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Hindsight Bias and its Significance to Investor Decision Making

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ABSTRACT *Investors today have numerous investment alternatives and there is no dearth of information available to them to support these alternatives. The rational model does not seem to work during investment decision making, as investors seem to be weighed down by behavioral biases. This paper is an attempt to get an insight on one such bias, i.e. the hindsight bias. From the economic perspective, hindsight behavior can have significant consequences on investment behavior as it alters their perception on asset allocation and thereby increase the risk exposure. Investors with hindsight bias, become overconfident leading to inferior investment decisions. This article gives an understanding of the influence of hindsight bias, through a review and discussion of the earlier work done in this context.*

Summary

It is indeed very common to hear people say "I knew this would happen". Most of us seem to have this innate ability to predict the outcome of events, but only after the event has happened. Be it the stock market crash after S&P's downgrading of U.S. credit rating, the collapse of Lehman Brothers and the following recession in 2008, the Dot com bubble burst in2001 or the Bhopal Gas Tragedy we see some expert saying that everyone knew that the disaster was in the making. One wonders if they were so predictable, why was it not prevented in the first place? Psychologist call this concept as 'Hindsight Bias' which is an inclination to see events that have already occurred as being more predictable than they were before they took place. They attribute hindsight bias to our innate need to find order in the world by creating explanations that allow us to believe that events are predictable. This tendency in human beings has its implications. This paper attempts to explain the concept of hindsight bias and how it can cause memory distortions among investors. This paper discusses the hindsight bias in the context of investor's decision making. Its adverse effects and how an awareness of this bias can help investors make informed choices. The first section of the paper gives a brief description of what Hindsight Bias is and explains the concept with the SARA model. This is followed by a review on hindsight bias which gives an insight into the concept and how this bias has various implications in decision making. It concludes with a discussion on the implications to the investor and how an awareness of the same can help investors in decision making.

Hindsight Bias

Hindsight bias is also referred to as 'knew it all along' or 'creeping determinism' concept. It is the impulse that insists 'I knew it all along'. Once an event has elapsed people afflicted with hindsight bias tend to perceive that the event was predictable even though it wasn't. Unpredictable developments bother people and are sometimes an embarrassment to be caught off guard. Hindsight bias alleviates embarrassment under these circumstances. Hindsight bias is the tendency of people, with the benefit of hind sight following an event, to falsely believe that they predicted the outcome of that event in the beginning.

Hindsight bias may cause memory distortion, where the recollection and reconstruction of content can lead to false theoretical outcomes. It has been suggested that the effect can cause extreme methodological problems while trying to analyze, understand and interpret results in experimental studies. A basic example of hindsight bias is when after viewing the outcome of a potentially unforeseeable event a person believes he or she 'knew it all along. Such examples are present in the writings of historians, describing the outcomes of battles, physicians recalling clinical trials and in judicial systems trying to attribute responsibility and predictability of accidents. Hindsight bias presents major problems for investors in their investment decisions.

Cognitive Model – SARA

Rudiger Phol[1] and his associates, created the model SARA (Selective Activation and Reconstructive Anchoring) one of the cognitive models explaining Hindsight Bias. This model assumes that people have a set of images to draw their memories from. They suffer from hindsight bias due to selective activation or biased sampling of that set of images. Basically, people only remember small select amounts of information and when asked to recall it at a later time they will use that biased image to support their own opinions about the situation. The set of images is originally processed in the brain when first experienced. This makes one to believe that this new information when remembered a later time is the person's original memory. Due to this reactivation in the brain a more permanent memory trace can be created and the new information acts as a memory anchor causing retrieval impairment.

Implications of Hindsight Bias – A review

Fischhoff (1975)[2] was the first to study on one of the most relevant memory distortion called the hindsight bias. One of the most important studies by Baruch Fischoff and his team on hindsight bias was conducted just as President Nixon (US) was about to leave for his historic trip to China. He asked people to rate the probabilities of various outcomes to Nixon's trip. What Fischoff and his team found was that when people were asked about their predictions after the president's trip had concluded, the subjects remembered assigning higher probabilities than they actually had, to events that they thought hadn't occurred.

In another experiment Fischoff asked the subjects questions on general knowledge (questions from almanacs and encyclopedia). After revealing the correct answer, he asked his subjects to recall original responses from memory. In general people overestimated the quality of their initial knowledge and forgot their initial errors.

