The Availability Heuristic in Consumer and Financial Decisions: Evidence from Consumer Reviews and Investment Patterns

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Keywords: Availability Heuristic, Consumer Behavior, Investment Behavior, Cognitive Bias.

Abstract: The availability heuristic is a cognitive shortcut when people rely on examples immediately coming to mind. It is influential in consumer and financial behaviors. The research employs both theoretical analysis and review on empirical studies. For consumer behavior, online reviews and visual cues are used in the experiment to see how they will affect consumers' choices. One experiment by Nazlan, Tanford, and Montgomery, used manipulations of rating formats and visual cues in online reviews. Another experiment, by Thoma and Williams, examined additional information in consumers' brand choice. Financial behavior was examined with individual and institutional investor data to identify how different types of investors trade in response to market events. Results indicate that positive reviews with pictures significantly increase the odds of choosing a product, while negative reviews disproportionately impact due to negativity bias. Additionally, brand effect is a strong starting factor, but negative consumer reviews of a particular product significantly decrease the odds of well-known brands being chosen. In finance, individual investors are more vulnerable to recent news, trading volumes and extreme returns which leads to irrational decisions. Additionally, institutional investors are more rational and data-driven in their approaches.

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1 INTRODUCTION

The concept of availability was first described by psychologists Amos Tversky and Daniel Kahneman in 1973. Their seminal work defined availability as one of mental shortcuts that involves immediate examples that come into the mind when evaluating any topic, concept, method, or decision (Tversky &. Kahnemann, 1973). People tend to believe that an event is more probable or frequently occurring simply because instances of it are readily available in their minds, probably due to their recency, emotional impact, or vividness. This could result in a very irrational decision, as many decisions are highly influenced by judgment factors rather than objective data.

Availability heuristic plays an important role in real-life economic decisions, from consumer behavior to financial choices. From this viewpoint, the heuristic of availability influences both online product choices and brand preference while considering consumer behavior. Consumers simply like those products and brands frequently encountered in various media, advertisement, or social networks. In the context of financial domains, the heuristic of availability in shaping investment and financial behavior relies on influences of investors that tend to inflate probability assessment of occurrences having recent or emotionally striking experience. A sharp market fall can make investors more risk-averse, while stories of high-return investments can encourage risk-taking.

Understanding the availability heuristic is important for developing more nuanced economic theories and practices. Traditional economic models assume rational decision-making based on complete and accurate information (Wilkinson & Klaes, 2012). However, the availability heuristic shows that human decision-making is often subject to cognitive biases, leading to systematic deviations from optimal choices. By integrating the availability heuristic into economic models, researchers and policymakers can better predict and explain real-world behaviors, yielding more effective policy interventions and improved financial strategies.

Fei, Z.
The Availability Heuristic in Consumer and Financial Decisions: Evidence from Consumer Reviews and Investment Patterns.
DOI: 10.5220/0014149500004942
Paper published under CC license (CC BY-NC-ND 4.0)
In *Proceedings of the 2nd International Conference on Applied Psychology and Marketing Management (APMM 2025)*, pages 621-627
ISBN: 978-989-758-791-7
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2 INTRODUCTION TO THE RESEARCH OBJECT

2.1 Application of Availability Heuristic in Consumer Behavior

The availability heuristic plays a significant role in consumer behavior, particularly in the context of online product selection and brand preference. This mental model leads people to believe that options are more likely to occur if instances of them are readily available in memory; this is biased toward recent and vivid experiences. For example, a consumer who recently read a news report about the product recall of a particular brand is more likely to avoid products of that brand, even if the recall refers to another line of products, due to the increased salience of negative information in the mind. Moreover, positive experiences, for example, a friend enthusiastically recommending the product which could make that model more accessible in the consumer's mind and thereby more likely to be chosen. Marketers also use the availability heuristic by making their products more available in media, advertisements, and social networks. The more frequent a brand is exposed to a consumer, the more it will be available in the consumer's memory and therefore perceived as more popular or of higher quality. When brand messages are repeated in different channels, they provide a cognitive anchor, and the brand becomes a more favorable choice when the consumer is in a purchasing decision phase.

