

The Impact of Anchoring Bias on Financial Decision-Making: Exploring Cognitive Biases in Decision-Making Processes

Bingqing Wang¹

¹ Zhengzhou University, Henan 410100, China

Correspondence: Bingqing Wang, Zhengzhou University, Henan 410100, China.

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Abstract

This article explores the concept of anchoring bias in financial decision-making. Anchoring bias refers to the tendency for individuals to rely too heavily on an initial anchor when making judgments or decisions, even if the anchor is arbitrary or irrelevant. The article defines anchoring bias, discusses its effects on investment decisions, pricing and valuation decisions, and risk assessment and management. Strategies for recognizing and reducing the impact of anchoring bias are explored, including awareness and reflection, seeking diverse perspectives, considering multiple anchors, utilizing decision-making tools, and encouraging independent thinking. The role of education and training in minimizing anchoring bias is discussed, as well as the importance of diversification and independent analysis in decision-making. By understanding and addressing anchoring bias, individuals can make more rational and unbiased financial decisions.

Keywords: anchoring bias, financial decision-making, investment decisions, pricing and valuation, risk assessment and management, strategies, education and training, diversification, independent analysis

1. Introduction

1.1 Background Information on Cognitive Biases in Decision-Making

Cognitive biases refer to systematic errors in thinking that can affect our judgment and decision-making processes. These biases are inherent in human psychology and can lead to irrational and suboptimal decision-making outcomes. Understanding cognitive biases is crucial, especially in fields such as finance, where decision-making plays a significant role in determining financial success.

Financial decision-making involves assessing various options, weighing risks and rewards, and making choices based on available information. However, cognitive biases can distort this process, leading to biased judgments and inaccurate decision outcomes. One important cognitive bias that has been extensively studied in the context of financial decision-making is anchoring bias.

Anchoring bias occurs when individuals rely too heavily on an initial piece of information (the anchor) when making decisions, even if the anchor is irrelevant or arbitrary. This bias can

significantly impact financial decision-making, as individuals tend to base their judgments and choices on the initial information they receive, rather than considering all relevant factors.

Understanding the impact of anchoring bias on financial decision-making is crucial for individuals, investors, and financial professionals. By recognizing and mitigating anchoring bias, it is possible to improve decision-making processes and enhance financial outcomes.

In this paper, we will explore the impact of anchoring bias on financial decision-making in detail. We will examine the various ways in which anchoring bias manifests in financial contexts and its implications for investment decisions, pricing and valuation decisions, and risk assessment and management. Additionally, we will discuss strategies to mitigate anchoring bias and promote more rational decision-making in the financial domain.

Overall, this paper aims to provide a comprehensive understanding of the role of anchoring bias in financial decision-making and its implications for individuals and the financial industry. By shedding light on this cognitive bias and its effects, we can equip decision-makers with the knowledge and tools necessary to make more informed and rational financial choices.

1.2 Brief Explanation of Anchoring Bias

Anchoring bias refers to the tendency of individuals to rely heavily on the first piece of information they receive (the anchor) when making judgments or decisions. This bias occurs even when the anchor is irrelevant or arbitrary. Once an anchor is established, it serves as a mental reference point that influences subsequent assessments or evaluations.

The anchoring effect can be powerful, leading individuals to make judgments or decisions that are biased towards the initial anchor, even if other information contradicts it. This bias can occur in various domains, including financial decision-making.

For example, let's consider an investor who is considering purchasing a stock. If the investor hears a high stock price as the anchor, they may be inclined to perceive subsequent prices as relatively low in comparison. Conversely, if they hear a low stock price as the anchor, they may perceive subsequent prices as relatively high. This bias can influence their perception of the

stock's value and potentially influence their decision to buy or sell.

Anchoring bias can also impact pricing and valuation decisions. For instance, when negotiating a price for a product or service, the initial asking price can serve as an anchor and influence the final agreed-upon price. Similarly, when valuing an asset or company, the initial valuation estimate can anchor subsequent valuation judgments.

In summary, anchoring bias leads individuals to rely heavily on initial information when making judgments or decisions, even if that information is arbitrary or irrelevant. This bias can have significant implications for financial decision-making, influencing perceptions of value, pricing, and investment choices.

1.3 Importance of Studying the Impact of Anchoring Bias on Financial Decision-Making

Studying the impact of anchoring bias on financial decision-making is crucial for several reasons.