Richard Posner[3] noted that outcomes exert irresistible pressure on their own interpretations. In hindsight, blunders with happy results are described as tactical moves and unfortunate results of choices that were well grounded in available information are described as avoidable blunders.

Camerer, Loewenstein &Weber [4](1989) found that hindsight bias induces individuals to be overconfident and to overreact to new information.

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Werth, Strack & Forster (2002)[5], found that an individual's high confidence levels in their prior estimates, i.e. those made before knowing the outcome information, and a low confidence level in their recalled estimates , after receiving the outcome information will induce hindsight bias for the subject

Marco Monti and Paolo legrenzi[6] investigated the relationship between investment decision making and hindsight bias. They found strong evidence that hindsight bias can have on the investor's portfolio decision. They analyzed subjects overall perceived error by focusing on the causal relations between estimate and memory errors. The participants were asked to forecast economic scenarios and to accordingly decide how to invest their money after reading an article about the state of a hypothetic economy. About half of the students and two third of financial advisors belonging to the test groups confused their original predictions with the information they received at the end of the test, thereby revealing hindsight bias.

Philip Tetlock [7](2005), a psychologist at the University of California, Berkeley, carried out one of the biggest exercises on testing predictions. In the experiment, Tetlock chose 284 people, who made a living by predicting political and economic trends. Over the next 20 years, he asked them to make nearly 100 predictions each, on a variety of likely future events. With more than 28000 predictions, he assessed their results and concluded that on an average, experts did only a little better than 'a dart throwing chimpanzee' and by some measure no better at all.

Also Tetlock identified the traits that made for more or less successful punditry. Those who did particularly badly were not comfortable with uncertainty and complexity and sought to reduce the problem to some theoretical scheme. These experts were more confident than the others that their predictions were accurate. It is interesting to note that the experts who were more accurate than others, tended to be much less confident that they were right.

Bruno Biais & martin Weber (2008)[8], in testing the hypothesis that hindsight bias hinders learning about risk, they conducted a lab experiment with 67 students from Mannheim University. The experiment involved two treatments , one in which the participants were reminded of their initial estimates, thus muting their bias, and in the second one the participants were asked to remember their initial estimates , so that the bias could manifest itself. Agents gave lower volatility updates in the second treatment than in the first confirming hindsight bias.

In another experiment to test the hypothesis that hindsight bias hurts financial performance, they collected psychometric and performance data about highly paid investment bankers. They found that they exhibited hindsight bias when asked questions about economics, banking and finance and that experience does not reduce this bias. They also found that bankers with low bias obtain significantly better performance.

Mangelsdorff and Weber(1998)[9], in their study of the principal agent relationship, shows how hindsight bias prevents the principal from correctly evaluating the agent.

Baron and Hershey (1998)[10] asked their subjects to evaluate decisions and found that the subjects rate the decision maker better when the outcome was favorable than when it was not. The principals fail to remember what was known, when the agents decision was taken.

Bukszar and Conolly (1988)[11] in observing students analyzing business cases, found that hindsight bias hindered learning from past experience.

Michael Pompian [12]list out the following behaviors of hind sight biased investors which can have investment implications.

1. When an investment appreciates, hindsight biased investors tend to rewrite their own memories to portray the positive developments as though they were predictable. Overtime this rationale can inspire excessive risk taking, because hind sight biased investors tend to believe that they have superior predictive abilities when in fact they do not.
2. These investors can rewrite history when they fare poorly and block out recollections of prior incorrect forecasts in order to alleviate embarrassment.
3. They can unduly fault their money managers when funds perform poorly.
4. Conversely, hindsight bias can cause investors to unduly praise their money managers when funds perform well.

Conclusion

An insight into the earlier studies reveals that hindsight bias may hinder rational thinking in investors. One of the most obvious results of hindsight bias is overconfidence among investors. Overconfidence makes investors believe that just because they predicted past events, they can do the same for the future and invest accordingly. The biggest implication for investors is that it can prevent learning from mistakes as hindsight bias gives investors a false sense of security when making investment decisions. When investors fail to remember how well they have evaluated risk in the past, it can lead to bigger mistakes. This can manifest itself in excessive risk taking behavior and place people's portfolio at risk (Michael Pompian). Awareness on the part of the investor of hindsight bias and how it leads to forming inaccurate beliefs about asset returns, can prevent them from making wrong investment decisions.

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