RIDDLE ME THIS: ARE YOU AWARE OF BEHAVIOURAL DECISION-MAKING INFLUENCES?

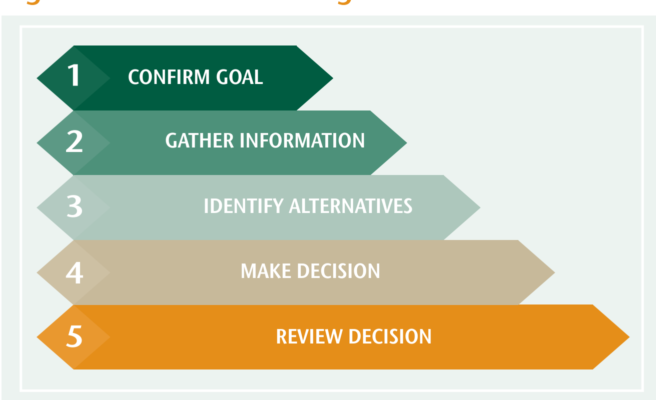
Our minds are riddled with a variety of behavioural influences that can help us act quickly in the face of danger. However, these same influences can make it difficult to assess the expected outcome when trying to make effective decisions.

Most of us sit on a committee of some type that requires the group to make decisions. Lurking in the background are disruptive behavioural influences, many of which we are not even aware of. This article highlights the different types of influences and provides advice on how to best manage them.

Behavioural Gap

On the surface decision-making sounds straight forward; it's a process where you select from among a series of alternative choices (Figure 1).

Figure 1 - Decision-Making Process



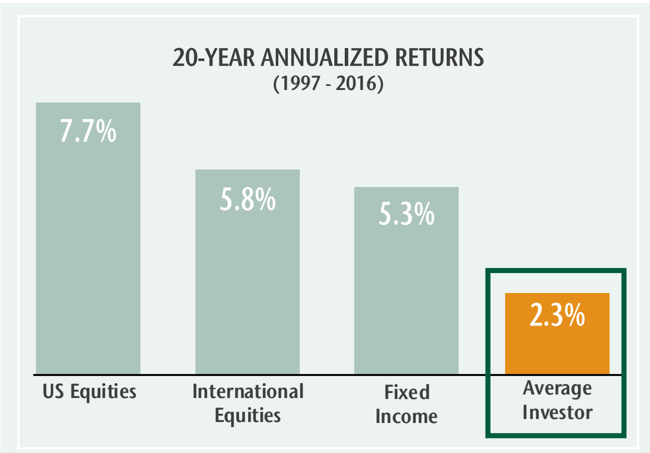
The first step is to confirm the goal you are trying to achieve. For an investment committee, the goal could be to achieve a higher return than what the current asset mix is expected to generate. The next steps require information to be gathered to identify potential alternative choices, which are evaluated by assessing the evidence collected.

Making the decision is not the final step of the process; that comes later when analyzing whether the decision made achieved the goal. For most investment committees, the implications are not immediately apparent. Therefore, the timing of a review of decisions may not be until five or more years' time, but it is important for it still to be done.

While the process is seemingly straight forward, the outcome does not always go as planned. For example, an investment committee is often spoiled for choice when it comes to solutions expected to deliver good investment returns. However, the return the committee ultimately earns can be substantially less due to behavioural influences. This "behaviour gap" can impact committees and individual investors alike.

The independent research company DALBAR undertakes quantitative analysis of individual investors' mutual fund purchases and sales. Figure 2 shows the annualized index returns a US investor could have earned over a recent 20-year period for US equities, international equities, and fixed income. For the investors analyzed, the average return fell well short of the individual asset class returns[1].

Figure 2 - Behavioural Effect on Returns



Source: DALBAR QAID 2017. US equities is S&P500 Index, International equities is MSCI EAFE Index and Fixed Income is Bloomberg Barclays US Aggregate Bond Index

DALBAR concluded that an individual's investment result is more dependent on behaviour than on the underlying fund performance. While the analysis is for individuals, committees can suffer from similar performance shortfalls due to behaviour. A combination of good investments and good behavior is required to prevent the risk of a behaviour gap. Being aware of the various decision-making pitfalls can help facilitate good behaviour.