Firstly, financial decision-making plays a vital role in individuals' personal financial well-being and the overall functioning of the financial markets. Biases, such as anchoring bias, can distort decision-making processes, leading to suboptimal outcomes, increased risk, and potential financial losses. By understanding the impact of anchoring bias, individuals can make more informed and rational decisions, improving their financial outcomes and reducing the likelihood of making costly mistakes.

Secondly, financial professionals, such as investment analysts, portfolio managers, and financial advisors, make decisions that can have significant implications for their clients and the broader financial industry. By studying anchoring bias, these professionals can enhance their decision-making processes, identify potential biases, and develop strategies to mitigate their impact. This can lead to improved investment performance, better risk management, and increased client satisfaction.

Furthermore, studying anchoring bias can contribute to the development of effective interventions and strategies to mitigate its impact. Awareness of anchoring bias and its potential consequences allows for the implementation of decision-making techniques that encourage more rational and unbiased

assessments. By understanding the factors that influence the strength of anchoring bias and identifying the circumstances in which it is most likely to occur, researchers and practitioners can design interventions to counteract its effects.

Moreover, understanding anchoring bias in financial decision-making can have broader implications for behavioral economics and finance. Cognitive biases play a crucial role in shaping economic behavior and can have significant macroeconomic effects. By studying anchoring bias, researchers can contribute to the body of knowledge on cognitive biases, advancing our understanding of human decision-making processes and informing policy-making in areas such as investor protection, financial regulations, and market efficiency.

In conclusion, studying the impact of anchoring bias on financial decision-making is essential for individuals, financial professionals, and researchers. By understanding and addressing this bias, we can enhance decision-making processes, improve financial outcomes, and contribute to the development of more rational and efficient financial markets.

2. Cognitive Biases in Decision-Making

2.1 Definition and Types of Cognitive Biases

Cognitive biases are systematic patterns of deviation from rationality or logical reasoning that can affect our decision-making processes. These biases are a result of the inherent limitations and shortcuts in human cognition and can lead to errors, distortions, and irrational judgments.

