Biases helping managers make better decisions psychology essay

Profession, Manager

In the business world managers are presented with a multitude of problems on a daily basis, some of which require quick on the spot decisions whilst others require more depth in knowledge. The decisions and judgements made by managers are based on beliefs relating to outcomes of events. These managers rely on heuristic principles and it is these heuristic principles which also determine the outcome of a bias in their decisions (Kahneman, et al., 1982).

Heuristics are those rules of thumb, cognitive techniques, which people use to reduce the amount of information processioning that is required when making decisions. An employer for example might use the heuristic of " untidily dressed candidates are messy workers" while making their hiring decisions. The example given allows the employer to narrow down the list of potential candidates by only taking into consideration those that are neatly dressed and eliminating candidates that are untidily dressed before giving each a fair chance. Sometimes these heuristics work and at times as is the case in the example they are quite misleading and hence lead to biases and discrimination.

Biases occur when people have tendencies to make decisions based on cognitive factors rather than considering the actual facts as evidence. These biases generally occur as a consequence of using the information processing shortcuts; heuristics, as was the case in the earlier mentioned example. A common product of human thought are biases, and it is these biases which can easily skew the reliability of the evidence which people present in their decisions or facts (Bazerman & Moore, 2009).

Biases emanate from heuristics and are classed accordingly. Heuristic driven biases consists of behavioural concepts such as availability, representativeness, affect and confirmation. Common biases emanating from the availability heuristic include ease of recall and retrievability biases. Representativeness heuristics encompasses biases occurring as a result of insensitivity to sample size, base rate fallacy, misconceptions as result of chance and regression to the mean as well as others. Biases that are classed with the confirmation heuristic are those concerned with anchoring and adjustment and overconfidence as well as the hindsight bias. There are a large number of heuristics and biases that people might be subject to though only a small set of these are discussed in this paper.

This paper will look into highlighting only a subset of these biases and heuristics, trying to concentrate on the more common ones which are more likely to affect managers in their decision making processes on a daily basis. Biases originating as a result of the availability heuristic such as ease of recall and retrievability; the representativeness heuristic biases of insensitivity to sample size, misconception of chance, regression to the mean; the confirmation heuristic biases of anchoring and adjustment as well as overconfidence will be discussed in further detail. A look into how these cognitive concepts affect the decision making process and how managers benefit from understanding these concepts will be explored.

AVAILABILTY HEURISTIC DRIVEN BIASES

We use the availability heuristic in our decision making processes when we make judgements on the basis of how easily we can bring to the forefront of

our minds, information of various instances that relates to a scenario which is under consideration. According to Tversky & Kahneman (1973) it is our life experiences which have taught us that instances of larger classes are recalled better than instances of less frequent ones, occurrences which are more likely to happen are easier to imagine than the more unlikely ones, and associative connections are strengthened when two events occur together on a frequent basis. It is as a result of people using their cognition to retrieve, construct and associate information that people can make judgements as to whether events are likely to occur or the number of times classes could occur or the frequency of co-occurrences.

For example, if a manager needed to assess the performance of a member of his team over the past year he will recall from memory all the team members that have consistently delivered over the last few months of the year. Here the manager employs the availability heuristic as he estimates the frequency of number of times a member has delivered by the ease at which he can recall an event where the team member has performed well (Bazerman & Moore, 2009). So the availability heuristic can be said to be used in making a judgement more credible based on the vividness or ease of imagining an event even though the probability of the event occurring might be different. Our reliance on availability though leads us to predictable biases in our judgements.

EASE OF RECALL BIAS

The ease of recall bias is based around the factors of vividness and recency to events that have taken place in our lives where people tend to overweigh

the importance of recent events and their vividness in our memory. Tversky and Kahneman (1974) conducted a study where individuals were read a list of names of celebrities consisting of both sexes. Some names on the list were famous (Richard Nixon, Elizabeth Taylor) and others less famous (William Fulbright, Lana Turner). Lists containing different types of people where presented to two groups. The one group was presented with a list that contained more famous female names than men's names but overall had less females than men on the list. The other group was presented with a list of more famous men and less famous women's names but had more names of women listed. One group was asked to write down as many names as they could recall from the list whilst the other was asked to judge if the list contained more names of men or women. In both groups individuals judged incorrectly and selected the gender where the famous names occurred the lesser number of times in the list. Individuals in this study paid attention to the more vivid famous names which resulted in inaccurate judgments being made.

