



Behavioural Economics Towards Better Decision Making

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Abstract

Often, Individuals try to choose the best feasible option but sometimes, they don't succeed in doing so. They make mistakes. Also, the market exchange makes psychological factors cease to matter but many psychological factors matter even for the markets.

In contrast to the traditional assumption of neoclassical economics that individuals are rational Homo economici, that always seek to maximize their utility and follow their "true" preferences, research in behavioural economics has demonstrated that people's judgments and decisions are often subject to systematic biases and heuristics, and are strongly dependent on the context of the decision.

The insights from behavioural economics (BE) are now a well-established feature in consumer research and policy. Today, in fields from health behaviour to pension saving, from investment decisions to food choice, from sustainable consumption to the design of warning signs, the empirical and theoretical insights of BE have become a cornerstone of understanding consumer behaviour, helping inform policymakers on how to nudge people to make better, smarter, healthier and more sustainable choices (World Bank, 2014). BE is concerned with the question of how people actually behave in decision-making situations and how their choices can be improved so that consumers' welfare is enhanced. For the market, it is always crucial to enhance sales every next quarter, using appropriate strategies.

This paper makes a humble effort to briefly review the transition of the neoclassical (optimising) decision-making towards newer and better insights into behavioural economics and discuss how the latter has influenced and enhanced consumer behaviour and consumer policy on one hand and marketing strategy on the other.

Introduction

What is behavioural economics?

The field of Behavioural Economics has been described by Richard Thaler, one of the founders of Behavioural Economics as, "Economics done with strong injections of good Psychology." It can be regarded as a way to make economics more accurate by incorporating more realistic assumptions about how humans behave.

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Behavioural Economics may be regarded as a method of economic analysis that applies psychological insights into human behaviour to explain and improve the process of economic decision making.

Behavioural economics incorporates the study of psychology into the analysis of the decision-making behind an economic outcome, such as, the factors leading to a consumer buying one product instead of another. Unlike the basic premise of neoclassical economics, in which decision-making is entirely based on optimising and rationality, behavioural economics allows for sub-optimal (irrational or boundedly rational) behaviour and attempts to understand why this may be the case. The concept can be applied in individual situations or more broadly to encompass the wider actions of a society.

Traditional economics believes in maximizing utility (consumer), profits (firms) and welfare (government). But these decisions are taken within some constraints and on the basis of available information and in the available time.

Behavioural Economics is an interdisciplinary science, that uses facts, models, and methods from neighbouring sciences of psychology, sociology, anthropology, and biology to establish descriptively accurate findings about human cognitive ability and social interaction and to explore the implications of these findings for economic behaviour. (Russell Sage Foundation 2016). BE makes use of various methods of field data, field experiments, controlled experiments, computer simulations and even brain scans. In order to analyse the consumer decision making in the context of Behavioural economics it is worthwhile to have a look at the following ideas.

Bounded Rationality:

Decision makers (irrespective of their level of intelligence), have to work under three undesirable constraints.

1. Only limited and often variable information is available regarding possible alternatives and their consequences,
2. Human mind has only limited capacity to evaluate and process the information that is available,
3. Only a limited amount of time is available to make a decision.

Therefore, individuals who intend to make rational choices are bound to make satisfying rather than maximising or optimising choices in complex situations. These limits (bounds) on rationality also make it nearly impossible to draw up contracts that cover every contingency, necessitating reliance on rules of thumb, heuristics.

Herbert Simon described decision making as a search process. Search process goes on until a satisfactory outcome is found which reaches or surpasses the aspiration level on the goal variables and then this alternative is taken. Simon has used the word 'satisficing'.

Full rationality requires the unlimited cognitive capabilities, of a mythical hero who could solve all problems instantly and immediately. But cognitive abilities of average individuals are quite limited. Bounded rationality may refer to rational principles underlying the non-optimising adaptive behaviour of real people. A decision maker who is guided by aspiration adaptation rather than utility maximisation may be perfectly rational in everyday language.

