



Case study: Rational or irrational consumers?

Introduction

This case study has been written by teachers for teachers to support the delivery of a new topic within the specification. It provides ideas and suggestions for teaching approaches and is not intended to provide exhaustive coverage of this topic. It is not intended to be prescriptive or indicative of content and questions in the specification and assessments. The specification must be referred to as the authoritative source of information.

This case study focuses on rational and irrational consumers. It provides research ideas and practice questions for students for use within class or as homework activities.



Rational or irrational consumers?

This resource sheet is designed to support the AS and A level Economics A specification Topic 1.2.1: Rational decision making:

- a) The underlying assumptions of rational economic decision making:
- consumers aim to maximise utility

and Topic 1.2.10: Alternative views of consumer behaviour:

- a) The reasons why consumers may not behave rationally:
- consideration of the influence of other people's behaviour
 - the importance of habitual behaviour
 - consumer weakness at computation.

Are consumers rational?

As Jodi Beggs has put it in her article *What Is Behavioral Economics?*, traditional economic theory has assumed that consumers are 'perfectly rational, patient, computationally proficient little economic robots that know objectively what makes them happy and make choices that maximise this happiness'. To do this we would have to end up with a consumption bundle where the satisfaction obtained from consuming the last unit of a particular type of good per pound spent is equal to the satisfaction we are getting on the last unit consumed of other product types per pound spent! Otherwise we could shift our spending between products to give us more utility! And do we even know what will make us happy?

Are consumers, when they go shopping, rationally making these spending decisions? Although we probably all hope we are maximising our happiness, and perhaps convince ourselves that we are, it is apparent that what drives much consumer behaviour is altogether far removed from the traditional economic view of the consumer. Behavioural economics is a relatively new field in economics which is attempting to model how consumers *really* make decisions.

Introduction to behavioural economics

Psychologists believe that the brain processes two types of thinking. One way we process information is automatic and intuitive (the automatic system); the other way is through reflective and rational thought (the reflective system). As Richard Thaler and Cass Sunstein put it in their book *Nudge*, 'One way to think about all this is that the Automatic System is your gut reaction and the Reflective System is your conscious thought.' The decisions we make involve both systems interacting together.

Because our time is precious (we cannot spend hours analysing all our spending decisions) and information is often too complex to make analytical assessments of the costs and benefits of our decisions, we tend to rely on rules of thumb (heuristics or short cuts) to help us make choices on what to consume. Behavioural economists believe that these rules of thumb provide a clue as to why consumers in practice often seem to make systematic, biased decisions which seem to contradict the model of the consumer as rational.

Behavioural economists have also identified a range of consumer behaviour which suggests that we are subject to psychological biases when we make decisions about what to consume. Behavioural biases *do* suggest that consumers are irrational.



The reasons why consumers may not behave rationally

1. Consideration of the influence of other people's behaviour

One key behavioural bias observed in individuals is *herding behaviour*. According to Thaler and Sunstein, 'We are greatly influenced by *consumption norms* within the relevant group.' For example, if we see our friends drinking alcohol, we are more likely to do so, too. Even housing market booms can be caused by this effect: some people start investing in houses so others think this is a good idea, too. We seem to be particularly *influenced by what other people do* when making our consumption decisions.

2. The importance of habitual behaviour

The '*status quo*' bias is the tendency which individuals have of just sticking with their current situation. We observe this in the weekly shop of most families at the supermarket, and in the tendency to stay with the same bank even though others may be offering a higher interest rate. This is often linked to individuals wanting to 'play safe', not wanting to risk a change which might make them worse off (*loss aversion*). This bias can cause consumers to lose out on possible utility gains (and also links with the default option mentioned later).

3. Consumer weakness at computation

Humans are particularly bad at mathematical computation. For example, we find it really hard to understand probabilities and to make forecasts about how we will feel in the future.

In Richard Layard's book *Happiness: Lessons from a new science*, he states that people tend to *exaggerate small probabilities* into their thinking. This is often observed in how individuals react to 'health scare' stories in the media. Articles on how we triple our chance of getting some horrible illness can overly swing consumers into avoiding certain foods. The purchase of super foods may also soar despite the fact that its effect on reducing our real risk of a disease may be mathematically almost negligible.

