

Agenda

Advancing economics in business

Helping those that help themselves? The benefits of active customers

How far do consumers go to find the best deal? Dr Luke Garrod, ESRC Centre of Competition Policy, University of East Anglia, and Professor Morten Hviid, ESRC Centre of Competition Policy and Norwich Law School, University of East Anglia, consider various studies on whether consumers seek out information before making purchasing decisions, whether firms help or hinder this situation, and what this means for competition

Effective competition requires effective consumers

If consumers were unwilling to be active in the market by searching out the best deals and reacting to them through switching, firms would have a local monopoly over their current consumers. This occurs first because no firm would be constrained by its rivals' behaviour since consumers would not react to it, and second, because no firm would have a unilateral incentive to improve its offering to the consumer as it would not attract new sales from its rivals. Adverse effects in such cases can arise solely from the demand side.

Despite early recognition that consumer behaviour can affect firms' market power,¹ serious focus among academics and policy-makers on such demand-side issues has occurred only recently. A discussion paper produced for the UK Office of Fair Trading (OFT) by the Centre for Competition Policy surveys this literature.² This article picks up some of the themes discussed in the discussion paper, in particular the extent to which policy-makers can help consumers either directly by improving available information, or indirectly by incentivising firms to provide this.

Where there is competition in a market, firms strive to attract custom by meeting the wants and needs of consumers more effectively than their competitors. Such competition can provide consumers with low prices, high quality, wide variety, and new and innovative products, while firms delivering this will be rewarded by more custom and higher profits. However, as observed by Waterson (2003), 'If every consumer thinks the competitive process works well, it doesn't work.'³ To make markets work well, sufficient consumers have to play an active role in finding the best deal. Even in a

market with many firms, if consumers stay loyal to just one firm (for whatever reason), no firm will feel the pressure from rivals to offer consumers better terms of trade.

The OFT and the UK Competition Commission both design remedies in situations where markets fail to work well for consumers. In market references, Section 131(2) (c) of the Enterprise Act 2002 identifies customer conduct as a potential market feature, which has the ability to prevent, restrict or distort competition. Market studies (OFT) or market investigations (Competition Commission) that find an adverse effect on competition (AEC) normally involve consideration of remedies. These remedies can be aimed at protecting consumers, at making consumers more active, or at enabling (some) firms to communicate more credibly with consumers. Four of the Commission's first five market investigations were conducted in predominantly 'final consumer' markets (only the investigation into classified directory advertising services was mainly business-to-business). In these four investigations, the Commission found an AEC in each case, and many of the remedies imposed were focused on enabling consumers to be more active.

Thus, in policy terms, the emphasis to date has been on activating consumers directly by making it easier for them to acquire the necessary information, or indirectly by offering firms the means of communicating credibly and truthfully with consumers. The latter may be surprising, but there is some empirical evidence that demonstrates that firms may be better than third parties—such as government departments and consumer protection agencies—at communicating with consumers. For example, Ippolito and Mathios (1995) examine changes in consumption during two regulatory regimes in the USA.⁴ One regime was characterised by

attempts by third parties to educate the public about links between fats and disease risks. The other gave firms incentives to provide this education themselves through advertising and labels. Their main finding was that, while consumers responded to information flows throughout the two periods by reducing their fat consumption, the rate of change in fat consumption was higher when the information was provided by the firms. It is therefore worth speculating about what can be achieved through incentivising firms to provide accurate and useful information to consumers—for example, as part of a set of remedies imposed by a competition authority.

The unravelling principle

The ‘unravelling principle’ suggests that firms have an incentive to provide consumers with complete information about their own products, if there are relevant differences between products, and if firms can make credible statements about these. The intuition behind this is that if no firm revealed the relevant information, consumers would assess all firms as ‘average’ in terms of what they offer. Therefore, the firm offering the best terms has an incentive to disclose its information to consumers in order to avoid being considered average. Among any group of firms yet to reveal information, there is a firm that is ‘best among the rest’, which is hurt by being considered only average among the rest and which therefore also discloses information. This unravelling occurs until there is one firm left (that offers the worst deal on the market), and consumers correctly infer its quality from its silence.⁵ Moreover, this logic does not depend on the number of rival producers.