Sometimes it is referred to as optimization under some cognitive bounds. Boundedly rational decision-making involves non optimising procedures. Economic agents operate within the constraints-

1. Have limited capacity to calculate cost & benefit of a decision
2. Are influenced by social network

3. Often reciprocate and not guided by self interest
4. Lack self- control and seek immediate satisfaction
5. Are loss averse
6. Different choices in cold and emotional states
7. Often use simple rules of thumb- **Heuristics**: ‘simple and easy ways of making decisions.’

According to Herbert Simon (1955), complete rationality requires unlimited cognitive capabilities of a mythical hero, who would solve all the problems instantly. But cognitive abilities of average individuals are quite limited. According to H Simon, what we come across is Bounded rationality that may refer to rational principles underlying non-optimising adaptive behaviour of real people. The term ‘bounded rationality’ is used to designate rational choice that takes into account the cognitive limitations of the decision-maker — limitations of both knowledge and computational capacity. Bounded rationality is a central theme in the behavioural approach to economics, which is deeply concerned with the ways in which the actual decision-making process influences the decisions that are reached

In contrast to the traditional assumption of neoclassical economics that individuals are rational Homo-economici that always seek to maximize their utility and follow their “true” preferences, research in behavioural economics has demonstrated that people’s judgments and decisions are often subject to systematic biases and heuristics and are strongly dependent on the context of the decision.

Cognitive Biases:

Cognitive biases, that is, systematic patterns of deviations from norms or rationality in judgement are often observed. For example, consumers’ choices are often influenced by emotional, social and psychological factors. The behaviour of different economic agents is most often not fully rational due to factors such as, they often possess a limited capacity to calculate cost & benefit of a decision, lack self-control and seek immediate satisfaction, display different choices in different emotional states and often use simple rules of thumb – Heuristics, as a simple and easy ways of making decisions.

Broadly speaking, cognitive biases can be split into two types: **information processing** and **emotional biases**. **Information processing biases** are statistical, quantitative errors of judgment that are easy to fix with new information. **Emotional biases** are much harder to change or fix as they are based on attitudes and feelings, consciously and unconsciously. Both types can have implications when assessing new potentially innovative concepts to further iterate and develop because they operate to keep you within your comfort zone of what is already de-risked and known. The underlying belief that you’ll be safer, more secure and more comfortable with less uncertainty and risk dominates decision making. It is important to do the opposite by getting people outside of their day-to-day frames of reference. environment, organizational thinking routines, comfort zones and into the ‘**adjacent possible**’ where the unlocked and unrestricted creative magic really happens.

Nudging:

According to R Thaler and Sunstein, nudging is any aspect of choice architecture that alters people’s behavior in a predictable way without forbidding any options or significantly changing their economic incentives. To be considered as a nudge, the intervention must be easy and cheap to avoid. For example, displaying a fruit at eye level counts as a nudge. banning junk food does not.

Nudges are defined as stimuli that help people achieve what they want and plan to do anyway, i.e., behaviours that are in line with their own benefit. When people lack temporarily or systematically – the psychological (self-regulation) or cognitive (skills and competence) resources needed to realize their goals,

or if they are short of time, energy, or budget to prepare and make extensive decisions, nudges such as simplifications or defaults might increase rather than limit their sense of freedom, accomplishment, and autonomy.

Default Rules, Simplification, uses of social norms, increase in ease and convenience, reminders, are some simple nudges.

In particular, key principles such as status quo bias, the endowment effect, mental accounting and the sunk-cost effect; also other heuristics and biases related to availability, salience, the anchoring effect and simplicity rules; as well as the effect of other supposedly irrelevant factors such as music, temperature, are used for influencing consumers' decisions. These principles not only add significantly to research on consumer behaviour, they also offer readily available practical implications for consumer policy to nudge behaviour in beneficial directions in consumption domains including financial decision making, product choice, healthy eating, and sustainable consumption.