Layard also points out that individuals find it *hard to forecast future feelings*. Individuals always think their purchasing decision, eg whether to buy a new car, will give them happiness for a longer time than it does in reality. 'If only I had the latest iPhone ...'

Products which have an *addictive element* also cause particular problems for individuals. They have a tendency to underestimate the future problems of trying to stop once they start and instead overly base their decision to buy cigarettes on the immediate gratification they receive. Individuals also have an *unrealistic optimism*, despite statistical data, and so 'overestimate their personal immunity from harm' (source: *Nudge*).

Amos Tversky and Daniel Kahneman (1974) studied how humans go about making judgements. They observed three heuristics (mental short cuts) which individuals tend to use to help them *when uncertainty exists* and *where assessing the probabilities involved would be too complex*. They help consumers make quick and often useful decisions. Let's look at some examples from the perspective of a consumer.

- Should I spend money on an upgraded and more secure front door? What is the likelihood that I might be burgled if not? The *availability heuristic* says that people, as a mental short cut, tend to base their assessment of risk on immediate examples which spring to mind. If I have recently watched a programme on the negative impact of being burgled, I am likely to over base my judgement on this and think my chances of being burgled are actually higher than they are. Therefore 'availability bias' is at work, which will influence my consumption decision.
- Should I buy a bread maker? A famous example from Dan Ariely involves a retail business based in San Francisco. They originally offered one type of bread maker to the market priced at \$275. There were virtually zero sales. They then launched a \$400 bread maker on the market which was bigger but otherwise had the same features. The



original, smaller bread maker's sales doubled! The *anchoring heuristic* shows a human tendency to make decisions by comparing with a nearby reference point. The first bread maker had no reference point so consumers were left muddled about its value and whether they wanted it. Once the \$400 bread maker became a reference point (an anchor), consumers then decided the cheaper option was an attractive proposition, despite the fact that it was being viewed by the same consumers with supposedly their own preferences and was the same bread maker. We rely too much on the first piece of information (the anchor) which is presented to us. It is clear that the anchor itself can lead to very different consumption decisions.

In Thaler and Sunstein's book *Nudge*, when *issues are complex*, making it hard for individuals to assess the full costs and benefits of a consumption decision, individuals tend to just go with the '*default option*', ie the choice that has effectively been chosen for them. For example, if you take out a magazine subscription, unless you actively cancel the subscription it will automatically be renewed. People tend to let their subscriptions carry on without engaging in an active rational assessment as to whether the magazine will generate sufficient utility for another year. This affects consumption patterns and intelligent firms can exploit this tendency!



Research ideas

1. Produce a leaflet for a canteen manager at a school on how to improve healthier eating for its pupils. Make sure the behavioural economic links are made. (Type in 'smart lunches behavioural economics' on the internet to get a range of resources geared to this.)
2. Because individuals are bad at computation, how a decision is *framed* affects choices made by individuals. Explore what this means and write a summary.
3. Investigate how the use of behavioural insights could help structure public policy in relation to healthcare. Produce an informative handout. Use plenty of examples.
4. Research how behavioural economics can help identify some of the causes of the recent credit crunch.

Some suggested resources

- Tutor2u (www.tutor2u.net/) has a growing bank of useful resources on this subject – the Mo Tanweer introductory article on behavioural economics (2010) is worth reading as a starting point.
- www.gov.uk/government/organisations/behavioural-insights-team is a useful resource. If you click on the 'press' option, the website has a databank of very useful newspaper and BBC articles.
- *Nudge* by Thaler and Sunstein is a good book to read or dip into.

Short-answer questions

1. Most people pick a retirement savings plan and then forget about it, despite opportunities to make a higher return by switching their investments over time. This demonstrates that:
 - A consumers are rational.
 - B consumers have a tendency to stick with the 'status quo'.
 - C consumers will always behave in such a way to maximise their utility.
 - D the costs of switching are always greater than the benefits.
2. Which statement is true?
 - A Other people's behaviour has no influence over an individual's consumption decision.
 - B A rational consumer never aims to maximise utility.
 - C Behavioural economics makes the assumption that consumers are rational.
 - D There are many reasons why consumers may not behave rationally.
3. It is difficult for consumers to make a fully informed consumption decision because ...
 - A consumers have perfect information to help them make choices.
 - B it is always easy to compare the prices of goods and services.
 - C they are strong at computation skills.
 - D information is not always perfect and available to consumers.



