

Applications and Implications of Status Quo Bias

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Abstract. Status quo bias (SQB) refers to the inclination of individuals to prefer and maintain the current state in decision-making. This study explores the profound impact of SQB on decision-making in the fields of medicine, technology, and business. Through an extensive review of existing literature, we examine how SQB significantly influences the decision-making process and its subsequent outcomes, hampering the progress of innovation and hindering the adoption of optimal choices. Rooted in factors such as familiarity, comfort, and resistance to change, SQB acts as a formidable barrier to embracing novel alternatives. Additionally, limited understanding and low market penetration further reinforce this cognitive bias. By gaining a comprehensive understanding of the nature and implications of SQB, policymakers and decision-makers can access valuable insights to guide future planning and strategies effectively, mitigating the adverse effects of this cognitive bias. The study aims to encourage progress in medicine, technology, and business domains by promoting the exploration and adoption of new products and practices. By acknowledging and addressing SQB, stakeholders can foster a culture of adaptability and open-mindedness, ultimately driving positive advancements in their respective fields.

Keywords: Status quo bias; inertia; cognitive bias.

1. Introduction

Status quo bias (SQB) refers to the tendency of individuals to favour maintaining the current state and resist making changes or taking new actions when confronted with alternative choices. This bias arises from the belief that sticking with the status quo offers security and familiarity while deviating from the established behaviour introduces uncertainty and potential risks. Although SQB can provide stability, it can hinder innovation and impede progress. It is important to note that SQB operates subconsciously and can influence various aspects of decision-making. This paper provides an overview of SQB, exploring its causes and effects. Furthermore, it discusses three specific applications of SQB in the medical field, branding & consumer loyalty and the electricity market. By examining these applications, the present study aims to shed light on the practical implications of SQB and highlight potential strategies to mitigate its influence.

2. Applications

2.1. Medical Applications of Status Quo Bias

Status quo bias is pervasive in the medical field, leading to patients choosing treatments that go against their physicians' recommendations and contributing to the problem of medical noncompliance—a significant public health concern. However, it is crucial to recognize that SQB can also affect the decision-making process of healthcare professionals themselves, presenting challenges within the industry.

One prior study focuses on the presence of SQB in physicians' decision-making processes. Additionally, it investigates whether physicians exhibit an enhanced effect of SQB in the medical domain relative to the non-medical field. The study was conducted in Australia in 2019 and involved the participation of 1,035 Australian individuals. These participants were chosen from a medical and general consumer panel maintained by a marketing research company, and they received monetary remuneration as an added incentive. A test was conducted using a completed questionnaire format, utilizing a mixed-subject design that varied based on the status-quo options, scenarios, and samples.

The questionnaire utilized in the study consists of three distinct scenarios: one related to medical decisions and the others are about investment and academic choices. The study's results confirmed that the presence of SQB increases the likelihood of decision bias. This finding implies that patients may receive suboptimal treatments, leading to potentially higher costs.

In the medical field, experts often rely on the experiences of their predecessors when making decisions, which can contribute to the presence of SQB. These experiences serve as a reference point and provide physicians with a sense of confidence as they understand the risks and outcomes associated with the decisions. Consequently, physicians may be inclined to choose the SQB option to err on the side of caution.

However, in non-medical fields, the influence of SQB is generally diminished. The article proposes three potential reasons contributing to amplifying SQB among physicians in medical scenarios. The first reason is loss aversion, which stems from the fear of potential losses associated with unfamiliar decisions. This could include concerns about professional dissatisfaction among colleagues or retaliation from patients' families. The second reason is regret aversion, which suggests that maintaining the status quo minimizes the possibility of experiencing regret. By sticking with the general approach, physicians can avoid the uncertainty and potential adverse outcomes that come with making a new choice. The final reason is omission bias, which refers to the tendency to prefer inaction, even if it may cause harm, rather than taking actions that could potentially harm others. Physicians often rely on the experiences of their predecessors, believing that they have thoroughly assessed their patients and placing significant trust in their decisions, assuming it to be the best option for the patient [1].

One study examines the SQB from patients' perspective. The result provide support for their argument through three electroshock studies.

Participants were randomly assigned to either a forced-choice group or a proactive-choice group, and the experiment consisted of giving participants a choice between three different premise situations. The experiment confirms that individuals tend to favour the SQB option, even when it is suboptimal compared to other alternatives. However, when individuals are compelled to choose, a significant majority still tend to select the more favourable option independently. This observation aligns with the omission bias discussed in the previous article, indicating a preference for inaction over taking action.

Regarding the practical implications of this study, the results suggest that in decision-making contexts, particularly in addressing medical noncompliance, it is crucial to provide adequate support to overcome patient inertia. Encouraging patients to try the recommended action at least once, thereby breaking their psychological inertia, is more effective than relying solely on default choices or extensive awareness campaigns. This finding holds significant implications for promoting long-term medical compliance behaviours [2].

The other two studies highlight the influence of SQB in medicine on individuals' decision-making regarding healthcare choices. The articles' subjects revolve around health clouds and disability determination systems, two emerging computing technologies. These innovative information systems have substantial potential, capable of providing a shared pool of configurable computing resources on demand, thereby effectively reducing healthcare technology costs [3,4].

