

DEMAND ANALYSIS, CONSUMER BEHAVIOUR AND TELECOMMUNICATIONS POLICY

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by Patrick Xavier (Swinburne University of Technology, Melbourne) and Dimitri Ypsilanti (OECD, Paris)

Abstract. Regulation of the telecommunications sector has focused mainly on the supply side of the market e.g., market entry and licensing, access, interconnection, control over retail and/or wholesale pricing. This emphasis on the supply side was appropriate since the task was to install effectively competing alternative suppliers in former monopoly telecommunications markets. As competition has developed and the number of new entrants in fixed and mobile telecommunications markets has grown, there has been increased attention by some telecommunications regulators on the consumer demand side e.g., ‘number portability’ aimed at facilitating consumer ‘switching’.

Such attention to the consumer demand-side is timely because informed consumers who are able and prepared to exert an ability to choose between competing suppliers are necessary to stimulate firms to innovate, improve quality and compete in terms of price. In making well-informed choices between suppliers, consumers not only benefit from competition, but they initiate and sustain it. Conversely, where consumers have too little information, poor quality information, or mis-information, they may end up misled and confused by the choices on offer, may pay too much or buy the wrong service. This may, in turn, inhibit and dampen the competitive process. For consumers to engage effectively in the market and use their ability to vote with their wallet, they need to be able to move quickly between service providers.

Government policy and regulation has traditionally been concerned with minimising detriment to the consumer interest resulting from a lack of consumer information, or misleading information, or mis-selling. But ‘demand side analysis’ is presenting improved insights into actual consumer behaviour that may exhibit systematic departures from the “rational” behaviour assumed by conventional (neoclassical) economics. That is, even when presented with full information, consumers may not always understand and/or use that information to their advantage. This raises questions about whether, and if so, what different policy or regulatory intervention may be necessary to help consumers adopt decisions in their best interests.

This paper examines the available evidence of actual consumer behaviour and analyses implications for policy and regulation. It addresses questions of whether consumers are satisfied with their present telecommunications provider; of whether dissatisfied consumers decide to switch; of how dissatisfied consumers could be equipped with the information and confidence to ensure that a decision to switch or not to switch is in their best interests.

The paper concludes that key opportunities for furthering participation in the telecommunications market revolve around efforts to: educate consumers about the alternative services and suppliers that are available; highlight the tangible benefits of any new service; enable better comparison of alternative price and quality; make the switching process easier; faster and cheaper and allay fears regarding the potential risks associated with switching. There is also a role for education to make consumers aware of their biases (*e.g.* in heavily discounting costs). For instance, to counter “hyperbolic discounting”, consumers might be counselled to consider carefully whether a flat rate contract or a “free” mobile phone handset with a two-year contract really does suit their usage level and pattern.

DEMAND ANALYSIS, CONSUMER BEHAVIOUR AND TELECOMMUNICATIONS POLICY

1. INTRODUCTION

Regulation in the telecommunications sector has focused mainly on the supply side of the market including, for example, market entry and licensing, access to and use of networks, interconnection, control over retail and/or wholesale pricing. This emphasis on the supply side has been appropriate because the task was to install effectively competing alternative suppliers in former monopoly telecommunication markets. As competition has developed in telecommunication markets and users have a wider choice of service providers, there has been increased attention by some regulators on the demand side. For instance, a ‘demand-side’ measure introduced in many countries is the requirement for ‘number portability’ aimed at facilitating consumer ‘switching’ in the fixed line and mobile markets.

Such attention to the consumer demand side is timely because informed consumers prepared to choose between competing suppliers are necessary to stimulate firms to innovate, improve quality and compete in terms of prices. Indeed, in making well-informed choices between suppliers, consumers not only benefit from competition, but they exert the sustained pressure for providers to compete for their custom. Conversely, where consumers have too little information, poor quality information, or mis-information, they may end up misled and confused by the choices on offer, may pay too much or may buy the wrong service. This may, in turn, inhibit and dampen the competitive process. Moreover, if suppliers can exploit consumers this could at some point lead to ‘reputational damage’ and disillusionment with the competitive process as a whole. Hence consumer protection is critically important from an economic as well as social rationale.

Telecommunication policy and regulation in the interests of the consumer

Policy and regulation in the telecommunications sector has long been concerned with the consumer interest (including consumer protection and empowerment). Legislation, policy and regulatory statements repeatedly claim that the welfare of consumers is a, if not *the*, primary objective of policy and regulation. In an increasing number of countries, policy and regulation for telecommunications has been pro-competitive in recent years since competition is believed to have wide economic benefits and benefit consumers. Rivalry among suppliers to attract and retain consumers is supposed to result in suppliers that serve consumers well prospering relative to those that do not. Pro-competition policies have included *ex ante* sector-specific regulation and *ex post* competition policy based on general competition law to foster competition and restrict anti-competitive conduct.