4. There are currently over 12.7 million mobile phone deals being offered within the UK with a range of options, such as pay as you go or a monthly contract, the handset included, and the number of minutes and texts included in the contract.
 - a) Explain why this makes it difficult for a consumer to make a rational decision.
 - b) Many individuals will stick with their current deal over time, despite other deals being offered which would increase their utility. Give *two* distinct reasons why this behaviour is often observed.
5. Explain why it is particularly hard in the second-hand car market for consumers to decide which car to buy.
6. To what extent was your decision to study Economics a rational one?
7. Explain why a reduction in the price of a good should cause its sales to rise. (Use your knowledge of both traditional economics and behavioural economics.)
8. In the UK, a change in legislation now means employees will automatically be enrolled in corporate pension plans unless they actively choose to opt out. Explain why this is likely to increase retirement savings.

Essay questions

1. School meals must follow nutritional guidelines. The UK government has introduced free school meals for all children in their early years at school as one method to combat obesity and improve the nation's health, both today and in the long run. Take up is optional, but most schools will recommend this to parents instead of bringing in a packed lunch.

Evaluate the likely effectiveness of this policy.
2. 'The most effective way for the government to stop people smoking is to put up excise duties on cigarettes.' With reference to the information provided and your own knowledge, to what extent do you agree with this statement?



Marking guidance

Some suggestions on where reference to behavioural economics could be made *as part of* answers to the data-response-style question and essay questions.

Essay questions

1.

- Parents may lack information and computational skills to be able to accurately assess the full costs and benefits for their child of a having a nutritionally healthy school lunch. They might underestimate the long-term gains this may have on improving their child's eating behaviour in later life (they underestimate the private benefits of consumption for their child).
- Behavioural economics would suggest that many parents will choose the free school lunch as the 'default option'; the fact that it is free will also increase the take-up rate according to traditional economic theory.
- Once children go to junior school, it is hoped that habitual behaviour has set in and, assuming parents are not overly price sensitive (PED is relatively inelastic), children will carry on having a school lunch.
- If most people opt for the free nutritious lunch today, the social attitude towards a good balanced school lunch being part of the expected behaviour also changes positively, which suggests future generations of children will benefit. Also, if most children go for the lunch then children themselves will be influenced by the behaviour of their peers and assume that eating healthy food is a 'consumption norm'.

Hopefully children will start to eat more nutritionally, which should improve what they eat and how they make food choices in the long run. Effectiveness depends on the extent of take up, whether children actually eat the food presented and how long the policy runs. It is also only one meal and a lot of eating behaviour is to do with what happens in the home, so needs to be combined with other policies such as sugar tax, legislation on the advertising of junk food, health awareness campaigns etc.

2.

- One key limitation of just relying on excise duties is that some consumers are price insensitive, hence the reason why excise duties are a significant way for the government to raise tax revenue.
- Key reasons why people may choose to start smoking or carry on are often linked to behaviour of their peers, the tendency to underestimate the future private costs of consumption, unrealistic optimism that they will be immune from harm and the social attitude towards smoking. All these factors link to behavioural economics.
- Students will probably argue that these need addressing in policies as well as by using excise duties. The tax revenue from the excise duty could be channelled into providing better information to help the rational consumer be able to make a more informed choice (media campaigns as well as education in schools etc).
- Policies need to change the 'social norm', to change the attitudes in society towards smoking in all age and socioeconomic groups. Extract D provides some evidence that the ban on smoking in public places has helped to shift attitudes to some extent, and probably the legislation on plain packaging has also contributed. All designed to shift consumption norms away from the product.
- Whatever the policies implemented, some people will find it hard to stop due to the strength of their addiction. The NHS will have to be able to provide support for these people to reduce smoking in this group.