Assessment Challenges

One pitfall is the challenge when assessing the likelihood of an occurrence. For example, can a company on the verge of bankruptcy recover to become the largest company in the world? It is possible; Apple did just that over the course of 1998 to 2012. Could a company on the verge of bankruptcy today do the same? While it is possible, it is not very probable.

Probability is the term used to describe the chance of a particular outcome. Dutch mathematician, Daniel Bernoulli, tried to make decision-making easier by solving a simple relationship: "the expected value = the odds of a gain multiplied by the value of the gain". If the expected value is greater than the investment, then the odds of success are good. Unfortunately, we can be bad at assessing both the odds and value.

For example, despite the terrible odds, many people play the lottery. The decision to play is influenced by seeing the winners on television collecting their over-sized, life-changing cheques. In contrast, watching the millions and millions of losers being interviewed would not make for good television viewing, but the likelihood you would play the lottery would be very small.

We can also struggle to estimate value. For example, how many of us have searched online for a family vacation and found a really good deal, but then waited a few days before making a decision to book the vacation? When we go back to the website, the price of the vacation is now much higher. The previous lower price impacts our decision and we typically pass on the deal.

Comparison to the past can also impact our assessment ability in an investment committee role. In particular, there is often too much focus on recent changes in market valuations, compared to the longer-term fundamentals.

Decision-Making Influences

There are a myriad of decision-making biases and influences to be aware of. Some of the key ones are:

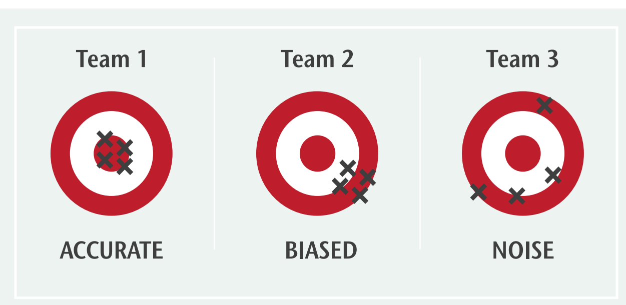
- **Confirmation bias:** This bias happens most frequently at the second stage of the decision-making process when information is gathered on potential alternatives to meet the stated goal. Too much focus is placed on information that supports or confirms a viewpoint, and less weight is placed on information that goes against the view. Not taking into account information that goes counter to our views, can lead to an under-appreciation of the risks associated with the decision.
- **Cognitive dissonance:** This bias is about inconsistency, such as when we try to hold on to two thoughts that are inconsistent with one another. For example, someone who smokes has inconsistent thoughts; I like smoking and smoking is unhealthy. In this example, the inconsistency can be resolved if the individual stops smoking. However, more typically new thoughts are added in an attempt to rationalize the inconsistency. For example, a smoker may rationalize the inconsistency by making the case that while they like smoking and it is unhealthy, they regularly exercise and have a healthy diet.

- **Anchoring:** Anchoring is common in many walks of life. For example, it is a tool used by car salespeople where sticker prices on cars in the lot are much higher than what buyer ends up paying. It anchors the negotiations for salesperson to obtain the price they want, but makes the person buying the car feel like they got good deal by paying much less than the sticker price.

  Anchoring plagues most investment committees, specifically when an asset mix review is being carried out. It would be rare to have a situation where potential changes to the asset mix are not compared to the current mix. Anchoring the decision in this way makes it emotionally difficult to stray too far from the current mix, which may not be in the best interest of meeting the strategic goals.

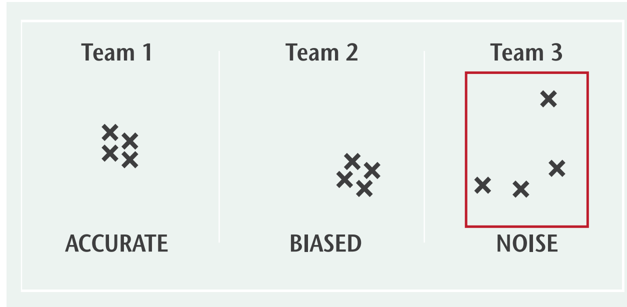
- **Noise:** With human judgement, there's noise and usually more of it than we realize. Our judgement is strongly influenced by irrelevant factors, such as current mood, the weather, or time we last ate. To appreciate the difference between noise and biases, Figure 3 shows the target practice for three teams[2]. The first team is accurate with the shots near the bullseye and close to one another. The second team is biased with the shots all missing the bulls eye, but clustered together. The third team is noisy with the shots widely scattered.