The ease of recall bias thus highlights to us that the more vivid or recent an experience we had of something we are more likely to place a much larger emphasis on these scenarios. By doing so we consider these scenarios to play a much larger part in our decision making processes when evaluating an answer.

RETRIEVABILITY BIAS

The retrievability bias presents itself in instances where we are able to retrieve certain pieces of information much quicker than others as a result of

sharing something common. As some things are more easily retrieved they manifest themselves more in our judgements than we might think. A study conducted by Tversky and Kahneman (1983) showed the impact of retrievability bias when they asked students to list seven letter words in 60 seconds ending with “ ing” or those that had the letter “ n” as the 6th character. The students concluded that words ending with “ ing” where more common than those that had “ n” as the 6th letter even though the latter was present in all the words ending with “ ing”. The conclusion which was reached by this study suggested that words containing the “ ing” suffix where more easily retrievable compared to those where the search for the 6th character was more difficult to create words. This study showed that we are able to access information easily when they are well structured and thus allows us to use the easily retrievable information in the judgements we make.

The retrievability biases can lead to discrimination in organisations where people being hired from within a person’s social network where there is a commonality of background, education, culture, experience and even social status. The intention here might not be to discriminate but this could lead to discrimination within the organisation of sexism, ageism and racism (Petersen, et al., 2000).

Managers on a daily basis can be affected by these biases (ease of recall and retrievability), which can lead them to making fundamental errors in their managerial decision making process. This was clearly illustrated in the case where a hedge fund was undergoing a transition and recruited a CTO to take

control of its technology team, wherein a new cutting edge technology was to be developed. On arrival the CTO began a restructure of the team and initiated a recruitment drive where he was solely responsible of hiring candidates. During the first phase of the recruitment process the CTO looked at candidates who were already known to him. In this phase he recruited a number of former colleagues. During the second phase of the recruitment process he hired people whom he did not know but were of similar personalities, mind-sets and backgrounds to those of his former colleagues. It could have been his intention to hire likeminded people but the new technology required diverse groups of people to generate out of the box ideas. The CTO though ended up with a team where individuals were very similar in behaviour and their ways of thinking. This impacted the implementation of the technology as there were not enough people with varied backgrounds in the team to understand and make use of the appropriate tools to achieve the best possible result. If the CTO was able to recognise his biases as a result of the availability heuristic he would have probably been able to recruit a more balanced team. Further to this with too many people of the same background and ideology the cultural balance and diversity within the organisation was affected which led to larger systematic failures. Without the intention to discriminate the CTO created a problem which he could have avoided if he was more aware of his biases.

REPRESENTATIVENESS HEURISTIC DRIVEN BIASES

When dealing with making decisions we are sometimes faced with problems where we need to compare items and deduce if they contain similarities

found in another group based on previously formed stereotypes. To be able to do this we need to relate how the probability of our items are related to the items we are comparing (Tversky & Kahneman, 1974). “ Representativeness is an assessment of the degree of correspondence between a sample and a population, an instance and a category, an act and an actor or, more generally, between an outcome and a model” (Tversky & Kahneman, 1983). Representativeness heuristics helps us to evaluate the degree to which items correspond to one another.

For example, an investment banker might be considering an option to buy a newly listed stock. He first considers whether he has been successful or unsuccessful with other stocks in the same sector that are familiar to him. In this manner he will determine whether it is a stock he will want to buy into or not. This heuristic can also be helpful for managers. For instance when a manager is building a team for a project that requires a high degree of accuracy with numbers he may associate individuals that are good at mathematics and finance as these types of people are known to work with numbers which requires some level of accuracy in them.

Representativeness though can also work against us by allowing us to unconsciously discriminate according to race, gender or culture which we would not normally do. For example if a manager thinks that the best traders are generally white men, then he unconsciously discriminates against women and other races. With this we see that people seem to rely on representativeness heuristics even though they may not have the correct information at hand which leads them to make incorrect judgements.

INSENSITIVITY TO SAMPLE SIZE

This type of bias suggests that we tend to make decisions by using statistical information that we think is correct but generally consists of too small a sample size. For instance a fair amount of people are afraid to fly in airplanes because most think that it will be involved in a crash but these same people will more than likely travel in a car without any concern. Statistically though this assumption made by people is incorrect as the odds of a person dying in their lifetime in a car in the UK is 1 in 240 but is even less likely in an airplane at 1 in 55078 (Bandolier, 2007).