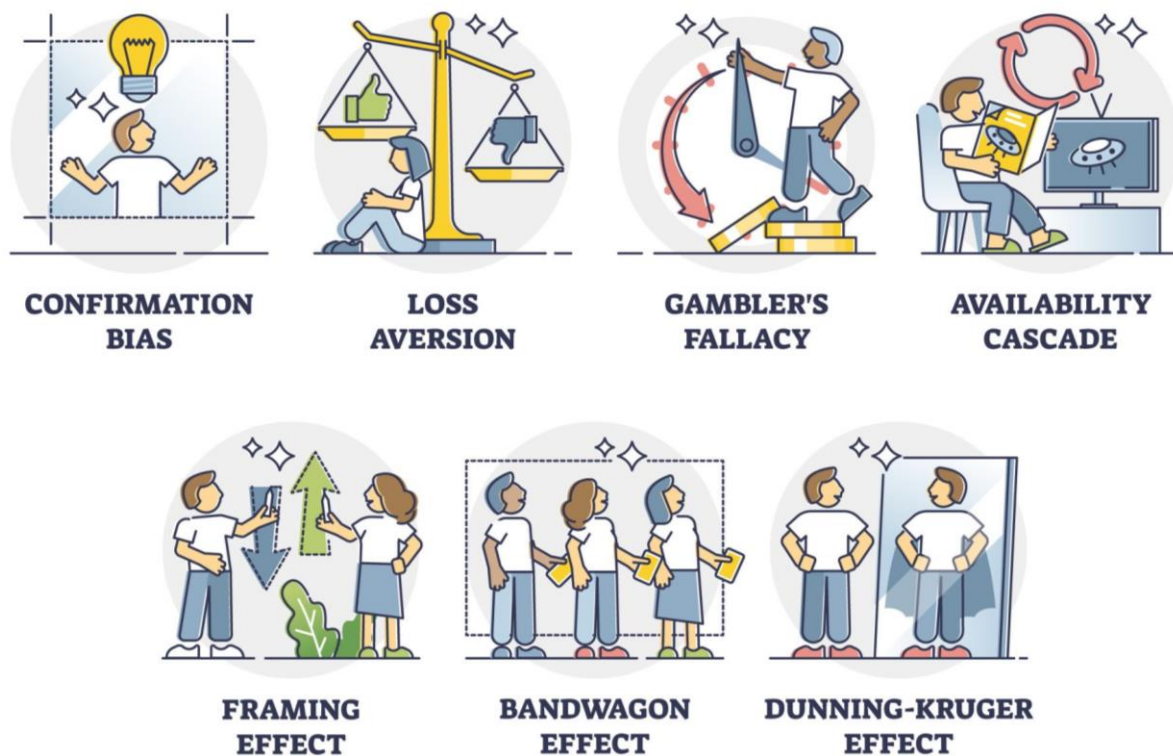


Figure 1. Cognitive biases

There are numerous cognitive biases that have been identified and studied in the field of psychology and behavioral economics. Some of the commonly recognized biases include:

- Confirmation Bias: The tendency to search for, interpret, or favor information that confirms one's pre-existing beliefs or hypotheses while ignoring or downplaying contradictory evidence.
- Availability Heuristic: The tendency to rely on readily available examples or information that comes to mind easily when making judgments or decisions, rather than considering a broader range of evidence or probabilities.
- Overconfidence Bias: The tendency to overestimate one's abilities, knowledge, or the accuracy of one's judgments and

predictions.

- **Loss Aversion:** The tendency to weigh potential losses more heavily than potential gains, leading individuals to be risk-averse and make suboptimal decisions to avoid losses.
- **Anchoring Bias** (previously discussed): The tendency to rely heavily on the initial piece of information received (the anchor) when making judgments or decisions, even if it is arbitrary or irrelevant.
- **Framing Effect:** The influence of the way information is presented or framed on decision-making. People tend to react differently to the same information depending on how it is framed, leading to different choices and judgments.
- **Hindsight Bias:** The tendency, after an event has occurred, to perceive the event as having been predictable or to overestimate one's ability to have predicted the outcome beforehand.

These are just a few examples of the cognitive biases that can impact decision-making. Each bias operates differently and can have varying effects on the decision-making process. Recognizing and understanding these biases is crucial for improving decision-making quality and minimizing the potential negative consequences.

In the next sections, we will focus on one specific cognitive bias, anchoring bias, and explore its impact on financial decision-making in more detail.

2.2 Overview of Common Cognitive Biases in Financial Decision-Making

Financial decision-making is susceptible to a range of cognitive biases that can impact individuals' judgments, evaluations, and choices. Here is an overview of some common cognitive biases observed in the context of financial decision-making:

Anchoring Bias: As discussed earlier, anchoring bias occurs when individuals rely heavily on an initial piece of information (the anchor) when making financial decisions. This bias can influence perceptions of value, pricing, and investment choices.



Figure 2. Anchoring Bias

Confirmation Bias: In financial decision-making, confirmation bias can lead individuals to seek out and favor information that supports their pre-existing beliefs or biases. This bias can hinder the ability to objectively evaluate investment opportunities or make sound financial judgments.

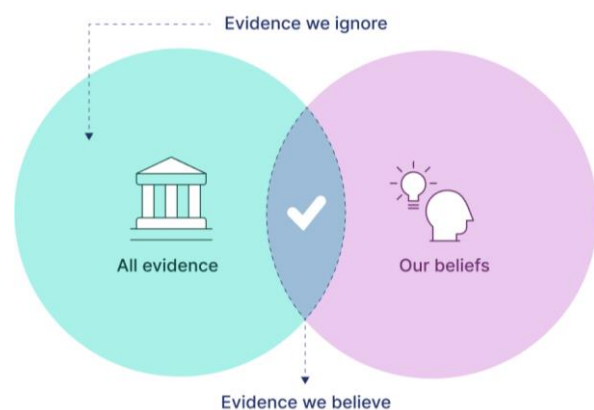


Figure 3. Confirmation Bias

Overconfidence Bias: Overconfidence bias refers to individuals' tendency to overestimate their abilities, knowledge, or the accuracy of their financial judgments. This bias can lead to excessive risk-taking, suboptimal investment decisions, and potential financial losses.

Herd Mentality: The herd mentality bias refers to individuals' inclination to follow the actions or decisions of the majority, rather than making independent judgments. In financial markets, this bias can contribute to market bubbles, speculative behavior, and irrational investment decisions.

