

Analysis of Individual Behaviour based on Status Quo Bias

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Abstract: Status quo bias describes a behavioural tendency which occurs disproportionately often when individuals make their decisions, individuals under this influence will prefer to select a previously chosen alternative or an option which maintains the status quo. This paper discusses the mechanism and the factors influencing the status quo bias. We found that the mechanism could possibly be interpreted by the three psychological principles: loss aversion, regret theory, and anchoring effect. Then this paper discusses factors that may influence the status quo bias which include emotions and satisfaction of the decision-maker as well as the number of alternatives. The results show that the status quo bias will occur only when the individual is satisfied with the current situation, and they will tend to choose the status quo option when facing more choices. This research could be used to better analyse individuals and organisations when they make decisions in wider areas.

Keywords: decision making, status quo bias, satisfaction

1 Introduction

Individuals usually have a strong propensity to maintain the status quo because they frequently favour the benefits of the present situation over its drawbacks [1]. In 1988, Samuelson and Zeckhauser first put forward the concept of status quo bias through a series of experiments, that is, most real decisions have a status quo alternative—doing nothing or maintaining one's current or previous decision [2]. For instance, in the studies of employee health plan choices at Harvard University, they found that when new health care plan options were added, older workers maintained their previous decisions about health care plan choices. Thus, it can be seen that the status quo bias is a common decision bias in individuals' decisions making. But how could the status quo bias influence our life? Since causes and explanations of the status quo bias have always caused heated arguments, this article will simply introduce the bias in 4 sections, including the literature review, the possible mechanisms of the status quo bias with applications, and the factors that could influence the extent of the bias with examined experiments, and finally the future outlooks and conclusion.

2 Literature Review

Samuelson and Zeckhauser first proposed the concept of status quo bias and confirmed the existence of this decision bias in laboratory experiments and field experiments [2]. Through a series of experiments, they found out that individuals disproportionately stick to the status quo, and the status quo bias still exists in decision-making situations where there are no transition costs and

uncertainties. In some situations, even though the environment and conditions have changed, and the status quo option is no longer the dominant option, the decision maker may still ignore the dominant option and insist on the status quo option. Therefore, the bias of being content with the status quo may cause individuals to miss the opportunity when making decisions and fail to obtain the maximum decision utility.

The status quo inertia could therefore be applied in different fields, ranging from marketing techniques to industrial organisation, to the advance in science. In terms of management, due to the deviation from the status quo, managers fail to identify the advantages and disadvantages of the reform before it happens, which could lead to the failure of implementing more efficient policies [3]. In consumption decisions, consumers tend to stick to the brand they have chosen before because they prefer the status quo to other options [4], showing certain brand loyalty. In addition, studies have found that although employees know that vocational training and professional change will change their career prospects, they still tend to maintain their previous career decisions [5]. It can be seen that the status quo bias is a common decision bias in individual decision-making. However, the interpretation of the status quo bias could be explained in discrete ways, and the factors that influence the bias are hardly discussed in previous research. Thus, this article would simply introduce the mechanism of this inertia with experiments and discuss the possible factors with real cases.

3 Methodology: Interpretation and Mechanism

According to Kahneman and Thaler, a wine-loving economist would neither sell the wine which was valued at \$200 after it had appreciated from \$10 nor buy one [1]. Thaler [6] called this pattern the endowment effect, and Kahneman and Tversky [7] call this loss aversion, while this example also illustrates what Samuelson and Zeckhauser [2] call a status quo bias. Based on these, in this section, we are going to use diagrams and applications of different psychological theories including loss aversion, regret theory, and anchoring effect to explain how status quo bias is formed during decision-making.

3.1 Loss Aversion

Kahneman and Tversky [7] proposed that individuals would give more weight to losses than to the same amount of gains in decision-making, and they named this phenomenon loss aversion. For example, half of the students of a class in the university [8] were each given a coffee mug emblazoned with the school badge. Later, the students were asked if they would like to sell/buy the cup at a certain price and then make sales with each other. As a result, the owner was willing to sell the cup for about twice as much as the student who wanted to buy it was willing to pay. The experiment was carried out dozens of times and thousands of cups were used, but the result was almost always the same. This experiment suggests that people tend to be more upset when they have to give it up than they are happy when they get it. To illustrate this phenomenon, Kahneman and Tversky plotted a value function curve with