This shows us that our decisions are skewed as result of not considering all the factual statistical information available. If those afraid of plane crashes had considered the information as a whole and looked at the various modes of transportation and in each case evaluated the risk that each mode of transport posed to them their decisions will most probably change if it was the statistic that they had based their decisions on.

MISCONCEPTION OF CHANCE

Occasionally when making decisions we consider normal events that happen consistently, to be rare events. Bazerman and Moore (2009) illustrate this in an example where a poker player has been holding bad cards for ten hands. The player believed that he was due a good hand sooner as he had a number of bad hands previously. The fact that the poker player believed this is contrary to what the expected result should be. He had a fifty percent chance of getting a good hand, which was exactly the same chance as he did in any other previous hand. The misconception that the gambler had was

that he believed there was a balance and that the balance would be restored. Tversky and Kahneman (1974) showed though that it is not the deviations in the balance that is corrected but it is the deviations that are diluted as the number of events increase.

Decisions made due to the misconception bias are as a result of people having hope rather than acting on the true facts available to them. Hope cannot be used in business as any viable strategy (Barrows, et al., 2010). In the aforementioned example if the player had considered each and every hand on an individual basis and evaluated the outcome of each hand he would have been able to overcome this bias. With that in mind it would also have been easier for him to account for his losses and take the corrective action needed. Likewise it is the same for managers. They need to be aware of this misconception of there being a balance and ensure that their decisions are based on the true fact of each piece of evidence at their disposal when making their decisions. A manager involved in an investment trading environment who succumbs to this bias could find himself facing serious losses falling into the same trap as the poker player above.

REGRESSION BIAS

The regression bias is where we make the mistake of considering a rare event as a normal one without considering the possibility that it might be an exceptional case that the event has occurred. This is the exact opposite of the misconception bias and thus regresses to the mean (Barrows, et al., 2010).

Consider an example of a fund manager and his team who deliver a stellar performance in their fund over the last financial year. The investors in the fund might look at the performance and think that this sort of performance is expected to continue into the next financial year. More than likely though this could have been a one off event and the fund manager will most probably be unable to continue to consistently beat expectations year on year thus regressing to the mean. The outperformance of the fund in the one year would have been as a result of an anomaly in market conditions. If the fund manager though fails to acknowledge that this was an exceptional year and a one off then he will set false expectations for the future and make incorrect assumptions about the funds future performance. In the likelihood that the fund is unable to produce the results the following year as it regresses to the mean the fund manager may begin to make excuses to the investors for not meeting expectations. It is of the utmost importance for managers to be aware and understand the situations wherein such rare events might occur to overcome the misinterpretation of results as a result of this bias.

On a daily basis managers are faced with decisions where they are required to call upon representativeness heuristics to assist them in their decision making process. Managers though need to be aware of the biases that are associated with representative heuristics to be able to make the most effective decisions. The biases of insensitivity to sample sizes, misconceptions of chance and regression to the mean can serve managers well when used appropriately. However, all too often when managers are

faced with pressure situations and placed under constraints they may rely too heavily on this simplistic type of heuristic. This in turn could lead to systematic irrationalities in their decision making processes (Bazerman & Moore, 2009).

ANCHORING AND ADJUSTMENT

The anchoring heuristic is when people start to base their decisions around a single point of information using past experiences or information. They then make adjustments to this initial value, the “ anchor”, by using additional information to reach a final answer. According to Tversky and Kahneman (1974) anchoring and adjustment is “ starting from an initial value that is adjusted to yield a final answer. The initial value, or starting point, may be suggested by the formulation of the problem or it may be the result of a partial computation. In either case, adjustments are typically insufficient. That is different starting points yield different estimates, which are biased toward the initial values”.

In a demonstration to highlight the effects of anchoring Tversky and Kahneman (1974) asked participants to estimate the percentage of African countries in the United Nations. In the presence of each participant a random number was obtained by spinning a wheel (consisted of numbers between 0 and 100) which the participants used as a starting point. Participants where then asked to state whether the actual quantity was higher or lower than the random number and then to give their estimate. The random number had a marked effect on the participants’ estimates. For example in the case where participants estimated the percentage of African countries in the United

Nations. The participants that started with the random number ten estimated 25 percent and those that started with the random number sixty five estimated 45 percent. This demonstration illustrates clearly that even though participants were given a random number to start with they still gravitated around that number to find their best estimate.