Now with market liberalisation and alternative telecommunications suppliers becoming firmly installed in many countries, questions are emerging about whether consumers have in fact ‘switched’ to these alternative suppliers as much as had been expected. If not, why not? Should policy makers/regulators intervene? And, if so, how? In seeking to answer these questions, important information can be gleaned from analysis of the demand-side, including new insights from behavioural economics into actual (as distinct from normative) consumer behaviour.

Demand side analysis, including ‘behavioural economics’

Conventional economics starts with a number of assumptions about consumer behaviour, including that:

- consumers approach markets with a set and stable set of preferences
- consumers are concerned only with their own welfare

- in aggregate at least, consumers can rationally use available information to make optimal decisions.

Demand-side analysis, including so-called ‘behavioural economics’, goes beyond these assumptions. It argues that in some situations consumers consistently depart from behaviour predicted by these assumptions. In other words, consumer choice is biased away from those that would occur if behaviour conformed to the assumption of ‘rationality’. A key issue for a demand-side analysis is examining “what is actually going on in terms of consumer outcomes” (Sylvan 2006). This involves examining the product features as well as consumer choice issues and how the product or service is being offered or presented. An important insight of behavioural economics is that it is not only the product that matters but the context as well.

The conventional economic approach recognises that information asymmetry and information failure may lead to sub-optimal consumer outcomes. It also recognises that consumers face a “bounded rationality” (*e.g.* in the form of various costs of acquiring and processing information) and, as a result, rely on ‘heuristics’ (such as reliance on a firm’s reputation and other price and quality signals) in decision-making. Consumer policy has therefore focused on removing those market failures that prevent consumers who, even though they behave rationally, are nevertheless prevented from making optimal choices that maximise their welfare.

A substantial amount of regulation has been directed at these problems, including implementing misleading conduct laws (*e.g.* prohibition on fine print disclaimers, requirement for plain language contracts); disclosure requirements; product regulation; and regulation aimed at allowing consumers to conveniently switch between suppliers – such as the development of interoperability standards and number portability (as discussed later) in the telecommunications industry. Other

potentially useful tools include: provision of price and quality comparison data for consumers and the use of calculators (technical tools usually on websites) allowing consumers to enter data to enable them to make price comparisons.

Behavioural economics challenges some of the presumptions of conventional economics that consumers make their choices coherently and rationally given their preferences and the constraints upon them. Behavioural economics involves the study of *actual* consumer behaviour (by contrast with how consumers should behave). It argues that consumers often fail to act in their own best interests due to behavioural traits such as failure to process information objectively or mis-evaluations about the costs and benefits of prospective decisions. For example, research conducted on switching activity by low-income households in UK electricity markets found that on the whole these consumers did not switch provider in a way that could be explained by any rational set of criteria. Only 7% of consumers chose the cheapest option and, indeed, 32% changed to a supplier that was more expensive (Wilson and Waddams-Price 2005).

Among the biases identified by behavioural economics, the following may be particularly relevant to the telecommunications market and may help to explain how, even where there is adequate information, consumers may be making seemingly irrational decisions in choosing an operator or service package (OECD 2006):

- **Choice overload:** consumers having too many products or features to compare and may experience increased anxiety about the possibility of making a bad choice. This can lead to random choice, or failure to make any choice, resulting in missed opportunities for buyers and sellers. A type of “analysis paralysis” can take hold when information and choice becomes very complex.

- **Endowment** – consumers may be reluctant to give up what they have, even though they would not buy such goods or services if they did not already have them (*e.g.* consumers may stay with the incumbent fixed line provider because of misplaced loyalty, a failure to acknowledge poor choices in the past, or an irrational consideration of sunk costs).
- **Defaults** – the ordering of options, particularly in markets where a choice must be made, influences choice. Consumers may tend to take a path of least resistance, particularly if they feel that there is a ‘normal’ option (*e.g.* people may buy ‘standard’ bundles offered by telecommunications suppliers, even if they do not want the whole telecommunications bundle).
- **Hyperbolic discounting** – consumers tend to be short-sighted when making decisions with immediate costs or benefits to be weighed against future costs or benefits (*e.g.*, consumers may enter long-term telecommunications contracts because they place more value on the immediate benefits of the offer, such as a free or heavily subsidised handset or a reduced first month rate, or free local calls, rather than on the long term costs of a contract such as high price for calls exceeding a usage ‘bucket’, the inability to switch to lower priced alternatives, and the inability to take advantage of latest technology).
- **Framing biases** – consumer choice is influenced by the ‘frame’ in which information is presented. Presentation of the same information in a different ‘frame’, can lead to a different decision.
- **Heuristics** – consumers often take short cuts (*e.g.* by following rules of thumb) when the decision environment is too complex relative to their mental and computational capabilities. These rules of thumb are called “heuristics” and are often accurate enough to be useful, but may sometimes lead to sub-optimal decisions.