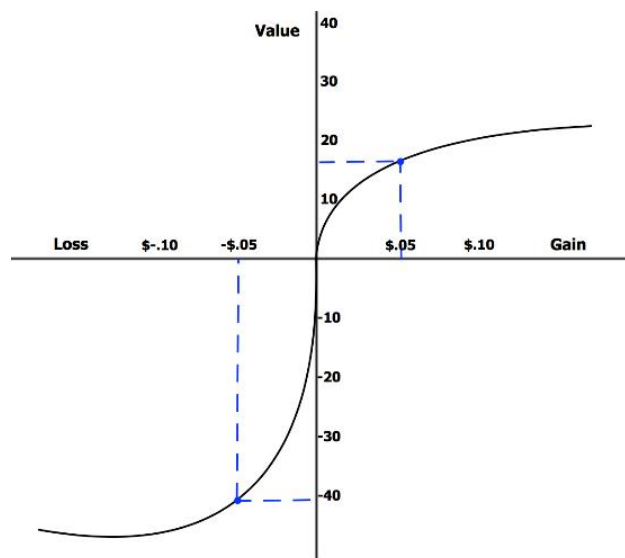


Figure 1 Gain and Loss in Loss Aversion

bumps in the gains and recesses in the losses. A loss of \$0.05 is viewed as a significantly greater loss than a corresponding gain of \$0.05, as can be seen in Figure 1, which contrasts the strict numerical value of gain or loss with the perceived value of gain or loss. This suggests that the ratio of modest financial benefits to losses is roughly 2:1 [9]. As a result, status quo bias may be an inevitable effect of this asymmetry, where the drawbacks of change are weighed more heavily than their benefits.

3.2 Regret Theory

According to regret theory, people anticipate remorse if they make the wrong option and take this into account while making decisions. Fear of regret can be a powerful motivator or a powerful deterrent to action, depending on the situation [10]. To put it another way, regret brought on by action is greater than regret brought on by inaction. Individuals frequently decide to do nothing or stick with earlier decisions in order to avoid such anticipated unpleasant emotional experiences.

3.3 Anchoring Effect

Another cognitive bias that contributes to the status quo bias is the anchoring effect. This effect can be easily observed in some decision problems when choosing the best value for one or more continuous variables. The decision strategy is usually adopted by the decision maker in this decision-making by setting an initial value for reference and then choosing the final decision value according to the changing conditions. According to Samuelson, individuals could only partially analyse the options available to them. A comprehensive analysis of the advantages and disadvantages of a certain option is very time-consuming, so it is difficult for individuals to make a comprehensive analysis of all options when making decisions. Assuming that the individual has fully understood the choices he has made, then to make a reasonable decision is to only compare some aspects of the choices he has made with other competitive alternatives and ignores others. In this way, the status quo alternative has an advantage in the decision-making process through this asymmetric comparison.

4 Factors Influencing the Status Quo Bias

Status quo bias could be influenced by several factors as we may discuss in the following context. We would firstly introduce an application and evaluate this case by doing an examined experiment and then discuss the possible factors that could influence the status quo bias.

In 1985, the Coca-Cola company launched a "New Coke", a new formula of the original coke tastes [11]. The results of the blind taste tests were positive, as many consumers preferred New Coke to Classic Coke, so the full force of Coca-Cola's marketing was put into it. However, when consumers were asked to choose a coke to buy, they chose Classic Coke. Eventually, New Coke was discontinued in 1992. For a majority of consumers, they prefer goods that are familiar, tried, tested, and can be considered normal. When consumers need to buy coke, they tend not to risk regret because they might not like the new flavour. At the same time, they have become accustomed to the taste of Classic Coke, so when consumers have to choose between conflicting options, people default to classic in this case.