2.2 Application of Availability Heuristic in Investment and Financial Behavior

Another domain where the availability heuristic influences choice is in investment and financial behavior. This heuristic could cause investors to overestimate the probability of events that are more memorable or recent, usually because of their emotional impact or media coverage. For instance, an investor who recently experienced a sharp market fall might overestimate the chance of happening again and thereby be much more conservative, or maybe not invest at all (Baker & Wurgler, 2007). In contrast, positive market events or stories about successful high-return stocks could make such scenarios outstanding in the minds of investors to take on riskier investment options.

In the field of financial behavior, the availability heuristic could also influence how people feel about and handle risk. In cases where financial news predominantly features a specific kind of investment, such as cryptocurrency or real estate, investors may feel that those options are more viable or safer due to increased exposure, irrespective of the underlying fundamentals or long-term prospects. This may lead to herding behavior, where investors follow the crowd based on the most readily available information rather than on thorough analysis.

The heuristic can also influence the perception of financial advice and recommendations. For example, if an investor has a vivid experience with a financial advisor who had made a correct prediction or a friend who had made a good investment, he is likely to trust and follow similar advice in the future. This could lead to overreliance on anecdotal evidence rather than objective data and diversified investment strategies.

3 IMPACT OF AVAILABILITY IN CONSUMER BEHAVIOR

3.1 The Effect of Availability Heuristics in Online Consumer Reviews

The availability heuristic strongly influences consumer behavior as a result of online reviews. In cases where consumers happen upon numerous and accessible positive reviews, these cues will increase due to availability and improve perceived quality and desirability. Consequently, this enables consumers to develop favorable judgments and make a purchase choice in favor of the product. Apart from that, few but prominent negative reviews result in a disproportionate effect on consumer perceptions and eventually lead to a negative bias in product judgments and lower purchase intentions. This cognitive bias becomes more heightened with recent emotionally charged feedback, which, of course, is more memorable and salient in the consumers' mind. Apart from positive or negative reviews, other factors also make important contributions to consumers' decisions, such as rating format or visual cues. These factors together form an interaction effect which would influence consumers' behavior. The interactive effect of rating formats and visual cues enhances the salience of information, increasing consumers' reliance on availability heuristics by making specific information more accessible. This significantly influences consumer behavior, guiding them toward particular choices.

One experiment performed by Nazlan, Tanford, and Montgomery (2018) could help to prove the theory. The experiment was conducted online. Each participant would see a review page featuring a photo and information of a restaurant, followed by five reviews. The format manipulation involved how the ratings of each review were presented. Under the numerical condition, the ratings were shown as numbers ranging from 2.5 to 5, depending on the sentiment condition. Under the star condition, the ratings were displayed as yellow graphical stars, also ranging from 2.5 to 5 stars. Meanwhile, visual cues were manipulated by whether the target item's photo was attached to the reviews. To enhance the realism of the scenario, internal photos of the restaurant were used as visual virtual objects. In the no-photo condition, no reviews had any attached photos. The experimental results employed a series of 2×2×2 ANOVA (Analysis of Variance) to examine the main effects of rating format, picture presence, as well as their interaction effects on these the dependent variables: menu item evaluation, choice likelihood, and item selection. The results show that when consumers see positive reviews with pictures, they are more likely to choose the target object. This aligns with the availability heuristic, as pictures provide concrete and easily memorable visual information, enhancing consumers' memory and impression of positive reviews, ultimately making them more inclined to choose the dish. While the format of the rating did not have a significant effect on the likelihood of choosing. However, when the rating was in numerical format, the presence of a picture significantly increased the willingness to choose, further supporting the availability heuristic. This is because numerical ratings are more specific, and when combined with pictures, they can more effectively enhance consumers' impression. The negativity bias theory can also be proven by this experiment. Negativity bias refers to the tendency for negative information to be more easily noticed, remembered, and to have a stronger impact compared to positive information during the processes of perception, evaluation, and memory (Baumeister et al., 2001). In this experiment, the images in negative reviews do not have a significant impact on choice intention, which supports the negativity bias theory, suggesting that consumers place greater importance on negative information. Even though images can enhance memory and impression, the strong influence of negative information makes the role of images in negative reviews insignificant. This is related to the availability heuristic, as negative information is more easily remembered and retrieved by consumers, thus playing a more important role in their decision-making.