2. INFORMATION IMPERFECTIONS

Where consumers have too little information or too much information of inconsistent quality, various types of detriment can arise, including:

- consumers failing to participate in the market at all, because they have limited awareness of the products and services on offer, or conversely because they are confused by an excess of available information (sometimes referred to as ‘information overload’)
- consumers paying too much
- consumers buying the wrong product or service
- consumer disappointment with the product or service, because it turns out to lack the expected level of quality. (Ofcom, 2006a)

Constraints on the ability of consumers to process information can also lead to non-optimal, welfare-reducing decisions even when the information available to them is plentiful and non-deceptive. For example, comparison of prices for telecommunications services offered by different suppliers is complicated by the wide range of possible consumer usage patterns, detailed variations in price levels and price structures and the large number of possible discount and bundled schemes available. Moreover, operators and service providers regularly adjust their pricing strategies either through changes in components of their tariff structure, or the introduction/withdrawal of various discount schemes and service packages.

Technological advances and market pressures have made telecommunications and ICT products and systems increasingly complex and feature rich. But this has also increased the complexity

faced by consumers in determining appropriate products that satisfy consumer needs and in evaluating alternative product offerings by competing providers.

Ability and willingness to switch

Barriers to switching service providers can be present due to high switching costs. Switching costs can be defined as the real or perceived costs that are incurred when changing supplier but which are not incurred by remaining with the current supplier.

The ability and willingness of consumers to switch is critically important. If switching is discouraged or impeded this could impact not only on the demand side but also potentially raise supply-side barriers (Barrow 2007). This is because new entrants could be deterred from entering the market in the belief that it will be difficult to persuade consumers to switch from their existing provider. This could diminish 'contestability' and the effectiveness of competition and limit the benefits that consumers would otherwise derive from it.

In the UK, research conducted by Ofcom (2006b), the UK National Consumers Council (2006) and others suggest that in the telecommunications sector there are, in fact, a range of important deterrents to switching, including:

- lengthy and cumbersome switching procedures that make it inconvenient for consumers to switch and can outweigh any potential benefits
- early exit charges, imposed by an existing provider, that reduce the benefits of switching
- confusing products and non-transparent pricing that make it difficult or time consuming to compare deals (as in the case of mobile telephony and the Internet)

- technical incompatibility of equipment can make it uneconomical for consumers to switch (for example, if they cannot use a blocked mobile phone with their new provider)
- long-term deals that lock consumers into lengthy relationships with their providers (as may occur with mobile telephony and Internet contracts) and increase the risk of them being overcharged.

Consumers will not switch to a competing brand unless the price difference exceeds the switching costs. Where switching costs are high, it is possible for a provider to set very low prices, even prices below cost to attract new consumers, but then subsequently charge these consumers prices well above costs once they are 'locked-in'. This 'bargain then rip-off' pricing pattern is a characteristic of many markets with high switching costs (NERA, 2003).

3. EVIDENCE OF ACTUAL CONSUMER BEHAVIOUR IN TELECOMMUNICATIONS MARKETS

As noted earlier, behavioural economics involves the study of *actual* consumer behaviour as distinct from how consumers *should* behave. Accordingly, this section examines the available evidence of actual consumer behaviour in the telecommunications services sector and influences on such behaviour.

Consumer behaviour in the fixed line market

United Kingdom

Ofcom's research (Ofcom 2006b) found that in the United Kingdom, one in three (34%) of the fixed line consumers surveyed had changed the supplier providing their home fixed-line service in the last four years (2003-2006). However, two-thirds (66%) had not switched in this time period

and the majority (52%) had not even considered doing so. Regardless of whether or not they had switched supplier in the last four years, 34% had made some change to their existing service with their current supplier in this time period. A similar proportion claimed to keep an eye on the market: around a third (36%) agreed that they were always on the look-out for a better deal and a similar proportion (31%) agreed that they made a conscious effort to keep up-to-date with what other providers were offering. In this context, it is notable that according to Ofcom's research, 86% of fixed line consumers in the UK were satisfied with their overall experience with their current supplier: almost half (46%) were very satisfied and a similar proportion (40%) were fairly satisfied. Clearly, if consumers are satisfied, there may be no/less reason for them to switch.