Consumer Behaviour: From Homo-economicus to Homo-consumen:

The insights from behavioural economics (BE) are now a well-established feature in consumer research and policy. Today, in fields from health behaviour to pension saving, from investment decisions to food choice, from sustainable consumption to the design of warning signs, the empirical and theoretical insights of BE have become a cornerstone of understanding consumer behaviour, helping inform policy makers how to nudge people to make better, smarter, healthier, and more sustainable choices. Fundamentally, BE is concerned with the question of how people actually behave in decision-making situations and how their choices can be improved so that consumers' welfare is enhanced. A primary focus is placed on two aspects: first, on what are referred to as **decision heuristics and biases** on the part of consumers, and second, on the **specific effect of the situation or decision context**. (Thaler and Sunstein, 2008).

Engel, Blackwell and Kollat (1968) developed a model on consumer buying decision process which consists of five stages of –

1. Need Recognition: Recognize and judge whether there is a need to buy the product.
2. Information Search: time is spent on deciding the type of product, urgency to buy the product, level of involvement and so on.
3. Alternative Evaluation: evaluate all options before actual buying.
4. Purchase Decision: choice of a product to buy on the basis of gift vouchers, return policies, warranties and consumer service.
5. Post-Purchase Behaviour: level of satisfaction, fulfillment of need, perception about the product, future purchase decision.

The consumer is often exposed to choice overloads of variety of goods which can be countered by a 4 C Approach of Cut, Concretize, Categorize and Condition.

Use of Small Data and not Big Data

For some time 'big data' was regarded as a buzz word. But companies have realised that 'big data' isn't as useful as they were told, and that smaller, precise data sets answer questions quicker and cheaper. In that case, a Behavioural Economist can help companies reduce their costs and time spent on 'big data'. In their research, they could find which variables lead to these precise 'small data'. Their ability of separating data is reflected through a Behavioural Economics tool, the 'conceptual models' that used to identify consumer

groups, classified by their needs and wants. The most important factor, in that case, is **human psychology**. In order to classify those groups, Behavioural Economists analyse descriptive characteristics, such as gender, income, age and education, and behavioural dimensions, such as benefits, usage rates and loyalty status.

Behavioural economists could effectively apply the analysis and understanding of **consumer behavior**, as well. It includes the consumer's behavior when face-to-face with the seller, or the pre-purchase behavior of the consumer, according to the available information collected up to that point. More emphasis could also be given to the post-purchase outcomes and reactions of the existing consumers, in order to evoke positive feelings (about the performance of the good) that will lead to additional word of mouth and loyalty on the company's brand.

Social Norms And Herd Instincts

The 'nudge theory' was coined and popularized in the 2008 book, 'Nudge: Improving Decisions about Health, Wealth and Happiness', written by American academics Richard H. Thaler and Cass R. Sustein. As defined by them a nudge is any aspect of the choice architecture that alters people's behaviour in a predictable way, without forbidding any options or significantly changing their economic incentives. But Economists and Psychologists still argue over the application of this theory. However, its essence can be practically used by Behavioral Economists, especially when it comes to behavioral science terms, such as 'social norms' or 'social norming'.

According to Alan D. Berkowitz the social norms approach states that our behavior is influenced by incorrect perceptions of how other members of our social groups think and act. According to Thaler, in real life: "People like to do what most people think it is right to do; people like to do what most people actually do." The Behavioral Economists and marketers could make a point by applying 'social norming': "9 Out of 10 People Pay Their Taxes On Time". which will work.

Big Risks – Big Wins

Behavioural Economists can conduct behavioural and decision-making research in their labs. Research and tests in real-world scenarios are often used, although they tend to be more expensive than those in a lab. Such experiments involve a lot of inherent risks: of running expensive, time-consuming; out-of-the-lab experiments might be an additional risk a company has to take in order to improve their performance and outmatch their competition. Therefore, Behavioural Economists could work as full-stack analysts, dealing with a wide variety of projects, depending on the company's needs. Consequently, companies could potentially save in terms of both human resources and money

Consumer Behaviour and Behavioural Economics

We can consider the heuristics and biases that are closely related to the prevalent theories in behavioural economics – prospect theory and mental accounting (Kahneman and Tversky, 1979; Thaler, 2015).