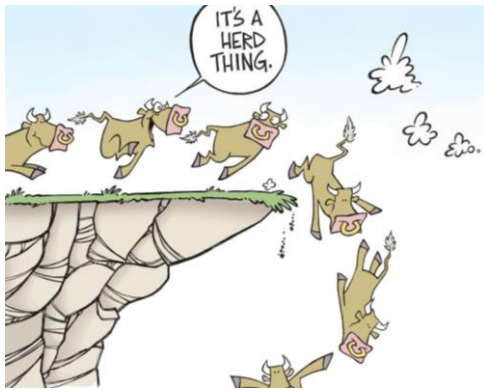


Figure 4. Herd Mentality

Loss Aversion: Loss aversion bias leads individuals to weigh potential losses more heavily than potential gains. This bias can make individuals overly risk-averse, leading to missed investment opportunities or suboptimal portfolio management decisions.

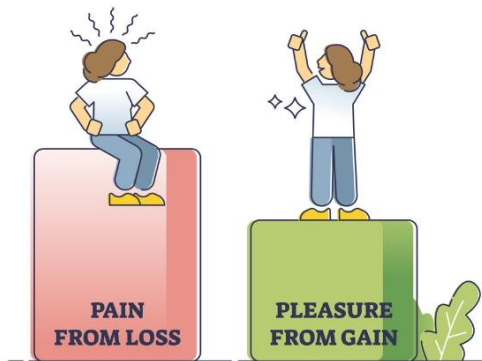


Figure 5. Loss Aversion

Availability Bias: The availability bias occurs when individuals rely on easily accessible or memorable information when making financial decisions. This bias can lead to overlooking important but less readily available information, potentially impacting investment choices or risk assessments.

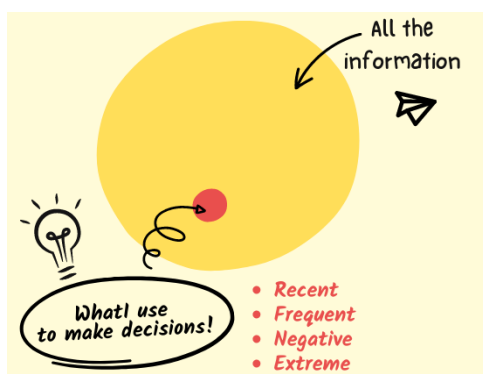


Figure 6. Availability Bias

Gambler's Fallacy: The gambler's fallacy bias refers to the belief that past events or outcomes in financial markets can influence future outcomes. This bias can lead individuals to make decisions based on perceived patterns or randomness, rather than considering relevant market information.



Figure 7. Gambler's Fallacy

Mental Accounting: Mental accounting bias occurs when individuals categorize their financial resources or investments into separate mental accounts. This bias can lead to suboptimal asset allocation or the mismanagement of financial resources.

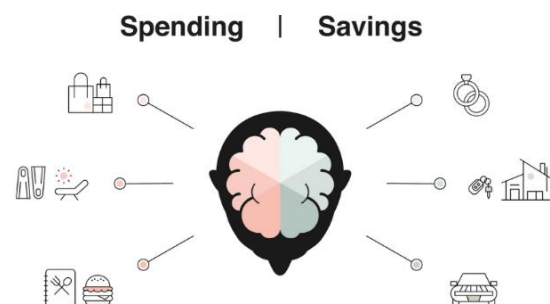


Figure 8. Mental Accounting

These are just a few examples of cognitive biases that can affect financial decision-making. It is important to recognize and understand these biases to make more informed and rational financial decisions, both as individuals and as professionals in the financial industry.

3. Anchoring Bias

3.1 Definition and Explanation of Anchoring Bias

Anchoring bias is a cognitive bias that occurs

when individuals rely too heavily on an initial piece of information (the anchor) when making judgments or decisions, even if the anchor is arbitrary or irrelevant to the decision at hand. This bias influences subsequent assessments and evaluations, leading individuals to be biased towards the initial information they receive.

The anchor serves as a mental reference point that individuals use to compare and evaluate other information or options. Once an anchor is established, it has a powerful effect on subsequent judgments, often leading individuals to make decisions that are biased towards the anchor.

Anchoring bias can manifest in various ways. For example, when making a pricing decision, individuals may be influenced by the initial price they encounter, whether it is the price of a similar product, a suggested price by a salesperson, or a historical price. This initial price serves as an anchor that influences their perception of what is a fair or reasonable price.

Similarly, in investment decision-making, individuals may anchor their expectations on a particular stock price, a historical market performance, or an analyst's target price. This anchoring can affect their assessment of the stock's value and potential returns, potentially leading to biased investment decisions.