However, the unravelling principle rests on the assumption that the truthfulness of revealed information can be verified either directly by consumers or at least by a trusted third party. Consequently, the principle suggests that a powerful remedy may be to help firms make credible statements so that they are able to communicate with their consumers. The unravelling principle may not be as effective when some of the assumptions on which it is based are relaxed. For example, Jovanovic (1982) and Cheong and Kim (2004) show that information provision is incomplete where disclosure is costly.⁶ Farrell (1980) finds that unravelling may not occur where acquiring information is costly for the producer.⁷ Milgrom and Roberts (1986) argue that competition is not generally sufficient to provide decision-makers with full information about products if they are strategically unsophisticated.⁸ Shavell (1989) highlights the importance of the credibility of the firms’ statements.⁹

While there are some theoretical reservations about the power of the unravelling principle, the empirical evidence is more positive, providing evidence that the unravelling

principle does exist in reality, although it rarely works perfectly. For example, Mathios (2000) studies the impact of mandatory labelling on salad dressing in the USA during a change to the laws governing that food products must display labels.¹⁰ Before the law changed, displaying nutritional labels was voluntary (although regulation ensured that any statement on a label had to be truthful) and, as a result, all low-fat salad dressings included a label, while the majority of the high-fat products did not. After nutritional labels became mandatory, the highest-fat dressings experienced a significant loss of market share as consumers made more informed choices over the fat content of their salad dressing.

Policy interventions that enable firms to make credible statements about features of their product which consumers care about may thus prove powerful. However, in the assessment of such a policy, the cost of monitoring, verifying and enforcing the veracity of such statements must be factored in.

Searching for information

If firms or government agencies do not provide the relevant information, the onus is on consumers to find this out for themselves. The problem here is that it can be costly (in terms of the money, time and effort) for consumers to gather price and non-price information about goods and services.

In some markets consumers may incur a cost for each additional outlet searched, to return to a previously visited outlet, or to become informed about all products available and the terms of trade through an information clearinghouse (such as a magazine or price comparison site). Such ‘search costs’ can mean that (at least) some consumers are willing to buy a particular good at a certain price even though the same good might be available elsewhere at a lower price, or if another good which suits their needs more is available at the same price in another store. From the consumer’s perspective, the perceived benefits from searching are outweighed by the expected costs of searching.¹¹

A robust result obtained in theoretical search models is that the average price in the market falls as the proportion of consumers willing to search the market increases or the cost of search decreases. The proportion of searchers may be small because benefits are systematically underestimated, because search costs are high or systematically overestimated, or both. Thus remedies which act directly to reduce real search costs have the most potential by increasing both the proportion of searchers and the extent of each search. Remedies aimed at altering misperceptions have less certain effects, and are more difficult to assess *ex ante*.

Experience and credence goods

The information consumers need to make their purchasing decisions may not be forthcoming through search alone. This is the case, for example, for products whose quality cannot be assessed prior to some experience of use or consumption.¹² Consequently, there can be an informational asymmetry pre-purchase as consumers may be unaware of a product's quality, whereas firms are fully informed.

The problem here is that, when firms' claims about their products cannot be verified, fully rational consumers will disregard any information that is provided. Consequently, the unravelling principle may fail to provide consumers with the relevant information.