Status quo bias. Among the many key principles that prospect theory identifies, **reference point** (options are perceived as either loss or gain against a reference point) and **loss aversion** (losses loom larger than gains) are the two most widely studied and applied aspects in consumer research. search demonstrates consumers' status quo bias and the endowment effect in various consumer decisions

(Thaler and Sunstein, 2008). Because of people's reference dependence, they tend to rely on status quo, or pre-set default, and consider any deviation from these reference points as a loss. Subsequently, due to their loss aversion, consumers prefer maintaining the current or pre-set state (i.e., default) rather than switching away from the default. Evidence has been obtained across various consumer domains: Setting higher tipping

defaults results in higher average tips in consumption environments involving tipping and setting a “green” electricity default substantially reduces energy consumption. In fact, the power of default is so strong that even disclosing how default works to influence consumer decisions does not reduce the effect of default.

Endowment effect: Consumers’ asymmetric responses to losses versus gains have also led to the endowment effect – **an inclination to value more highly and pay more for an item that is already in one’s possession than items that one does not yet own** (Thaler, 1980). Recent research has taken a step further and shown that a mere perceived ownership can lead to the endowment effect and increase consumers’ willingness to pay for products. For example, endowment effect has been observed when consumers merely touch the screen to learn about the product versus using the mouse (Brasel and Gips, 2014), or simply think about how important a product is to oneself (Maddux et al., 2010). Based on these effects, one could predict that providing consumers with opportunities to try the products before they make a decision, or presenting the attractive products first before showing the price and surcharge, can lead to an endowment effect and increase valuations of products.

Mental accounting: Another key finding in BE that influences consumer research is mental accounting – a type of cognitive bookkeeping that individuals use to keep track of financial activities and to control consumption (Thaler, 1985). One of the key constructs to help consumers track and control their spending is earmarking, whereby they assign expenses into different (mental) categories (e.g., food, entertainment) and constrain their spending based on the pre-assigned budget in each category. This has been shown to improve self-control in overspending on products (that do not belong to the assigned category), and to reduce perceived pain of payment and thus increase the consumption enjoyment of products that have already been pre-assigned to a category. Similar earmarking effects have been found in saving, where workers received wages in envelopes earmarked with different purposes such as saving for health care or saving for child expenses, which significantly increased workers’ savings behaviour (Soman and Zhao, 2011).

Availability Heuristics: Availability bias refers to people’s simple inference based on information that is easily accessed in their mind. In the consumer literature, scholars have conducted extensive research to examine how perceived availability, or ease of retrieval, can impact consumer decisions. In various product choices, consumers who were asked to generate fewer reasons for choosing a target product or to recall fewer positive features of a product had a more favorable attitude towards the target products compared with those who were asked to generate more reasons or to recall more features of the product, because recalling less is easier and the recalled options are more readily available (Menon and Raghurir, 2003). In the new-product domain, research has further examined the role of product newness in the effect of ease of retrieval on product adoption, showing that the availability heuristic is more pronounced for really new products compared with incrementally new products, because consumers usually have little prior knowledge about really new products and are more susceptible to context effects.

Salience heuristics. As such, salience is often employed to nudge consumers towards a desired behaviour. Consistent with the well-known examples of nudging healthy food choice by placing healthier food options in more visible and salient positions (Bucher et al., 2016), recent research has demonstrated the findings from the opposite perspective that highlighting an unhealthy label decreases consumers’ choice of unhealthy food (Shah 2014). A more recent large-scale research project in service marketing has further shown the effect of salience in encouraging the usage of online service to reduce cost. In this study that was conducted in Ontario, Canada, only 10% of residents use online service for their license plate sticker renewals, and government needed to spend \$35 million annually on infrastructure required for in-person service. Researchers designed a salience-based intervention on the renewal notice that was sent to residents by simply making the option of online service and its benefits more salient (compared with the traditional visit to physical service centers). The results showed a significant switch of number of residents from visiting the physical service center to utilizing online service to renew their license plate, which not only helped

consumers save time but also decreased the infrastructure cost at physical service centers and could save the government up to \$612,000 annually.