Anchoring bias can be particularly strong when individuals lack sufficient information or knowledge to make a well-informed judgment. In such cases, the anchor becomes a default starting point that heavily influences subsequent considerations.

It is important to note that anchoring bias can occur even when individuals are aware of its presence. The bias operates at an unconscious level, making it challenging to overcome without deliberate effort and awareness.

Understanding and recognizing anchoring bias is crucial for making more rational and unbiased decisions. By being aware of this bias, individuals can consciously question the relevance and validity of the initial anchor and seek additional information or perspectives to ensure a more balanced decision-making process.

In the next sections, we will delve into examples of anchoring bias in financial decision-making and explore its impact on investment decisions, pricing and valuation, and risk assessment and

management.

3.2 Examples of Anchoring Bias in Financial Decision-Making

Anchoring bias can manifest in various financial decision-making scenarios. Here are some examples:

Pricing and Valuation: When determining the price of a product or service, individuals may anchor their pricing decisions based on an initial price they encounter, such as the manufacturer's suggested retail price or the price of a similar product. This anchoring can influence their perception of what is a fair or reasonable price, potentially leading to overpricing or underpricing.

Investment Decisions: In investment decision-making, individuals may anchor their expectations on a particular stock price, historical market performance, or analyst's target price. This anchoring can impact their assessment of the stock's value and potential returns. For example, an investor who sees a stock trading at a high price may anchor their perception of the stock's value, leading them to believe it is overvalued and potentially influencing their decision not to invest.

Negotiations: Anchoring bias can also affect negotiations and contract agreements. For example, in a salary negotiation, the initial salary offered or mentioned can serve as an anchor for both the employer and the employee. This anchor can influence subsequent negotiations and the final agreed-upon salary.

Risk Assessment: Anchoring bias can impact risk assessment and risk management decisions. For instance, if a financial advisor presents a particular investment option as low risk, individuals may anchor their perception of the investment's risk level to that initial information. This anchoring can influence their assessment of the investment's risk-return profile and potentially lead to an inaccurate evaluation of its risk.

Financial Forecasts: Anchoring bias can influence financial forecasts and predictions. When making future projections, individuals may anchor their estimates based on historical data or past performance. This anchoring can lead to biased forecasts and an underestimation or overestimation of future outcomes.

3.3 Factors Influencing the Strength of Anchoring Bias

The strength of anchoring bias can vary depending on several factors. Here are some factors that can influence the strength of anchoring bias:

Salience of the Anchor: The more prominent or vivid the initial anchor, the stronger the anchoring bias is likely to be. An anchor that is easily noticeable or memorable can have a more significant impact on subsequent judgments and decisions.

Relevance of the Anchor: The perceived relevance of the initial anchor to the decision at hand can influence the strength of anchoring bias. If the anchor is perceived to be directly related to the decision, individuals are more likely to rely on it heavily.

Expertise and Knowledge: Individuals with greater expertise or knowledge in a specific domain may be less susceptible to anchoring bias. Knowledge and expertise can help individuals consider a broader range of information and perspectives, reducing the reliance on an arbitrary anchor.

Availability of Alternative Information: The availability of additional information or multiple anchors can help counteract the influence of anchoring bias. When individuals have access to diverse information, they are more likely to consider a range of factors and make more balanced judgments.

Time Pressure: Time pressure can exacerbate anchoring bias by limiting individuals' ability to thoroughly consider alternative options or information. When individuals are pressed for time, they may rely more heavily on the initial anchor as a shortcut for decision-making.

Understanding these factors can be helpful in mitigating the impact of anchoring bias. By consciously considering alternative information, seeking diverse perspectives, and allowing sufficient time for decision-making, individuals can reduce the influence of anchoring bias and make more rational and informed financial decisions.

4. Impact of Anchoring Bias on Financial Decision-Making

4.1 Effects of Anchoring Bias on Investment Decisions

Anchoring bias can have significant effects on investment decisions. Here are some ways in which anchoring bias can influence investment choices:

Perceived Value: Anchoring bias can impact how individuals perceive the value of an investment. If individuals anchor their expectations on a high initial stock price or a historical high market performance, they may perceive subsequent prices as relatively low. This perception can lead them to believe that the investment is undervalued and potentially influence their decision to buy.