To better understand this experiment, an experiment was conducted using a questionnaire consisting of a series of decision questions. Each question begins with a brief description of a situation, and the individuals facing this situation. The respondents would play the role of the decision maker and are asked to indicate their preferred choice between the alternatives. The questionnaire goes

Suppose you are a loyal customer of Coke Classic (mentioned in sector 3), would you try its new flavour (or "New Coke") with the same volume and price? Your choices are:

- 1) Yes
- 2) No

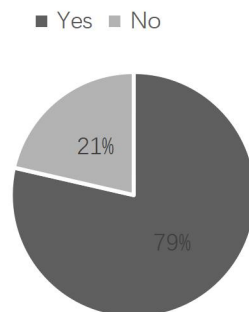


Figure 2 Results of the Experiment

Surprisingly, 457 people chose the option "Yes" (nearly 79%), and only 125 people chose "No" (approximately 21%), which was inconsistent with the result by Coca-Cola in 1985. The assumption of why this happened may be:

People are currently inattentive with the default so they would desire to try some new flavours;
There may be limited complexity of choices;

The transition cost is very low (one coke sells for approximately 1~3 dollars), thus even if they found out that the new flavour was unfavourable, they would not feel regret. Therefore, satisfaction, the number of alternatives, and the decision-emotion of makers may all have an impact on status quo bias.

4.1 Emotion and Satisfaction

Studies have found that when consumers are in a decision situation with emotional tradeoff difficulties, they tend to maintain their previous decisions in order to minimise the negative emotions brought about by the decision, where the status quo bias could be illustrated [12]. In 2009, Sun and Gu designed an experiment to find out how satisfaction with the status quo may affect the status quo bias [13-14]. The experiment described a situation where the respondents had to choose the best option among the 4 to bid for a contract valued at 1 million yuan while given a default choice. The respondents were asked to state whether they were satisfied with the default (status quo) before choosing the best option. The experimental results show that the respondents prefer the status quo option when they are satisfied with the status quo instead of maintaining the status quo bias in all cases. When the person is dissatisfied with the status quo, the relative advantage brought by the status quo position will no longer exist, and the status quo bias is only a decision bias that will occur when the individual is satisfied with the current situation.

4.2 The Number of Alternatives

According to research on the American mutual fund market, when there are more than 100 possibilities, the status quo bias is three times as strong as when there are just 25 options. This means that for fund investors with more options, the status quo bias is more serious [14-15]. Consequently, it can be deduced that the extent of status quo bias increases with the number of alternatives. In 1988, Samuelson and Zeckhauser also proved that people tend to choose a status quo option when facing 4 choices than facing 2 choices.

5 Limitations and Future Outlooks

5.1 Limitations of the Status Quo Bias

According to the source of the status quo, the status quo bias can be divided into two categories: The exogenously determined status quo bias and the endogenously determined status quo bias. The manifestation of exogenously determined status quo bias is mainly about maintaining the current decision, while the manifestation of endogenously determined status quo bias is mainly about maintaining the past choice. For the endogenously determined status quo bias, the results of sticking to past decisions are usually deterministic, while individuals prefer the more deterministic results when making decisions [7]. Therefore, the desire for certainty may be the cause of the endogenously determined status quo bias. However, for the exogenously determined status quo bias, the decision result of maintaining the status quo may not be certain. In this case, certainty seeking may not be the reason for the deviation of settling for the status quo. Therefore, the study of the causes of different types of status quo bias may receive different results.

5.2 Future Outlooks

Status quo bias is critical in analysing typical decision-making processes and is essential in fields as diverse as public policy, management, and sales. To further explore the connection between status quo bias and other choice phenomena, delve into its historical foundations, and finally broaden its applicable values, more in-depth research is required. Currently, progress has been achieved in the field of applied research on status quo bias. On the one hand, studies have shown that the status quo inertia has a wide impact on investment, management, sales, healthcare and other fields, and some of the applied research on the status quo bias in these areas is providing substantive strategies for decision-makers. On the other hand, the status quo could be a reference for individuals and

organisations to make optimal choices under various constraints to maximise the utility of individuals and governments. Therefore, the status quo bias may exist in a wider range of areas in the future.

6 Conclusion

This article did a holistic review of the status quo bias by examining the past experiments and includes 2 diagrams. Then it discusses the interpretation of the status quo bias, by analysing the mechanism of the loss aversion which describes individuals would give more weight to losses than to the same amount of gains; the effect of the regret theory which describes individuals usually worry about regret when making decisions so they tend to choose the status quo option; the anchoring effect which describes individuals tend to depend more heavily to the initial information. Finally, we discussed the factors that may influence the status quo bias, and we found out that the more people are satisfied with the status quo, the more they would stick to their current option. Also, people tend to choose the status quo option when facing more choices. To sum up, the research on the status quo bias has important theoretical significance and application value.

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