Anchoring effect: Another heuristic is the anchoring effect, whereby people make estimates by anchoring on an arbitrary reference value in the decision context such as a phone number, social security number, or other random number generated by a wheel, and they indicated higher WTP (Willingness To Pay) when those random numbers were higher (Tversky and Kahneman, 1974). In the credit card payment domain where a “minimum payment warning” is required on the credit card statement, research has identified a strong correlation between minimum repayment amount and actual repayment amount, suggesting that consumers use the minimum payment amount as an anchoring point for their payment decision (Salisbury, 2014; Stewart, 2009). Later research further showed that a randomly determined “suggested payment amount” on a credit card statement can play a similar role by providing an anchoring point for consumers’ credit card repayment decision, and it nudges consumers towards a more desirable payment decision that can reduce future credit card debt (Bartels and Sussman, 2016).

The Power of Simplicity: Being cognitive misers, consumers are often intimidated by the large amount of information they are exposed to or the effort that is required for them to move towards a desired goal (Fiske and Taylor, 1991). Therefore one of the key nudging strategies to elicit positive behaviour is simplification. Simplifying steps for tax filing, for opening bank accounts, and applying to college have all yielded successful increase of the desired target behaviour (Ly et al., 2013). In the financial domain, research demonstrates that having one saving goal resulted in higher savings compared with having multiple saving goals, because the former case was simple while the latter increased the decision difficulty and led to saving deferral.

In the sustainable consumption domain, simplicity-based interventions such as using traffic light signals to indicate the water usage during a shower significantly reduced the effort to monitor water usage, shortened shower time, and increased water conservation (Ly et al., 2013).

A few marketing strategies and nudging that may facilitate the choice of a consumers and enhance the sale for the marketers are-

Free Incentive v/s Equivalent Price Discount: It has been observed that what consumers prefer is a free gift or ‘buy two and get one free’ option rather than an equivalent price discount.

Similarly, a mode of extended payment or layaway plans make the payment less painful instead of full and on the spot payment.

Social Proof: Social Media Reviews: It has been observed that majority of consumer go by reviews while deciding to buy a particular product.

Choice Overloads: If too many options are made available or displayed to a consumer, she is likely to get confused and postpone her purchases. If few selected options are shown then a decision to purchase comes faster.

Endowment Effect: If a good or service is personalized or the belongingness is emphasized, it works very effectively. For Example if the consumer feels that it is “my” car, the decision to purchase is more satisfying.

Default: It refers to continuously giving an update, a mail, an offer to the consumer.

Framing: The marketers have realized that displaying a few cheaper options increases the possibility that the consumer chooses a more expensive option. In the grocery shops, healthy

foods may be displayed in such a way (place) that they are easily picked up (even if expensive). **Decoy effect:** Consumer's preferences get determined to choose a particular product compared with another, when a third and yet another less desirable option is shown to her.

Thus, nudges have to be simple and yet enabling all the preferences still available and should maintain freedom of choice and transparency and effectiveness.

Consumers, Markets and Policy

Neoclassical economics and governmental economic policy have long been overwhelmingly based on a view of the consumer as a rational *Homoeconomicus* who actively engages in a search for information on the best available product/service option, knows and considers all cost and benefits, and follows her "true" preferences. However, psychologists have long known that consumers usually display "bounded rationality", in the sense that they depart from the standard account in predictable and systematic ways. Due to those departures, consumers can make serious errors by compromising their own interests. In practice, consumers have to make many highly complex decisions, often in situations characterized by scarcity of time, knowledge, or negotiation power.

BE encourages systematic thinking about such problems in order to design policy solutions on the basis of the empirical evidence. One goal of behaviourally informed consumer policy is to design policy tools that are more effective, efficient, and less intrusive and that ultimately guide consumers to make and stick to better decisions for themselves

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