The results showed that positive reviews with pictures increased the likelihood of choosing the target object, aligning with the availability heuristic. Numerical ratings, when combined with pictures, further enhanced this effect. However, images in negative reviews had a negligible impact on choice intention, supporting the negativity bias theory, which posits that negative information is more salient and influential. Despite the memory-enhancing role of images, the interaction effect is overshadowed by the stronger impact of negative information on decision-making. Therefore, marketers could utilize psychological attributes in the application of consumer market strategies, as well as company marketing elements and promotional strategies, to influence consumer choices (Zhang, 2022).

3.2 The Effect of Availability on Consumer Brand Choice

The availability heuristic also uses brand effects to have an influence on consumer behavior (Kwun & Oh, 2004). When a brand is always available, it increases consumer recognition and familiarity, which are significant in the brand selection process. Besides, the ease of access to a brand's products or services can reduce the cognitive effort required for purchase decisions, making the brand a more convenient and attractive choice. In environments with multiple brands competing, availability acts as both a barrier to entry for new competitors and a major advantage for established brands. It facilitates impulse buying and repeat purchases, thereby fostering brand loyalty. However, brand effect is not the only factor influencing consumers; when negative evaluations become overwhelmingly powerful, they can weaken or even exert a negative impact on the brand effect of well-known brands. In the real world, the interaction effect should also be taken into consideration. Negative reviews often stand out more than positive ones because they tend to be more detailed and emotionally charged. Therefore, consumers may overestimate the likelihood of having a negative experience with the brand because the negative reviews are more readily available in their memory.

One of the studies, by Thoma and Williams (2013) researched the role of the availability heuristic in consumer brand choice. This study integrates empirical data from a forced-choice task involving pairs of consumer products where one brand is famous and the other is obscure, exploring how additional information in the form of consumer ratings influences decision-making. 62 individuals participated in this study (with 40 of them being female). Participants were students and public of the University of East London. The sample primarily consists of young students who are still in school and have a certain level of engagement with daily expenses, making them suitable subjects for this study. These results suggest that even though brand recognition plays an important initial role in consumer preference, negative ratings by consumers may weaken the brand effect to a longer response time and lower proportion of choices for a famous brand. This research gives some interesting insights into how brand effect interacts with extra information in the choice made by consumers. Whereas brand effect was a strong initial factor, the presence of negative consumer ratings strongly lowered the choice probability of the recognized brand. Moreover, consumers appeared to include additional information (for example, positive or negative ratings) in their choice process, even when recognition was a dominant factor. This conclusion is further supported by the longer response times in the negative condition. This indicates that respondents are more introspective when conflicting information is provided, taking a little more time to set the negative ratings against their immediate recognition of the brand.

Therefore, the interaction of the brand effect with additional information is a very important application of availability heuristic in consumer behavior. However, the negative consumer ratings may be balanced out. Since most negative consumer ratings tend to stick in the consumer mind than the positive ones as well, due to negativity bias. Thus, the interaction of the brand effect with additional information ultimately influences the consumer in their final decision.

4 IMPACT OF AVAILABILITY IN INVESTMENT AND FINANCIAL BEHAVIOR

Human choice, influenced by the availability heuristic in investment and financial behavior, may further lead to inappropriate investment choices. The behavioral biases in financial decision-making, particularly those influenced by the availability heuristic, can precipitate suboptimal investment choices (Kliger & Kudryavtsev, 2010).

The availability heuristic refers to the tendency of individuals to overestimate the probability of occurrences that are more prominent or recent in their memory. On the one hand investors who have recently experienced a large market decline are likely to be particularly risk-averse and perceive the probability of subsequent declines as larger than would be suggested by historical market movements. On the other hand, overconfidence about future returns and underestimation of risks will make investors overconfident if they have enjoyed relative stability or growth, also resulting in inefficient resource allocation and overreaction to volatility. Apart from that, social media are imbued with an extraordinary quantity of coverage regarding unusual market events, which thereby skews investor perception. While negative market news makes up only a minor fraction of the total economic data, it is usually more memorable and therefore more accessible in investors' minds. The availability heuristic also provides an explanation for the formation and collapse of investment bubbles. This can be seen in the way information on specific assets or sectors spreads and becomes popular, thus reinforcing the positive beliefs of an increasing number of investors who, in turn, invest more. On the downside, negative news spreads like a wildfire, leading to panic selling and sharp declines in prices. These dynamics are further exaggerated by the availability heuristic, where investor decisions are disproportionately based on information that is most immediate and salient to them.