Consumer responses to Ofcom's questionnaire surveys indicated that the greatest deterrent to shopping for an alternative fixed line supplier is the possibility of getting locked into a contract with a new supplier: two-thirds of consumers (67%) agreed that they would be put off by this. The second greatest barrier to switching was reluctance to leave a known and trusted supplier for one that is unfamiliar – stated by 65% of consumers. In the fixed line market, many consumers have been with their supplier for many years. For some consumers, their relationship with their fixed line supplier was perceived as being more important than whether they could get a better deal elsewhere. Because of the 'endowment factor' -- a factor influencing consumer behaviour underlined by behavioural economics -- these consumers would only switch if they had experienced a serious betrayal of trust that incites a 'revenge value' to switching. As many as one in two (53%) fixed line consumers agreed that they had a strong sense of loyalty to their existing supplier (Ofcom 2006b). No significant differences were detected between demographic groups. In other words, differences are due to attitudes and behaviour rather than by differences in demographics.

In summary, Ofcom concludes that in the fixed line market, in the face of an undifferentiated market (perceived or actual), some consumers are adopting fallback, risk-averse strategies and will stay with what they know and trust, even though it might not be the best rational option. This appears to support the arguments of behavioural economics. Ofcom’s findings suggest that the greatest chance of furthering participation in the fixed line market are efforts to help consumers to overcome their inertia, by allaying fears regarding the potential risks associated with switching services, or by educating them regarding the tangible benefits of any new service over and above their existing arrangement (Ofcom 2006b).

Portugal

The level of switching in Portugal’s fixed line market has also been relatively low. Table 1 indicates that about two-thirds (64%) of consumers interviewed as part of an Anacom (the telecommunications regulator) study were satisfied with the prices charged by their fixed network provider. This degree of satisfaction with a key aspect of service would clearly reduce the disposition to switch.

Table 1. Degree of satisfaction towards fixed line prices in Portugal

Very satisfied	5.8%
Satisfied	58.2%
Not satisfied	29.5%
Not satisfied at all	4.1%
Do not know/Did not respond	2.5%

Source: Anacom, “Electronic Communications Consumer Survey, February 2006 – Key Findings”, May 2006.

Consumer behaviour in mobile telecommunications markets

United Kingdom

Ofcom found that more than a third (36%) of mobile telecommunications consumers in the UK had changed their mobile phone network supplier in the last four years. The figure rises to 52%

for those who are on an annual contract and falls to 29% for those who are on pre-pay packages. However, two-thirds (66%) had not switched in this time period and the majority (53%) had not even considered doing so. Even among the 7% who had considered switching, not all had actively started looking for an alternative.

Ofcom pointed out that although the majority of consumers in the mobile phone market have not considered changing their supplier, they are nevertheless 'participating' in other ways. 32% had made some change to their existing service with their current supplier during this time period. While consumers were far more likely to change the tariff or package they were on (31%) than ask their supplier to match a better deal they had seen elsewhere (8%), mobile phone users seemed aware of their potential to negotiate. 62% of those on contracts had changed their existing tariff/package and 16% had attempted to renegotiate their package/deal. Around a third of all consumers claimed to keep an eye on the mobile phone market. 32% agreed that they were always searching for a better deal and 28% agreed that they made a conscious effort to keep up-to-date with what other providers were offering. In terms of reasons given for not switching, more than half the telecommunications consumers surveyed (54%) said that they were very satisfied with their overall experience with their current supplier and another third (36%) said that they were fairly satisfied. Post-pay and pre-pay consumers were equally satisfied with their current network supplier.

The research also identified a range of procedural and psychological barriers perceived by mobile telecommunications consumers as Table 2 indicates. The greatest deterrent to shopping for an alternative mobile phone network supplier was the possibility of getting locked into a contract with a new company. Around two-thirds of consumers (68%) agreed that they would be put off by this.

Reflecting a similar sentiment, the second greatest barrier to shopping was reluctance to leave a known and trusted supplier for one that was unfamiliar, an issue for 64% of consumers. This refers to the extent to which consumers value their relationship with their mobile phone network supplier. More than one in two (55%) agreed that they had a strong sense of loyalty to their existing network supplier. This was particularly the case for inactive consumers of whom 39% were likely to be ‘relational’ people (with a preference for using trusted brands known or recommended to them) and only 14% were likely to be

Table 2. Perceived barriers to shopping and/or switching mobile phone suppliers in the UK

Response to Question (with prompted reasons): “I did not switch my mobile phone supplier because..”:					
Reason	Agree %	Strongly agree %	Total agree %	Post-pay %	Pre-pay %
Don’t want to get locked into contract with new provider	47	21	68	47	52
Reluctant to leave provider I trust for one I don’t know	47	17	64	52	59
Strong sense of loyalty towards current provider	36	19	55	No difference	
Shopping for new provider too much of a hassle/chore	41	12	53	41	49
Only short term gain as providers follow each other	43	9	52	No difference	
Difficult to make comparisons b/w providers	38	9	47	35	53
Don’t have time to research options	38	9	47	34	54
Don’t want to lose current deal/package	32	14	42	No difference	
Big risk that something will go wrong in transition	30	7	37	No difference	
Don’t know enough to make right choice	28	9	37	27	42
Bound to feel stupid/out-of-date when I talk to sales staff	21	12	33	24	37
No difference in cost of supplier	28	4	32	27	33
No difference in quality of supplier	26	3	29	23	32
Don’t know where to find trusted info about options	21	5	26	No difference	

Note: Base: All mobile (500). Percentages represent share of total sample.