Despite its practicality, healthcare professionals' biased perceptions of new information systems have resisted adoption. The research has indicated that healthcare professionals are reluctant to use them due to regret avoidance, inertia, switching costs, and perceived threats. This further reinforces that SQB significantly impacts decision-making within the medical field.

2.2. Technological Applications of Status Quo Bias

As technology advances and shapes people's lives, understanding the influence of status quo bias becomes increasingly crucial. This bias manifests in various ways, such as individuals defaulting to standard technologies and resisting adopting new ones, even when those new technologies offer

significant advantages. Recognizing and addressing SQB is essential for unleashing the full potential of technology and driving positive transformations in our digital society.

The emergence of cloud computing has revolutionized information hosting, allowing software vendors to deliver multi-tenant-oriented applications within a shared IT infrastructure. Cloud technology has sparked interest across various industries and profoundly impacted the contemporary business environment. However, despite its powerful features, some firms remain hesitant to fully embrace cloud systems due to concerns related to security, data ownership, and other factors.

One prior research utilizes Partial Least Squares (PLS) as a data analysis method to investigate the decision-making process behind organizations' adoption of cloud ERP (Enterprise Resource Planning) systems. The research accomplishes its objectives through two key components: measurement modelling and structural modelling. The internal consistency of each concept is evaluated using the measurement model's composite reliability (CR) and Cronbach's alpha. To guarantee the validity and reliability of the individual constructs, the convergent validity of the measuring items is examined by factor loading and average variance extraction (AVE). On the other hand, structural modelling tests the relationships between the constructs and validates the research hypotheses. Path coefficients are calculated to determine the significance of the research hypotheses and understand the direct connection between the constructs. The statistical significance of the research hypotheses is further verified using Bootstrap resampling.

The findings reveal that organizations tend to adopt cloud ERP systems cautiously due to SQB. The existing state of the ERP system acts as a barrier against the adoption of cloud ERP, while perceived value and perceived risk serve as influential mediators in the adoption decision. Moreover, internal and external structural inertia play a significant role in determining whether an organization transforms. The study's results provide valuable insights and implications for vendors and potential adopters.

However, certain limitations are present in the study, such as the sample size and data collection method. Future research could replicate and validate the model across various industries and application types to enhance data credibility using multiple data collection methods. By addressing these limitations, researchers can strengthen the understanding of SQB's impact on cloud computing adoption and its implications for organizations [5].

The Architecture, Engineering, and Construction (AEC) industry is a significant sector globally, consuming substantial resources and energy. This industry is experiencing rapid changes in IT technology driven by digital transformation. Building Information Modeling (BIM) and other technologies aim to facilitate this transformation and streamline workflows. To understand user resistance to adopting BIM, researchers conducted a survey using the status quo bias (SQB) perspective. The study involved expert interviews for questionnaire design and then distributed the questionnaire to 155 architects in Germany. The collected data were analyzed using multiple linear regression to identify the most influential factors among the dimensions in the SQB framework.

The study's conclusions showed that uncertainty costs in rational decision-making and sunk costs in psychological commitment were the main factors influencing architects' resistance to BIM. Uncertainty costs refer to the uncertainty and expenses architects face when making decisions in complex situations, which impacts their acceptance of BIM. On the other hand, sunk costs describe architects' reluctance to abandon previous systems due to their prior investments, such as time and effort, leading to resistance towards adopting new technologies. Additionally, the study highlighted that organizational support and colleague input positively reduce user resistance. Colleagues' opinions and support in decision-making play a significant role, and positive coworker relationships can help mitigate resistance to new technologies. Moreover, providing more information, sharing experiences about BIM, and easing the learning process of the latest technology can reduce the uncertainty costs for users and subsequently lower resistance.

However, the research direction of the article has certain limitations. The sample selection was limited to architects in Germany, which restricts the generalization of the findings to the broader construction industry. Future research could address this limitation by including a more

comprehensive range of samples and exploring additional factors and characteristics that may impact user resistance [6].

In conclusion, technology companies must take user resistance into account while creating new tools or improving current systems. To avoid or reduce opposition, businesses should concentrate on implementing new technology seamlessly. Offering high-quality service, comprehensive support and involving users early in the adoption process can play a vital role in mitigating resistance. Understanding and addressing user concerns effectively will ultimately lead to successful technology adoption among users.

During the COVID-19 pandemic, mobile payment usage soared. However, this trend might shift after the pandemic, impacting the economy. One related article aims to examine users' intentions to continue using mobile payments through a comprehensive framework.

The SQBP (Status Quo Bias and Persistence) offers a unique perspective on user resistance. In the mobile payment environment, the decision to continue using new technology may be influenced by user resistance, such as inertia, towards existing technology. Therefore, considering SQBP and inertia is crucial in studying mobile payment continuation intention, as it helps understand the dynamics and complexity of user decision-making [7].

2.3. Business Applications of Status Quo Bias

In business, status quo bias can impact decision-making, organizational behaviour, and customer choices. Understanding the impact of SQB is crucial for companies to adapt, innovate, and stay competitive. By understanding and addressing this bias, organizations can make more informed decisions and foster a culture of innovation and growth.