One experiment by Barber and Odean (2008) shows that attention-grabbing events affect the buying and selling decisions of individual and institutional investors. The study employed four different datasets, which were important in capturing a wide range of investment behaviors from unsophisticated individual investors to sophisticated professionals. It isolated news reports, abnormal trading volumes, and extreme returns as the most likely types of events to draw investors' attention. Such measures are considered proxies for investor attention in this study because the direct measurement of attention is extremely impractical. The entire experiment can be divided into four parts. Firstly, the preparation of the data, which deals with acquiring and cleaning the trading data for individual and professional investors. Secondly, data classification, where stocks are classified into different deciles and vigintiles based on trading volume and stock price changes. Thirdly, computation of the Buy-Sell Imbalance (BSI). This is an important metric in the study. When BSI is greater than 0, it means that investors tend to buy the stock, and the higher the value, the stronger the buying intention. On the contrary, if BSI is less than 0, it indicates that investors tend to sell the stock, and the lower the value, the stronger the selling tendency. The last step is the comparison of data; by comparing the BSI of individual investors and professional investors in different groups, several conclusions can be obtained from the experiment.

The outcome of the experiment can be divided into three parts, in which each part displays the buying and selling behavior of both individual and institutional investors. First, it is the classification according to the trading volume. From the investor's perspective, the BSI shows a monotonic increase with increased stock trading volume. That means stocks traded with higher trading volumes have a higher BSI, indicative of a stronger buy sentiment. For example, the BSI of the bottom decile stocks in terms of trading volume is negative, at -18.15% and -16.28%, indicating a slight advantage on sell; but for the top vigintile, BSI shows a positive value, +29.5% or +17.67%, which means a large buy advantage. However, for institutional investors, the BSI is positive for the lowest trading volume stocks and gradually decreases as trading volume increases. Overall, these institutional investors show a tendency that is opposite to that of individual investors: their BSI is higher on low-trading-volume days compared to high-trading-volume days. Secondly, the classification by returns. Individual investors show high attention-driven trading behavior, especially when the stock performed extremely the previous day. They demonstrate a high purchasing propensity for those stocks that had a poorer performance during the previous day: 29.4% of BSI sharply dropped to 1.8% for the averagely performed stocks and once again increased up to 24% for the best. The individual investor reacts more to high volatility in the markets, especially as regards buying the worst performing stocks, while the evidence obtained for the different patterns of behavior for institutional investors proves to be different. For momentum managers (managers who buy assets with strong recent price performance and sell those with poor performance), they have a tendency to sell the worst performing stocks and to buy the best performing ones. For value managers (managers who seek to identify and invest in undervalued assets, believing that these investments will eventually return to their intrinsic value), the opposite is true: They tend to buy the worst performing stocks and to sell the best performing ones. Diversified managers take a more neutral view. Therefore, their investment strategies match the extremely good or bad return rather than blindly following. Lastly is the news categorization. Stocks that have news attract investors more as it has a higher net buying ratio as compared to without news stocks. Large discount brokerages and large retail brokerages show identical trends. Namely, 2.70% of BSI in large discount brokerages stocks do not report news, whereas 9.35% for the with news stocks. For large retail brokerages, the BSI for no-news stocks is -1.84% while that for news stocks is 16.17%.

In summary, the experiment provides substantial evidence of the availability heuristic in financial investment decisions. Individual investors are more susceptible to being influenced by easily available information, such as high trading volumes and recent news, which can lead to emotional and often excessive reactions. Institutional investors, particularly those with specialized investment strategies, exhibit a more rational and data-driven approach, indicating that their decisions are less swayed by the availability of market attention. This distinction offers valuable insights into the different behavioral patterns observed in the market, highlighting the importance of information availability and its differential impact on various types of investors. Relevant investment experience or education can help investors to some extent avoid the influence of availability heuristic.