Risk Perception: Anchoring bias can also affect individuals' perception of investment risk. If individuals anchor their risk assessment to a low-risk label provided by a financial advisor or a perceived low-risk historical performance, they may underestimate the actual risk associated with the investment. This underestimation of risk can lead to overly optimistic expectations and potentially increase the likelihood of financial losses.

Decision Paralysis: Anchoring bias can lead to decision paralysis, where individuals become fixated on a particular anchor and struggle to make a decision. This can occur when individuals anchor their expectations to a specific target price or return and are unwilling to deviate from it, even when presented with new information or market conditions that suggest a different course of action.

Irrational Exuberance: On the other hand, anchoring bias can also contribute to irrational exuberance, where individuals anchor their expectations to a high-performing investment or market and become overly optimistic about future returns. This optimism can lead to excessive risk-taking and speculative behavior, potentially resulting in financial losses when the market or investment does not meet their inflated expectations.

4.2 Influence of Anchoring Bias on Pricing and Valuation Decisions

Anchoring bias can significantly impact pricing and valuation decisions. Here are some ways in which anchoring bias can influence pricing and valuation:

Initial Price Anchors: Anchoring bias can lead individuals to anchor their pricing decisions to an initial price, such as the suggested retail price or a historical price. This anchoring can influence their perception of what is a fair or reasonable price, potentially leading to overpricing or underpricing.

Comparative Anchors: Anchoring bias can also

occur when individuals anchor their valuation judgments to comparable prices or valuations. For example, when valuing a company or an asset, individuals may anchor their valuation to similar companies or assets that have recently been sold or valued. This anchoring can influence their assessment of the value, potentially leading to biased valuation judgments.

Historical Anchors: Anchoring bias can occur when individuals anchor their valuation judgments to historical prices or valuations. For example, individuals may anchor their perception of a stock's value to its past performance or historical highs. This anchoring can influence their valuation and potentially lead to biased investment decisions.

4.3 Consequences of Anchoring Bias on Risk Assessment and Management

Anchoring bias can have consequences for risk assessment and management. Here are some ways in which anchoring bias can impact risk assessment and management decisions:

Underestimation of Risk: Anchoring bias can lead individuals to anchor their risk assessment to a perception of low risk, such as a financial advisor labeling an investment as low-risk or a historical period of low volatility. This anchoring can result in an underestimation of the actual risks associated with the investment, potentially leading to inadequate risk management and increased vulnerability to financial losses.

Overemphasis on Historical Performance: Anchoring bias can cause individuals to anchor their risk assessment to a historical period of positive performance or a previous successful investment. This anchoring can lead to an overemphasis on past performance as an indicator of future risk, potentially leading to complacency and a failure to adequately assess and manage current risks.

Inaccurate Risk-Reward Tradeoff: Anchoring bias can influence individuals' perception of the risk-reward tradeoff. If individuals anchor their expectations to a high potential return or a perceived low-risk level, they may overvalue the potential rewards and underestimate the associated risks. This can result in a skewed risk-reward assessment and potentially lead to unsuitable or risky investment decisions.

Inappropriate Risk-Taking Behavior: Anchoring bias can contribute to inappropriate risk-taking

behavior. For example, if individuals anchor their risk assessment to a low-risk label provided by a financial advisor or a perceived low-risk historical performance, they may take on more risk than is appropriate for their investment goals and risk tolerance. This can increase the likelihood of financial losses and negatively impact their investment outcomes.

It is important to recognize and mitigate the impact of anchoring bias on risk assessment and management. By actively seeking diverse information, considering alternative perspectives, and regularly reassessing risk factors, individuals can make more informed and balanced decisions regarding risk.

5. Mitigating Anchoring Bias in Financial Decision-Making

5.1 Strategies for Recognizing and Reducing the Impact of Anchoring Bias

Recognizing and reducing the impact of anchoring bias in financial decision-making is crucial for making more rational and unbiased choices. Here are some strategies to consider:

Awareness and Reflection: Being aware of anchoring bias is the first step in mitigating its impact. Take the time to reflect on your decision-making process and consider whether you are being influenced by an arbitrary or irrelevant anchor. Question the validity and relevance of the initial information you encounter.

Seek Diverse Perspectives: Actively seek out diverse perspectives and information sources. Engage in discussions with others who may have different viewpoints or expertise. This can help broaden your understanding and prevent you from relying solely on the initial anchor.

