh potential gains and losses [5].

Losses are typically more salient than gains, so people tend to be more inclined to avoid losses, even if it involves taking risks to prevent them. Losses often trigger stronger negative emotions such as anxiety, fear, and disappointment. These emotions reinforce people's sensitivity to losses, making them more inclined to take action to avoid potential losses, even if it involves risk. People tend to compartmentalize different types of assets and funds into separate "mental accounts," such as savings, investments, daily expenses, etc. Loss aversion makes people more likely to perceive losses as coming from their "savings account" rather than others, influencing their decision-making to minimize such losses [6].

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3.2. Improvement Measures

Understanding this psychological phenomenon helps to better comprehend people's decision-making behavior and take measures to mitigate the potential negative impact of loss aversion on decision-making. Avoiding or reducing the influence of loss aversion requires a certain level of awareness and strategies:

Actively acquiring more information and comparing different options can enable individuals to assess risks and rewards better.

Clear budgets and decision-making rules can help limit unnecessary expenses and impulse purchases.

Placing decisions within a long-term planning framework, ensuring alignment with personal long-term goals, can reduce the interference of short-term emotional fluctuations in decision-making.

Maintaining composure and rationality, not allowing emotions to sway decisions, can assist consumers in coping with loss aversion and making wiser shopping and investment decisions.

In summary, mitigating the impact of loss aversion requires self-control, rational decision-making, and long-term planning. By implementing the above-mentioned strategies, investors can better manage emotions and risks, leading to more prudent financial decisions.

4. The Impact of Belief Perseverance on Consumer Decision-Making

4.1. Definition and Role of Belief Perseverance

Belief perseverance refers to the tendency of individuals to maintain their existing beliefs and resist accepting new evidence or information that contradicts those beliefs. This entrenched belief can lead people to overlook or reject viewpoints contrary to their existing convictions, thus influencing their decision-making and perspectives.

In consumer decision-making, belief perseverance plays a significant role, especially in brand selection, where it can significantly impact individual brand loyalty.

Firstly, once individuals form a positive belief about a particular brand, they often choose it in their purchasing decisions. This belief perseverance can stem from various factors such as past purchase experiences, personal preferences, and social influences. For instance, a consumer may develop trust and identification with a brand after multiple purchases, believing that the brand's products offer a certain level of quality assurance and performance advantage. Therefore, when faced with competing brands, this consumer is more inclined to choose the familiar and trusted brand. In this context, belief perseverance stabilizes and strengthens an individual's loyalty to the brand.[7]

Secondly, consumers' belief in perseverance can also be influenced by society and the environment. Channels such as social circles and advertising media can impact an individual's beliefs, ultimately shaping brand loyalty. Recommendations and word-of-mouth information within social circles can reinforce an individual's belief in a particular brand, leading to belief perseverance. Additionally, the influence of advertising and promotional activities from media channels can create belief perseverance in the minds of consumers, making them more likely to favor that brand. Therefore, in brand promotion and communication, companies should effectively utilize social networks and media channels to convey positive brand messages, enhancing consumers' belief perseverance and subsequently increasing brand loyalty [8].

Lastly, while belief perseverance can promote the formation of brand loyalty, it also carries certain risks. If consumers become dissatisfied with product performance or service experiences after purchase, their belief perseverance may be shaken. Hence, companies should also pay attention to consumers' individual needs and experiences to boost brand loyalty and influence consumer decisions.

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In conclusion, belief perseverance significantly influences consumers' brand loyalty and, consequently, their consumer decisions. Businesses should always prioritize the formation of belief perseverance in brand promotion and management by delivering positive brand messages through social networks and media channels, offering high-quality products, and providing excellent service experiences. Businesses can achieve long-term success in a competitive market only with steadfast brand loyalty. However, it is essential to recognize that consumers' limited exposure to market information due to belief perseverance can entail potential risks.

4.2. Improvement Measures

Belief perseverance is a cognitive bias where individuals tend to persist in their beliefs, even in the face of contradictory evidence, often unwilling to question or investigate further, leading to irrational outcomes in investment and consumption decisions. For example, investors may hold an excessive position in a particular asset class due to unwavering belief, disregarding the importance of diversifying their portfolio. This can result in inadequate risk diversification and potentially harm investment returns [9]. Similarly, consumers may adhere to their beliefs due to emotional associations with a specific brand or product. For example, someone may persistently purchase a particular car brand due to family traditions despite the availability of better alternatives.

Consumers can engage in self-training to make more rational decisions and reduce losses challenged by entrenched beliefs. Firstly, individuals can begin by introspectively examining their beliefs. This involves questioning why they hold certain beliefs, how they were formed, and whether they remain reasonable and valid. Actively seeking counter-evidence is crucial: proactively seeking information that opposes their beliefs is a key step in changing convictions. Individuals can actively search for evidence contradicting their beliefs to enable a more comprehensive evaluation of the situation. Interacting with individuals holding different beliefs: Engaging in conversations and interactions with people with opposing beliefs can help broaden perspectives. This aids in understanding other viewpoints and provides additional background information.

Secondly, it is essential to cultivate a mindset that is open to new information and viewpoints rather than rejecting or ignoring them. Flexible thinking facilitates easier belief change. Learning new knowledge and obtaining more information can aid in changing beliefs. This may involve reading books, taking courses, or consulting experts. Setting goals and rewards during the learning process and establishing rewards for progress and success can provide motivation and drive. Challenging and changing entrenched beliefs may require psychological counseling or professional support. Psychologists or therapists can offer guidance and assistance.

Finally, belief change is typically a gradual process. Individuals do not have to change all their beliefs at once but can make gradual adjustments and corrections. Changing beliefs takes time and may be accompanied by discomfort. Individuals need to be patient and prepared to face uncertainty and contradictions. Most importantly, individuals should care for their feelings and needs. Challenging and changing beliefs can be emotionally challenging, so self-care and emotional support are crucial.

Changing entrenched beliefs can be challenging, but in certain circumstances, it is an essential process of development and growth. By adopting appropriate methods and strategies, individuals can become more open to new perspectives and evidence, altering their beliefs and making wiser decisions.

5. Conclusion

The anchoring effect, loss aversion, and belief perseverance are all prevalent cognitive biases that exert profound influences on consumer decision-making across various domains. These phenomena

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not only contribute to explaining why individuals make irrational decisions but also offer potential avenues for improving decision-making and market design [10]. In addition to conducting a more comprehensive literature review to ensure the breadth and depth of the overview, this article could further substantiate its arguments with additional experimental and survey data.

As for the future research direction, the author believes that can focus on the influence of cultural factors on bias, and whether bias can help consumer groups make rational judgments in a market economy, which is also a new attempt to change traditional concepts. This article explores several types of cognitive bias to understand why people make irrational decisions. These studies will help improve the economic well-being of individuals and societies.

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