Source: Ofcom, 2006b.

‘transactional’ people (willing to consider unfamiliar brands if they offer a good deal). This manifestation of the ‘endowment factor’ and ‘irrational’ fear of changing to a new provider are consistent with the arguments of behavioural economics.

Lack of confidence, heuristics, and information overload also appeared to play a role in decision-making. Among so-called ‘inactive’ consumers, 48% did not feel they knew enough to make the right choice and 42% expressed concern about ‘appearing stupid in front of sales staff’. 44% were willing to accept a solution that they felt was ‘good enough’ rather than investigate all options to find the ‘best’ one (17%).

In this market, consumers on contracts may also be bound to their suppliers as a result of having negotiated or been given special deals: two fifths (42%) of consumers expressed concern about losing the package or deal they were on. Early exit penalties could also apply.

The process of shopping was itself likely to discourage around half of the consumers surveyed: 53% agreed that shopping for a new supplier was too much hassle; 47% agreed that it was difficult to make comparisons between suppliers; and 47% agreed that they did not have enough time to research the options. Moreover, the majority (52%) perceived that the gain would be short term because all the suppliers follow each other. As Table 2 indicates, this is particularly the case among pre-pay consumers, who perceived higher barriers to shopping than those on contracts: 82% of pre-pay users agreed they did not want to be locked into contracts with a new provider. They were also significantly more likely to regard shopping for a new network supplier as an onerous process, approaching it with lower levels of interest and confidence than contract users.

In summary, Ofcom concluded that the evidence suggests that in the UK mobile telecommunications market, in the face of complexity and lack of market differentiation (perceived or actual), some consumers will stay with what they know and trust, even though it might not be the ‘best’ option. Ofcom concluded that the greatest chance of furthering participation in the mobile phone market is through efforts made to influence these key drivers,

for example by educating them in regard to the tangible benefits of any new service over and above their existing set-up, by making the switching process easier or by helping consumers to overcome their inertia.

Portugal

In Portugal, Table 3 indicates that of those mobile telecommunications consumers responding to a survey conducted for Anacom about 19% have switched. Of these, about one-third switched

Table 3. Switching mobile telecommunications operator in Portugal

Have already changed operator	19.3%
Most of my contacts are clients of new operator	34.6%
Unhappy with prices	33.3%
Unhappy with quality of service	13.7%
Offer from new operator	8.6%
Other	20.6%
Never changed operator	80.7%
Satisfied with current operator	66.2%
Most of my contacts are clients of current operator	31.2%
Offers the best prices	6.6%
Switching is too complicated / inertia	3.2%
Decision of another person	2.8%
More / better network coverage	0.8%
Keep the same number	0.4%
Other	4.0%
Do not know / Did not respond	2.3%

Source: Anacom 2006

because “most of my contacts are clients of the new operator”. Presumably there was some advantage with being on the same network such as network coverage and/or discounted or free calls to consumers on the same network. Another one-third of those who switched did so because they were ‘unhappy with prices’ of their old operator. 13.7% of those who switched did so because they were unhappy with the quality of service provided by their old operator and 8.6% because of an offer from the new operator.

Of the 80.7% who had never changed their operator, 66% were satisfied with the current operator and 31.2% because “most of my contacts are clients of current operator”. Only about 10% of consumers seemed focused on price as a driver of switching and even less (about 4%) on quality of service.

Australia

The results of a questionnaire survey in Australia for ACMA (the telecommunications regulator), summarised in Table 4 provides some additional information on consumer satisfaction.

Table 4. Consumer satisfaction with telecommunications services in Australia, 2004 to 2006

Respondents were asked ‘In the last 12 months, how well have each of the following service providers met your overall expectations?’ Excludes ‘no answer’ and ‘doesn’t apply’								
	Exceeded my expectations		Mostly met my expectations		Sometimes met my expectations		Rarely met my expectations	
	July 2004- June 2005	July 2005- June 2006	July 2004- June 2005	July 2005- June 2006	July 2004- June 2005	July 2005- June 2006	July 2004- June 2005	July 2005- June 2006
Local telephone company	7.8%	8.2%	73.9%	73.3%	13.3%	13.5%	5.0%	4.9%
STD telephone company	7.0%	7.5%	75.4%	74.7%	12.9%	13.2%	4.7%	4.6%
International telephone company	7.4%	7.1%	73.5%	74.3%	13.7%	13.4%	5.5%	5.3%
Mobile phone service provider	9.4%	9.9%	72.5%	72.1%	13.1%	13.4%	5.0%	4.6%
Internet service provider	10.2%	11.2%	68.6%	68.9%	15.6%	15.3%	5.5%	4.6%