People tend to anchor around a figure even though it might not relate to the circumstance. In this case an arbitrary one is made up. Companies use anchoring in their marketing and pricing strategies to attract consumers. Consumers anchor against something that is familiar to them when making decisions. If there is none then they pick an arbitrary one. Once an anchor is established they use this as the base for all future decisions. For example, Apple released the first iPhone in 2007. When the phone was released it was priced at $599. In the first few months sales where slow. This was because initially most people had nothing to compare it to as it was first to market. A few months later the price was dropped by $200 dollars. This priced drop sparked a large amount of sales. Once the priced dropped people had an anchor ($599) around which to estimate whether the new price ($399) was of value or not. By using the anchor people where able to make comparisons and purchase the phone (Dalrymple, 2007).

Managers need to be aware of the effects of anchoring and adjustment as they can utilise it to their advantage in marketing campaigns and influencing the outcome of situations as demonstrated by the previous example. They also need to be aware not to be biased by the effect as it could lead them to gross misjudgements in their decision making process. A manager who is in

charge of procurement for example will need to be aware of not falling into the same trap as consumers did above.

OVERCONFIDENCE

For people to succeed in a range of activities such as their job performance, sports and in business they must be confident in their abilities to achieve success. Overconfidence though is born from an individual who rates their confidence in decisions subjectively rather than evaluating them from a more objective and balanced perspective. Overconfidence thus leads to unrealistic expectations and becomes a barrier to effective decision making (Bazerman & Moore, 2009).

In a study conducted by Odean (1998), he found that overconfident traders traded more frequently that those less confident. These traders also believed they were better than others in choosing stocks as well when the ideal time was to enter or exit a trade. Further to this he found that those traders who traded more frequently also produced lower returns than the market. From this example we can see that being overconfident in your decision making does not allow one to be able to assess a situation objectively and affects the end result negatively. Managers need to be aware of this and be able to objectively assess their decisions by questioning their decisions and looking at alternative perspectives to ensure they achieve the most optimal results (Bazerman & Moore, 2009).

CHALLENGE THE BIASES

For managers to be able to effectively use the heuristics and biases in their favour or to avoid the pitfalls which these bring into the decision making process they need to arm themselves with methods on how to challenge their decisions.

To accomplish this most managers will follow the simple plan of gathering all the facts and information required for the task at hand. They will review this information to determine whether their source has distorted or masked this information in anyway and then they will use their own experiences, knowledge and reasoning to deduce a final answer. This process though is flawed at every stage as there could be a number of errors made in judgement as a result of biases. To overcome the biases managers require the proper tools to recognise and neutralize them. Using the appropriate tools over a prolonged period will help to reduce the effect of biases on their decisions (Kahneman, et al., 2011).

In the article " Before You Make That Big Decision…", Kahneman, et al. (2011) go on to list a set of 12 steps which managers can utilise to test that the decisions they make are well informed ones. Some of those steps include checking for the availability biases, anchoring biases and the overconfidence biases which have been discussed earlier. The twelve steps include questions that a manager could pose to himself to ensure that he is effectively looking at the information at hand from an unbiased view to make the most informed strategic decisions. The challenge though to implement

these types of quality controls in the decision making process is to build awareness amongst managers that even the best of them are fallible.

CONCLUSION

Throughout this paper we've discussed a number of heuristics and biases ranging from the ease of recall and retrievability biases which occur as a result of the availability heuristic; representativeness heuristic biases such as regression to the mean and misconception of chance; overconfidence and anchoring biases, all of which influence the decisions managers make. For managers to be able to benefit from these biases and heuristics it is essential for them to firstly be aware of the existence of these cognitive biases and heuristics. Awareness of these will allow managers to be able to focus their attention onto biases when undertaking decisions. As has been shown throughout the paper evaluating all the facts at hand and ensuring that the sources of information have not been distorted, managers will be able to produce results that are unbiased and decisions which are correctly reflective of their situation. Distortion of the facts through various sources as well through their interpretation, as a result of biases and heuristics, brings with it the systematic failures in the managerial decision making process.

For those managers that are aware of the biases, appropriate tools and mechanisms need to be used to effectively root out these biases from their decision making processes. To accomplish this they would need to challenge their biases and include tools like the one suggested in this paper. Continuous use of such tools will lead to a more disciplined process in arriving at decisions with reduced bias and in the longer term removing

biases. These will help managers make better decisions. A first step in a process of how heuristics and biases can help managers make better decisions was demonstrated in this paper. To truly gain the benefit of this in business though organisations need to take the next step and play a more active role in changing their culture by being more aware of these heuristics and biases at all management levels to make the most effective decisions.