Figure 3 - Noise vs Bias



Unlike biases, noise can be measured even without knowing what an accurate response would be. For example, removing the targets from the illustration Figure 4, suggests there is something wrong with the scattered shots of the third team compared to the other two teams[2]. The key is to review decisions to check to see if they could have been influenced by some form of noise.

Figure 4 - Measuring Noise



- **Decision fatigue**: Perhaps the most common influence is plain and simple decision fatigue. The number of decisions we are required to make in any one day leads to our willpower being depleted and we put off decisions, or worse make bad ones.

  An example of the impact of decision fatigue is based on research on parole decisions where parole was granted in about a third of cases[3]. The biggest factor in determining whether someone was paroled was the time of the day of their hearing. Those with an early morning hearing were paroled 70% of the time, while those late in the day were paroled less than 10% of the time. Most people, and in the parole hearing example, the judges are not aware of being low on decision-making energy, which can be tied to low glucose levels. Replenishing glucose levels restores our ability to make more effective decisions.

Managing Biases And Influences

Biases and influences cannot always be avoided when making decisions, but they can be managed. Firstly, make time on meeting agendas to assess the committees' effectiveness. Investment committees spend a lot of time assessing investment manager performance, but time should also be set aside to review how decisions turned out relative to expectations, even if requires reviewing the decision in five years' time.

The best way to tackle decision-making influences is to understand what they are and their potential to disrupt decisions. For example, when assessing alternative choices, it is important to understand the likelihood of an occurrence and focus on the probable outcome, rather than worrying about possible outcomes.

In managing biases, being aware they exist can go a long way to limiting their influence. For some, such as anchoring, there needs to be an openness to doing things differently. Investment committees can benefit from not being tied to the influence of the current mix when undertaking an asset mix review. This could be achieved by disguising the results for the different asset mixes, so committee members are not aware which set of results is for the current mix.

Having a committee that is cognitively and demographically diverse helps manage biases and influences. Cognitive diversity is the inclusion of individuals with different styles of problem solving, who think differently. Demographic diversity focuses on complementary gender, ethnic and age representation. Both types of character sets provide checks and balances to the decision-making process by maximizing the likelihood of an objective viewpoint on the committee.

Noise can be reduced when there are clear processes to follow. For example, the processes in place when getting money from a bank teller limit the judgement of the teller, therefore noise is unlikely to be a factor in getting the right amount of money. To be free of noise, it's best to avoid human involvement through the use of technology, which in this example is possible because of the introduction of ATMs.

However, it's not always possible to introduce technology, especially for more subjective and interpretational roles such as that of a committee overseeing the investments of a pension plan or endowment and foundation. Instead, good processes and a formal review of decisions goes a long way to avoid inconsistencies due to noise.

To manage decision fatigue, the best option is to schedule meetings early to improve the odds of making effective decisions. If meetings late in the day cannot be avoided, then agenda items should be organized with most important first, when energy levels are higher. Having snacks available to provide a recharge of energy levels will also improve decision-making.

Solve The Riddle And Manage The Gap

Sitting on a committee provides an opportunity to contribute to something that has personal relevance. Committee participation requires many decisions be made. For an investment committee, it is not possible to control how the investments will perform, but it is possible to manage how biases and other influences can negatively impact decisions. Being aware of behavioural pitfalls can not only benefit decision-making, but also improve your long-term returns by minimizing the behavioural gap from biases and influences.

1 DALBAR QAID 2017. 2 Noise: How to Overcome the High, Hidden Cost of Inconsistent Decision Making" by Daniel Kahneman, Andrew M. Rosenfield, Linnea Gandhi, and Tom Blaser. 3 Tierney, John (August 21, 2011). "Do You Suffer From Decision Fatigue?" New York Times Magazine

References: Kahneman and Tversky; assorted references:, Leon Festinger, A Theory of Cognitive Dissonance, Sherif et Al, Assimilation and contrast effects of anchoring stimuli on judgements

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