Source: Roy Morgan Research, questionnaire survey sample of approximately 23,000 people aged 14+ years, cited in ACMA 2006

During the July 2005 to June 2006 period, satisfaction levels (defined as ‘exceeded’ or ‘mostly met expectations’) were more than 80 per cent for mobile telecommunications providers as well as fixed line and Internet service provider. The highest satisfaction levels were for long distance

fixed line telephone companies (82.2%). Internet service providers were the providers who most exceeded expectations (11.2%).

Consumer expressions of the ‘likelihood’ of them switching service provider offer another measure of consumer dissatisfaction with their current provider. The Australian survey also provides some information in this regard, summarised in Table 5. The likelihood of consumers switching service provider ranged from: about 13.5% for fixed line providers, 14% for mobile telecommunications providers and 16.5% for Internet service providers during the period July 2005 to June 2006. The remaining consumers said they were either ‘unlikely’ or ‘neither likely nor unlikely’ to switch providers.

Table 5. Consumer likelihood to switch providers in Australia, 2004-2006

Respondents were asked ‘How likely would you be to switch companies, if you were able to buy that service from another company?’ Excludes ‘no answer’ and ‘doesn’t apply’						
	Very or fairly likely to switch		Neither likely nor unlikely to switch		Very or fairly unlikely to switch	
	July 2004- June 2005	July 2005- June 2006	July 2004- June 2005	July 2005- June 2006	July 2004 June 2005	July 2005- June 2006
Local telephone company	13.5%	13.2%	29.2%	27.9%	57.3%	58.8%
STD telephone company	13.0%	12.8%	29.8%	28.3%	57.2%	58.9%
International telephone company	11.8%	11.5%	30.7%	29.1%	57.5%	59.5%
Mobile phone service provider	14.5%	13.9%	29.2%	28.2%	56.4%	57.9%
Internet service provider	16.8%	16.5%	30.6%	28.3%	52.5%	55.2%

Source: Roy Morgan Research, questionnaire survey sample of approximately 23,000 people aged 14+ years. Cited in ACMA (Australian Communications and Media Authority), 2006.

United States

A report based on responses to a questionnaire survey of 1,000 households conducted in the United States in 2005 found that 36% of respondents replied that early termination fees ranging

from US\$150-US\$240 (as shown in Table 6) had prevented them from switching (CALPIRG Education Fund, 2005).

**Table 6. Early Termination Fees of Major US Mobile Telecommunications Service Providers
July 2005**

Company	Early Termination Fee
Cingular	USD 150
Nextel	USD 200
Sprint	USD 150
T-Mobile	USD 200
Verizon	USD 175

Note: These operators control about 80% of the US mobile telecommunications market.

Source: CALPIRG Education Fund, 2005.

89% of mobile telecommunications consumers considered that early termination fees are designed to prevent consumers from switching. They disagreed with the mobile telecommunications operators' claim that the termination fees are a necessary part of the rate structure (to enable them to recover the costs of subsidizing handsets, 'buckets' of free calls, etc).

Consumer behaviour in Internet Markets

United Kingdom

According to Ofcom's research, awareness of alternative suppliers is lowest in the Internet market with around 20% of Internet consumers in the UK unable to spontaneously name any narrowband or broadband Internet service providers (ISPs) in their area. However, half of Internet subscribers were spontaneously aware of two or more narrowband suppliers, and this rises to 74% when prompted (Ofcom 2006b).

Just over one quarter (28%) of UK consumers have switched their ISP supplier – 18% having changed supplier more than 12 months ago, and 9% more recently. These are lower levels than for fixed or mobile services, perhaps reflecting the earlier stage of development for

Internet/broadband services. Just over a quarter (28%) of the Internet consumers surveyed had changed the supplier providing their household's Internet connection in the last four years.

However, about three-quarters (72%) had not switched during this time period and the majority (46%) had not even considered doing so. Even among the 13% who had considered switching, not all had actively started looking for an alternative.

Ofcom found that regardless of whether or not they had switched ISP in the last four years, almost three-quarters (72%) had made some change to their existing service with their current ISP in this time period. This was mainly the result of consumers switching connection type (62% had done this) and/or switching tariff, including upgrades to connection speed (53% had done this). Few (10%) had re-negotiated their deal (*i.e.*, asked their current ISP to match a better deal they had seen elsewhere). Thus, even though the research shows that many consumers in the Internet market have not considered changing their Internet service provider (ISP), competition had allowed them to 'participate' in other ways.