From this analysis, abnormal trading volume appears to be the best indicator of attention, followed by returns. News indicator seems to be the least informative metric indicating attention. In conclusion, individual investors might be affected by the availability heuristic in determining the stocks to sell and buy. Therefore, profit opportunities are possible for professional investors by adapting trading strategies to benefit from such situations in the short run. Availability heuristic could encourage irrational exuberance and market bubbles. Irrational exuberance refers to speculative manias or excessive optimism in financial markets (1997). The availability heuristic fuels this exuberance by making positive outcomes seem more likely and negative outcomes seem less likely. The more news about an asset spread, including stories of success and increasing wealth, the more investors will bid its price up above intrinsic value. This is the beginning of a bubble-a situation where the market price of an asset is way out of alignment with its fundamental value. Eventually, the bubble becomes unsustainable, and it bursts. In addition, when negative information starts to spread or a few investors start selling, this mania can easily turn into a rapid price decline. The same availability heuristic that initially produced the bubble reinforces negative market sentiment now, and a market crash ensues.

5 DISCUSSION AND SUGGESTION

5.1 Holistic Conclusion

The availability heuristic heavily influences consumer behavior and financial decision-making; thus, understanding and addressing this cognitive bias is paramount. In consumer behavior, the availability heuristic plays a major role in how consumers make choices, especially in online environments. Positive and vivid experiences tend to be associated with products to which consumers are more likely to be attracted, and which are more memorable in their minds. Additionally, availability heuristic has a stronger and more lasting impact due to the negativity bias. The study's findings on the effect of availability heuristic in online consumer reviews are particularly noteworthy. Positive reviews, especially with pictures, significantly raise the chances of a consumer choosing a product and adding numerical ratings could further increases such likelihood. Negative reviews, even with the support of images, have little significant effect on choice intention. That means, although consumers have been more influenced by positive visual and numerical information, the negativity bias appears to have taken an upper hand over their choice pattern. In the financial domain, availability heuristic also impacts individuals' behaviors. Individual investors often make decisions based on readily available information, such as volumes of trade in the stock or recent news reports of companies, with most reactions very emotional and excessive. By contrast, institutional investors, particularly those with specialized investment strategies, would base more of their decisions on comprehensive data and rational analysis; therefore, their decisions would be less prone to market attention and more anchored in the dynamics of long-term markets.

5.2 Suggestions and Implication

5.2.1 Suggestions for Consumers

While positive reviews and images are often convincing, consumers should be exposed to a wider range of data, such as negative reviews and objective product information. In this way, consumers will be better prepared to make a more informed decision that is more balanced and less susceptible to the availability heuristic and negativity bias. While making a choice, diversified opinions play an equally critical role in helping make a decision. A friend's recommendation or just one online review is not sufficient for making a choice; rather, one needs to consult diversified opinions and obtain information from a range of sources before a purchase. The diversified opinions would involve reading multiple reviews, checking expert opinions, and comparing different products based on price and features.

5.2.2 Suggestions for Investors

Seeking comprehensive information is a vital step to avoid availability heuristic. Relying solely on recent or emotionally charged information can lead to biased and suboptimal decisions. Investors should seek out and consider a comprehensive range of data, including historical market trends, financial statements, and expert analysis. This holistic approach can help in making more informed and rational investment choices. Besides, professional financial advisors and institutional investors often have more robust and data-driven investment strategies. Investors should consider seeking advice from these professionals to gain a more balanced and informed perspective. This can help in making decisions that are less influenced by cognitive biases and more aligned with long-term financial goals.

6 CONCLUSION

In conclusion, this study essentially investigated that the availability heuristic was a strong determinant of consumer choice, especially in online domain. Addition of visual cues to positive reviews strongly enhances choice probability. Moreover, negative reviews are more powerful due to negativity bias. Brand recognition increases initial consumer preference but is diminished when negative consumer ratings occur. In financial and investment market, individual investors are much more sensitive to recent news and trading volume, which can drive them into making emotional and sometimes irrational decisions, whereas institutional investors are more rational and data-driven in their approaches.

The consumers can decrease this bias by finding their information from diversified sources and checking several reviews. Additionally, investors should look for comprehensive data and professional advice to avoid reliance on recent or emotionally charged information. In light of this understanding, the availability heuristic is highly instrumental in building subtle economic theory and practice. This paper calls for a need to begin thinking of cognitive biases of both consumers and investors on the part of policymakers and marketers. By such investigation, better strategies could have been formulated that might guide the choices of consumers toward the stabilization of financial markets into a more rational and informed environment of decision-making.

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