Consumer loyalty is a key factor in determining a brand's long-term viability and longevity. The presence of SQB significantly influences consumer loyalty to a particular brand. Customers are more likely to continue with their present brand preference as a result of this prejudice than to consider other brands. The SQB acts as a barrier to brand switching and reinforces consumer loyalty to the familiar brand. As a result, brands can leverage SQB to build and sustain a loyal customer base, as it encourages customers to remain loyal to their preferred brand over time. One study examines the relationship between consumer loyalty and two key factors: deliberate inertia and cognitive lock-in. The authors choose smartphones as the subject of their study to explore how consumers perceive brand relationships in terms of integrity and SQB.

Information and communication devices like smartphones are equipped with advanced technologies that enable users to share information and knowledge in real-time, overcoming time and space constraints. Customers need to put in time and effort to learn how to achieve proficiency in using innovative products. Once they acquire the necessary knowledge and skills, they can fully utilize the personalized services offered by these products. As a result, consumers may become cognitively locked into specific products, as their acquired skills are specific to operating that particular brand.

The study conducted in the article utilized a comprehensive questionnaire to gather data, resulting in a total of 756 responses, comprising 571 physical questionnaires and 185 online responses. The questionnaire encompassed various aspects, including the duration of smartphone usage, preferred brand selection, as well as basic participant information such as gender, age, occupation, and other observable variables. The data collection and analysis processes were conducted meticulously and rigorously. Upon analyzing the data, the study concluded that conscious inertia is the most significant factor influencing consumer brand loyalty. In this situation, customers actively look for justifications to oppose the marketing techniques used by competing firms and voluntarily decide against exploring other possibilities. Additionally, cognitive lock-in has a significant impact on consumers' brand loyalty. Consumers spend time and effort learning the skills required to use the products connected with the brand, which leads to the development of this cognitive lock-in. The psychological propensity for deliberate inertia based on reason and emotional attachment to the brand's products is increased by this lock-in. Lastly, due to the established trust in the brand, this psychological tendency

extends to other products within the brand's portfolio, directly influencing consumers' inclination to choose other products offered by the brand [8].

Since the 1990s, electricity consumers in the market have displayed notable similarities in their brand preferences. One study conducted an economic experiment to explore the underlying reasons behind this phenomenon. Three hundred participants were randomly assigned to the control or experimental group and exposed to four treatments. Across 15 decision scenarios, participants were tasked with selecting one of several electricity contracts available for each design. The differentiating factor between the control and experimental groups was the presence of a default option.

This study utilizes the Choice-Based Conjoint Analysis (CBCA) to gather consumer preferences and investigate the presence of Status Quo Bias (SQB) in repeated decision situations. The meticulous data analysis demonstrates that participants' choices are indeed biased when selecting electricity contracts. However, the findings from the experiment differ somewhat from the actual reality. Despite the demand for renewable or local electricity, this desire is not effectively reflected in individuals' switching behaviour. To address this dilemma, two potential solutions emerge. One approach involves relying on the market as a natural regulator. At the same time, the other entails utilizing the state as an institutional regulator or employing normative decision-making processes that prioritize the common good. In light of the study's findings, it becomes evident that consumers tend to stick with their current choices rather than embrace change. Based on the findings of this study, it is recommended that power providers, even in the absence of government intervention, take into consideration providing renewable energy contracts as their default or status quo alternative [9].

A Knowledge Management System (KMS) is an information technology system designed to support an organization's knowledge management activities. These systems are widely used by organizations across various sectors and are seen as facilitators of organizational learning. Despite their benefits, some organizations still resist adopting KMS. Knowledge management programs have been shown to fail as a result of opposition to KMS, according to earlier studies.

The SQB perspective is used in a study to investigate the KMS resistance phenomena. The findings show that inertia effectively moderates the effects of SQB whereas loss aversion, switching costs, and social norms favourably influence employees' intentions to oppose KMS adoption.

Understanding the mechanisms and antecedents of KMS resistance is crucial for managers. By doing so, they can implement measures to reduce employees' perceptions of SQB or inertia, effectively minimizing resistance behaviour and increasing the likelihood of successful KMS adoption and utilization [10].

3. Discussion

In conclusion, this study explores the impact of status quo bias on decision-making in various domains. Status quo bias, a prevalent cognitive bias, affects decision-making by favouring the current state over superior alternatives. Patients in the medical field tend to stick with default treatments, leading to medical non-compliance. Recognizing and mitigating SQB is crucial for improving decision-making and promoting positive outcomes. Identifying its characteristics and causes enables marketers to devise strategies that leverage these factors to challenge the status quo. Further research is needed to deepen our understanding and develop effective mitigation strategies, allowing individuals to overcome inertia. Addressing SQB is crucial for reducing stagnation and fostering innovation.

4. Conclusion

In conclusion, this study explores the influence of status quo bias on decision-making in different domains. By recognizing and addressing this cognitive bias, decision-makers can improve outcomes and foster innovation. Further research is needed to develop effective strategies for mitigating status quo bias.

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