Compared with broadband users, narrowband users were significantly less likely to have made any changes to their existing package: 24% had changed connection type and 25% had changed their tariff or package.

According to Ofcom's research, the greatest deterrents to active participation in the market include the possibility of getting locked into a contract with a new supplier (68% of consumers); reluctance to leave a known and trusted ISP for one that was unfamiliar (63% of consumers); and perceived efforts of shopping around, including difficulty in making comparisons between ISPs (44%) and not enough time to research all the options (40%). The main drivers of participation include interest in technology and desire for low cost and/or willingness to consider unfamiliar

brands if offered a good deal. There were few demographic differences, suggesting participation is influenced by attitudes and behaviour rather than by differences in demographics.

This information suggests that in the face of complexity (perceived or actual), inactive consumers are adopting fallback, risk-averse strategies and will stay with what they know and trust, even though it might not be the ‘best’ option. This is consistent with the argument of behavioural economics that an ‘endowment factor’ serves to influence decisions in favour of the present provider.

4. IMPLICATIONS FOR POLICY AND REGULATION

Regulation of information disclosure

More information is usually seen to be desirable. A demand-side ‘behavioural’ perspective warns that if consumers have limited cognitive abilities, either generally or in a particular situation, then adding more information may result in information overload and hence in worse decision making. Excessive disclosure can confuse consumers (as evidenced in the case of mobile phone and Internet tariffs options) and can also discourage firms from providing useful information through their advertising. In these cases, the need is not for *more* but for better (perhaps less) information in a structured easily comprehensible format (Gans 2005).

Typically, a mandated disclosure is intended to improve the information received by the less-informed buyers to a greater extent than by those more sophisticated consumers who may already possess and be able to process the requisite information. But the reverse can also be the case where it is the more sophisticated (and more cognitively-capable) consumers who can make more use of the information contained in a mandated disclosure. For example, mandating information

on broadband download speeds and caps can be of far more use to those consumers who have at least a basic knowledge of technical features of broadband capacity (*e.g.* bits per second).

Differences in the incidence of benefits from mandated disclosure means that any costs could tend to be different as well. Some consumers may be provided with information they cannot use, some may be provided with information they do not need, and some others will be overloaded with information, but all will have to pay for the compliance and related costs (OECD 2006).

There are many situations, however, where an information disclosure remedy is necessary and appropriate. Even in competitive markets, suppliers may possess market power if consumers are not well informed about products, supply conditions and/or alternatives and feel unable/unwilling to switch between these alternatives. Providing consumers with more and better information, for example, through mandatory disclosure or through third party certification may facilitate more active participation in the market and wiser decision-making (Better Regulation Executive 2007).

Addressing behavioural biases

Just as informational problems may be multi-faceted, so, too, may problems that result from *behavioural biases*. It is important for policy and regulation to recognise these biases and develop a fuller understanding of the needs and motivations underlying consumer behaviour in telecommunications markets.

Not all behavioural biases lead to consumer detriment. For the most part they do not lead consumers to depart significantly from optimal decisions. Public policy should be concerned only with those biases that lead to significant detriment. When markets fail because of such costly biases, remedies should be shaped accordingly. For example, a situation of choice or information overload could be aggravated by a requirement for more information disclosure. Rather, the

appropriate intervention may involve re-framing the information that is available to consumers in a way that makes choice easier (OECD 2007).

The policy implications of demand-side analysis in some respects are more challenging than those derived from the more traditional approach to consumer protection and empowerment. For instance, behavioural economics predicts that for various reasons some consumers (or consumers in some circumstances) may act in ways that are inconsistent with their 'ex ante' preferences. Consumers may use information in ways not predicted by neoclassical theory or they may, for various reasons, not use available information. Thus, while in some cases providing more information or providing information in a different form may remove or reduce the risk to consumers, this will not always be the case. If it is to be effective, an effort to inform consumers must appreciate how people actually think. The behavioural response to identical pieces of information will depend on how they are presented and framed.

Thus, in circumstances where the conduct of suppliers alters the preference set of consumers and hence their choices resulting in an inferior outcome for those consumers, the solution may lie in regulatory intervention that aims to "steer people's choices in welfare-promoting directions without eliminating freedom of choice" (OECD 2008). However, the diverse range of factors and circumstances likely to place consumers at risk suggest that regulatory intervention is likely to be detailed and conduct specific.

Resetting defaults. Options can be presented in ways that lead the consumer to gravitate towards certain choices that are in their interests. For example, to overcome the biases of hyperbolic discounting and of default inertia, renewal of a telecommunications contract can be presented with 'opting out' as a default. Policy-makers and regulators could consider the use of 'light'

interventions such as a mandatory ‘opt in’ default provision (rather than an ‘opt out’ default) as part of arrangements for extending a telecommunications contract.