Consider Multiple Anchors: Instead of relying on a single anchor, consider multiple anchors or reference points. Compare and contrast different pricing, valuation, or risk assessment approaches to ensure a more comprehensive and balanced decision-making process.

Encourage Independent Thinking: Encourage independent thinking and critical analysis. Avoid automatically accepting or adopting the anchor provided by others. Challenge assumptions, evaluate the quality of the information, and consider alternative scenarios or possibilities.

Use Decision-Making Tools: Utilize decision-making tools and frameworks to

structure your thinking and decision-making process. Tools such as decision trees, scenario analysis, or cost-benefit analysis can help reduce the influence of anchoring bias by providing a structured approach to evaluating options and weighing different factors.

5.2 Role of Education and Training in Minimizing Anchoring Bias

Education and training play a vital role in minimizing anchoring bias in financial decision-making. Here's how they can help:

Awareness: Education and training programs can raise awareness about cognitive biases, including anchoring bias, and their impact on decision-making. By understanding the concept and recognizing its effects, individuals can be more vigilant in identifying and mitigating the bias.

Knowledge and Expertise: Education and training provide individuals with knowledge and expertise in their respective fields. This knowledge can help individuals make more informed decisions and reduce their reliance on arbitrary anchors.

Critical Thinking Skills: Education and training programs can foster critical thinking skills, which are essential for recognizing and challenging biases. By cultivating analytical and evaluative skills, individuals are better equipped to question the validity of anchors and consider alternative perspectives.

Decision-Making Frameworks: Education and training can introduce individuals to decision-making frameworks and tools that can aid in rational decision-making. These frameworks provide structured approaches to consider multiple factors and minimize the influence of anchoring bias.

5.3 Importance of Diversification and Independent Analysis in Decision-Making

Diversification and independent analysis are essential in mitigating the impact of anchoring bias and making sound financial decisions. Here's why they are important:

Diversification: Diversification involves spreading investments across different asset classes, industries, and regions. By diversifying, individuals reduce their reliance on a single investment or anchor and minimize the impact of any single investment's performance on their overall portfolio. Diversification helps to mitigate the risk of anchoring bias by ensuring a

more balanced and diversified approach to investment.

Independent Analysis: Relying on independent analysis, rather than solely on the opinions or recommendations of others, can help reduce the influence of anchoring bias. Independent analysis involves conducting thorough research, considering multiple perspectives, and relying on objective information. By seeking out independent analysis, individuals can make more informed decisions that are not solely influenced by an arbitrary anchor.

Due Diligence: Conducting thorough due diligence before making financial decisions is crucial. This involves gathering and evaluating relevant information, considering multiple sources, and critically analyzing the data. By conducting due diligence, individuals can minimize the impact of anchoring bias by ensuring a comprehensive assessment of the relevant factors.

By incorporating diversification, independent analysis, and due diligence into decision-making processes, individuals can reduce the influence of anchoring bias and make more rational and informed financial decisions. These practices help individuals to consider a broader range of information, perspectives, and potential outcomes, rather than relying solely on an initial anchor.

In summary, mitigating anchoring bias in financial decision-making requires awareness, seeking diverse perspectives, utilizing decision-making tools, promoting critical thinking skills, and incorporating diversification and independent analysis. By adopting these strategies, individuals can minimize the impact of anchoring bias and make more rational and unbiased financial decisions.

6. Conclusion

In conclusion, anchoring bias is a cognitive bias that can significantly impact financial decision-making. It occurs when individuals rely too heavily on an initial piece of information, known as the anchor, even if it is arbitrary or irrelevant. Anchoring bias can influence various aspects of financial decision-making, including investment decisions, pricing and valuation decisions, and risk assessment and management.

The effects of anchoring bias can be mitigated through strategies such as awareness and

reflection, seeking diverse perspectives, considering multiple anchors, utilizing decision-making tools, and encouraging independent thinking. Education and training play a crucial role in minimizing anchoring bias by raising awareness, providing knowledge and expertise, fostering critical thinking skills, and introducing decision-making frameworks.

Additionally, diversification and independent analysis are important in decision-making processes to reduce the influence of anchoring bias. Diversification helps to spread investments and minimize reliance on a single anchor, while independent analysis ensures a more objective and comprehensive evaluation of information.

By recognizing and actively addressing anchoring bias, individuals can make more rational, informed, and unbiased financial decisions, leading to better outcomes and mitigating potential risks.

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