Crucially, the ability of consumers to verify the quality of different products pre-purchase depends on the characteristics of each product. Caswell and Mojduszka (1996) point out that labelling and government monitoring can affect how we might classify a product prior to purchase, which can help consumers to gauge and verify product characteristics more effectively:

For example, mandatory nutrition labelling makes characteristics such as fat content into search attributes that can be verified by reading the package label, while government oversight of claims increases their credibility. Thus labelling policies are intended to improve the quantity, and often the nature, of quality signalling in markets in order to improve the functioning of markets for quality attributes.¹³

Price comparison sites

At first sight, the Internet would seem to provide answers to the problem of searching involving complex products. While there is evidence that price comparison sites can help, there is also evidence that consumers may not be willing to spend time to find the best deal for them. In addition, the fact that price dispersion remains on such sites indicates that the ability for consumers to compare instantly does not in itself generate a 'perfectly competitive' outcome.

Price comparison sites, operated by a regulator or a private company, at least provide consumers with a list of prices for similar products that are available from multiple firms and, in some cases, with additional information such as total expenditure. The ability to search the market with a single click of a mouse has the potential to radically reduce search costs as consumers can quickly locate the best deal, which can intensify competition. While one might expect that the Internet would create intense price competition, and even lead to the 'law of one price', current research suggests that this belief is

optimistic, despite robust evidence that price comparison sites have lowered prices.¹⁴

Two examples illustrate this point. Scott Morton, Zettelmeyer and Silva-Risso (2003) show that consumers pay on average 2.2% less for cars using a referral site (a saving of \$450 on average).¹⁵ Ellison and Ellison (2004) show that demand for computer memory becomes extremely price-sensitive when a price comparison site plays a dominant role, but price dispersion of around 5% remains.¹⁶

There are several reasons why price competition may not lead to the 'law of one price' on price comparison sites. One explanation is that consumers may be unwilling to purchase from the lowest-priced firm if it is an unknown brand. Smith and Brynjolfsson (2001) find that consumers use brand as a proxy for retailer credibility and shipping reliability, so well-known book retailers can maintain a \$1.72 price premium, on average, over lesser-known retailers.¹⁷ OFT (2007) also suggests that consumers are willing to pay a premium for goods at a 'bricks and clicks' retailer compared with a retailer that is online only, as this provides more security if the product is faulty.¹⁸

Another explanation is that consumers may be unwilling to spend time and effort on checking each firm's offerings even though it can take just a single click of a mouse. They instead focus on the products that are most prominent. For example, Brynjolfsson, Smith and Montgomery (2004) show that only 16% of consumers search more than one firm on a price comparison site, and as few as 9% clicked through subsequent search pages.¹⁹

Baye and Morgan (2001) question the incentives of information clearinghouses to intensify competition to such an extent that consumers receive all the benefits from competition.²⁰ Their intuition is that, (i) if the price comparison site is so efficient that there is no price dispersion then it has no informational value and receives no profit; and (ii) intense competition in the product market leads to zero profit for subscribing firms, which eliminates the rents the price comparison site can extract from them. This then raises the question of the appropriate ownership of price comparison sites.

Further thoughts

There is another potential limit to the effectiveness of informational remedies—namely, the fact that consumers' time, attention and information-processing powers are themselves bounded and/or their preferences and motivations may be configured differently from the standard model. This may result in behaviour, including responses to the remedies

themselves, which is difficult to explain or predict conventionally. The effects of this (which have their foundations in the psychology and behavioural economics literature) are explored further in Garrod et al. (2008). More information is not always for the better.

A secondary concern is that if consumers are fully insured from any mistakes they may make, whether through inadequate search, bad judgement or abusive

behaviour by sellers, their incentives to be active are severely limited. The more consumers face the full force of bad decisions, the more one would expect to see them taking steps to minimise mistakes and to learn from the past. Where the cost of errors and of learning are not too large, restricting attention to general consumer education to help consumers help themselves may be a better way of making markets work well than measures to protect the consumer.

Luke Garrod and Morten Hviid

¹ See, for example, Stigler, G. (1961), 'The Economics of Information', *Journal of Political Economy*, **69**, pp. 213–25.