Reframing. Suppliers can be required to present information in a variety of frames, or in specific frames which may guide sound consumer choice. The policy solution under a demand-side ‘behavioural approach’ is that rather than requiring that the consumer read ever more complex contracts, the government can mandate standard form clauses or even standard form contracts. This recognises that consumers probably will not read the contract. But care should be exercised so that in removing ambiguity, the behavioural solution also tries not to limit consumer choice since this can make consumers worse off if parties are now constrained to government-devised contracts that are inflexible and cannot be altered to fit their personal circumstances.

General de-biasing. Although biases are generally deeply ingrained, there is a role for consumer education, making consumers aware of their biases, and helping them to develop mechanisms to overcome those biases that go against their self-interest. For instance, to counter ‘hyperbolic discounting’, consumers might be counselled to consider carefully whether a flat rate contract or a ‘free’ mobile phone handset with a two-year contract really does suit their usage level and pattern. Cooling-off periods can be used to allow consumers to re-frame their choices and to give them an opportunity for rational re-consideration to overcome the influence of impulsive choice, such as those resulting from ‘hyperbolic discounting’.

Recognising risk averseness in the switching process. In addition to making more information available, raising awareness, and addressing some of the behavioural biases that may prevent consumers from actively participating in the market and making decisions to switch where not satisfied, there are some specific measures that can be taken by regulators to reduce practical

impediments to consumers switching from one supplier to another. For example, regulators could ensure that the shortest possible time is taken to complete number portability for consumers switching fixed line and mobile telecommunications providers. Regulators could require that all Internet service providers ensure a simple, costless (or at least cheap) and quick transfer of consumers who choose to switch provider. Regulators could examine the need to limit the “lock in” period for mobile phone handsets in order to facilitate switching. Where applicable, the fee for unlocking the handset should be related to the cost involved.

Vulnerable consumers. The circumstances of vulnerable consumers warrant special attention. For instance, Ofcom’s research in the UK (Ofcom 2006b) indicates that while those without Internet access – frequently older and low income consumers – are less likely to look for information at all, providing price information solely via websites could risk excluding relatively large and vulnerable groups of consumers. There is need for further research to assess:

- consumers use of information sources and how consumers use these when making choices.
- consumer opinion on current information obtained through *e.g.* supplier websites, Internet generally, specialist publications.
- the importance of savings in influencing decisions to switch supplier, what trade-offs are made when considering whether to switch, and the key drivers in consumer decisions to search or switch.
- the extent to which misperception, low awareness of achievable savings or ease of the switching process impacts on consumer switching decisions.

There is a particular need to assess the needs and motivations of consumers -- especially uninvolved and vulnerable consumers -- in more detail to ascertain what would encourage more participation in telecommunications markets. This would assist consideration of whether, and if so what, regulatory intervention is warranted. All consumers want simply understood information. If business and policy-makers design the regulated information with vulnerable consumers in mind, all consumers are likely to benefit.

5. CONCLUSION

This paper distils some basic elements of behavioural economics and demand analysis, examines available evidence of actual consumer behaviour and considers implications for telecommunications policy and regulation. The paper concludes that the insights of a demand side perspective, including behavioural economics, can serve to alert policy makers and regulators in the telecommunications sector to the need for a number of measures.

- Policy makers and regulators should develop a better and fuller understanding of the needs and motivations underlying consumer behaviour in telecommunications markets, especially those of vulnerable consumers (such as those in rural areas, the elderly, minors, disabled, those on low incomes, and the unemployed).
- Policy makers and regulators could assist consumer participation in telecommunications markets by educating consumers about their rights, by raising awareness about new services and options offered by the market, and by making switching in the fixed line, mobile and Internet markets easier, cheaper and faster.
- Regulators should consider requiring that all major operators provide complete, comparable, appropriate and accurate information to consumers through different channels (*e.g.*

through leaflet, radio, consumer hotline and web based programmes) to enable consumers, especially vulnerable consumers, to quickly identify the most suitable and best value telecommunications plan(s).

- Regulators could use more effective means of targeting information to vulnerable groups to provide them with practical guidance about how they can get the best deal.
- Regulators could encourage third parties, including consumer organisations, to provide price/service-comparison facilities through consumer hotlines, websites, etc.
- Regulators could work with fixed line (including Internet service providers) and mobile network operators to develop and publicise a set of comparable indicators relating to quality of service.
- Regulators should ensure that the shortest possible time is taken to complete number portability for consumers switching between fixed line and between mobile service providers.
- Regulators should require that all Internet service providers ensure a simple, free (or at least low-cost) and quick transfer of consumers who choose to switch provider.
- Where not already in place, regulators could require “truth-in-billing”, and restrict harmful business conduct and practices (*e.g.* by prohibiting mis-selling, misleading advertising).

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