² Garrod, L., Hviid, M., Loomes, G. and Waddams Price, C. (2008), 'Assessing the Effectiveness of Potential Remedies in Consumer Markets', OFT Discussion Paper, OFT994.

³ Waterson, M. (2003), 'The Role of Consumers in Competition and Competition Policy', *International Journal of Industrial Organization*, **21**, pp. 129–50.

⁴ Ippolito, P. and Mathios, A. (1995), 'Information and Advertising: The Case of Fat Consumption in the United States', *American Economic Review*, **85**, Papers and Proceedings, pp. 91–95.

⁵ See Grossman, S. (1981), 'The Informational Role of Warranties and Private Disclosure about Product Markets', *Journal of Law and Economics*, **24**, pp. 461–83; and Milgrom, P. (1981), 'Good News and Bad News: Representation Theorems and Applications', *Bell Journal of Economics*, **12**, pp. 380–91.

⁶ Jovanovic, B. (1982), 'Truthful Disclosure of Information', *Bell Journal of Economics*, **13**, pp. 36–44; and Cheong, I. and Kim, J. (2004), 'Costly Information Disclosure in Oligopoly', *Journal of Industrial Economics*, **52**, pp. 121–32.

⁷ Farrell, J. (1980), 'Price as Signals of Quality', PhD Dissertation, Brasenose College, Oxford University.

⁸ Milgrom, P. and Roberts, J. (1986), 'Relying on the Information of Interested Parties', *RAND Journal of Economics*, **17**, pp. 18–32.

⁹ Shavell, S. (1989), 'Sharing of Information Prior to Settlement or Litigation', *RAND Journal of Economics*, **20**, pp. 183–195.

¹⁰ Mathios, A. (2000), 'The Impact of Mandatory Disclosure Laws on Product Choices: An Analysis of the Salad Dressing Market', *Journal of Law and Economics*, **43**, pp. 651–77.

¹¹ A comprehensive review of the search cost literature is provided by Baye, M., Morgan, J. and Scholten, P. (2006), 'Information, Search, and Price Dispersion', in T. Hendershott (ed), *Handbook of Economics and Information Systems*, Elsevier.

¹² Nelson, P. (1970), 'Information and Consumer Behaviour', *Journal of Political Economy*, **78**, pp. 311–29.

¹³ Caswell, J. and Mojduszka, E. (1996), 'Using Informational Labeling to Influence the Market for Quality in Food Products', *American Journal of Agricultural Economics*, **78**, p. 1252.

¹⁴ See Garrod (2008) et al., section 4.

¹⁵ Scott Morton, F., Zettermeyer, F. and Silva-Risso, J. (2003), 'Consumer Information and Discrimination: Does the Internet Affect the Pricing of New Cars to Women and Minorities?', *Quantitative Marketing and Economics*, **1**, pp. 65–92.

¹⁶ Ellison, G. and Ellison, S. (2004), 'Search, Obfuscation, and Price Elasticities on the Internet', MIT Department of Economics Working Paper 04-27.

¹⁷ Smith, M. and Brynjolfsson, E. (2001), 'Consumer Decision-making at an Internet Shopbot', *Journal of Industrial Economics*, **49**, pp. 541–58.

¹⁸ OFT (2007), 'Internet Shopping', OFT Market Study, June.

¹⁹ Brynjolfsson, E., Smith, M. and Montgomery, A. (2004), 'The Great Equalizer? Consumer Choice Behavior at Internet Shopbots', MIT Sloan Working Paper No. 4208-01.

²⁰ Baye, M. and Morgan, J. (2001), 'Information Gatekeepers on the Internet and the Competitiveness of Homogeneous Product Markets', *American Economic Review*, **91**, pp. 454–74.

If you have any questions regarding the issues raised in this article, please contact the editor, Derek Holt: tel +44 (0) 1865 253 000 or email d_holt@oxera.com

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