CONSUMER PANEL

Ofcom
OFFICE OF COMMUNICATIONS

Consumers and the communications market: 2006

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Foreword from the Ofcom Consumer Panel

This is the second of the Ofcom Consumer Panel (OCP)'s annual research exercises, designed to help the Panel, the policy-makers we advise, consumer groups and the communications industry understand people's experiences of fixed line communications, mobiles, the internet and digital TV.

Ofcom itself dedicates a significant resource to producing quality market research. However, as an independent Panel, we believe it is critical that we conduct our own independent research, complementing Ofcom's. We will draw on this rich evidence base to shape our priorities and the advice we give Ofcom. We hope this research will also be helpful to other groups concerned with consumer and citizen issues in the communications market.

This report examines many issues: residential and small business consumers' understanding of communications technologies; where people go for information to improve their understanding; ownership, use and attitudes towards technologies; experiences of switching suppliers and digital switchover. The significant findings are presented in the executive summaries at the beginning of the research report. This foreword highlights the findings that will shape the Panel's own work in the coming year.

Our key concern is a familiar one – age remains one of the most significant factors affecting how people engage, or don't engage, with communications markets. The research indicates that many (but not all) people over 65 are amongst those who are least likely to be aware of, understand, keep informed about and own communications technologies. And yet amongst this diverse group are those who could most benefit from the social connectedness these technologies can bring.

We have commissioned a separate piece of research to help us understand the barriers that prevent older people engaging with digital technology and the motivations that prompt them to engage. We look forward to sharing our conclusions and working with others on this issue.

The research also shows that low-income consumers spend a higher proportion of their disposable income on communications technology than the rest of the population, have fewer services, are least likely to check they are on the best deals and switch. They are less likely to have connection to the internet and landlines at home. Their level of spend indicates how essential communications services are to them but that low-income consumers remain vulnerable in the market.

The Panel is troubled by what the research tells us about the low levels of awareness and even lower take up of specialist communications equipment by people with hearing and visual impairments, particularly in light of the difficulties they face with mainstream products such as mobiles. The consumer forum we host has cited concerns about costs and the availability of people to help install and show consumers how to use equipment as barriers to take-up. These latter barriers give us particular pause for thought in relation to digital switchover.

The Panel recommended to the Secretary of State for Culture, Media and Sport that the socially isolated receive particular help with digital switchover. This research gives additional weight to this – family and friends are the most popular source of information and advice. People of 65 and older are significantly less likely to know someone with a digital television who could show them how it works. We will continue our discussions with Government and work with Digital UK on the project to try to ensure that that the socially isolated receive the assistance needed through the switchover process.

We believe that opportunities to design and market equipment for people who have an impairment *as a factor of age* and who would not consider themselves in the market for specialist equipment are being overlooked. We will work with the Government, Digital UK, Ofcom, manufacturers, retailers and disability organisations to integrate helpful design features into mainstream digital TV and other products so that they are not only accessible for those with specific impairments, but are also more usable for everyone.

The Panel is very pleased to see that awareness and understanding of 'digital switchover' has increased significantly across all groups of interest since the 2005 study, but note that it remains low amongst older people aged 65 and over and those in low income households. Digital UK has recently launched an information campaign that we hope will build upon this progress.

Dissatisfaction with communications services remains low and yet there has been a notable increase in consumer concerns for all services. Concerns raised include costs, unsolicited and silent calls for mobiles as well as fixed line phones, and spam and pop-ups for the internet. Consumers, especially small businesses, remain least satisfied that suppliers are ensuring they are on the best deal available. Switching levels remain unchanged from 2005. This merits further investigation, in particular how the availability and cost of accessing information affects consumer switching behaviour. The Panel is pleased to note that Ofcom has prioritised consumer protection in its 2006-7 Annual Plan and we hope to report improvements in consumers' ability to seek and use information on pricing and switching in our tracker publication next year.

Overall our research tells a good story but there are problems yet to be addressed, particularly for older and low-income consumers. We are yet to see a marketplace where all consumers have sufficient knowledge, understanding and confidence to choose and use communications products and services that are appropriate to their needs and lifestyle.

Background, research objectives and approach

Background and research objectives

1.1 The Ofcom Consumer Panel is the independent advisory body set up under section 16 (2) of the Communications Act 2003 to advise Ofcom on consumer interests in broadcasting and telecommunications. This report details the findings from the second annual market research project commissioned by the Consumer Panel into the current residential consumer and small business and sole traders' experience of the communications market. This survey assesses changing consumer concerns year on year, and is used by the Consumer Panel to inform its work in a number of areas.

1.2 The research focused on the residential consumer and small business experience of telecommunications (fixed and mobile), the internet (including broadband) and (for consumers only) broadcasting – including digital switchover – and use of technology.

1.3 The two key objectives for the research are to establish:

- What is the level of consumer knowledge regarding what is going on in the communications market and the choices/ alternatives they have now and will have in the future?

- What is the current consumer experience in the communications market?

1.4 As this is the second annual survey a third objective is to identify the trends compared to the 2004 research

Research approach

1.5 This report details the findings from the quantitative survey conducted for the Consumer Panel by the research agency saville rossiter-base. An in-home study was conducted with residential consumers across England, Scotland, Wales and Northern Ireland – from 17 October to 12 November 2005. A telephone study was conducted with owners and managers of small businesses and sole traders across the UK – from 17 October to 8 November 2005.

Residential consumer study sampling

1.6 A total of 2,689 interviews were conducted with residential consumers in their homes by a team of interviewers across 193 locations in the UK. In order To Whom It May Concern: research in detail the very different groups of consumers that the Panel represents, quotas were set to achieve a minimum number of interviews with residential consumers in specific groups of interest to the Consumer Panel:

- Older people aged 65 or over (463 interviews achieved)

- Rural areas (266 interviews achieved) – using Business Geographics' 'Urban Indicator' to classify the interviewing locations according to the size of settlements they contained and the degree of isolation determined by their proximity to larger settlements

- Dense urban areas (461 interviews achieved) – using Business Geographics' 'Urban Indicator' as detailed above

- Those with a limiting long-term illness or disability and aged under 65 (465 interviews achieved)

- Those with a household income of under £11,500 per year and aged under 65 (756 interviews achieved)

1.7 All data reported in this document has been weighted to match the profile for each of the four nations as detailed in the 2001 Census. The profile for each of the groups of interest covered by the survey for the UK as a whole and for each of the four UK nations is shown in figure 1. The table shows in **bold** where incidences of the groups vary significantly from the profile of the UK as a whole. The final row of the table shows the extent to which each of the four UK nations contribute to the overall UK population. This information has been included in order to illustrate that the findings for England will always be close to the findings for the UK as a whole due to the size of the population relative to the other three nations.

Figure 1. Profile of groups of interest by nation[1]

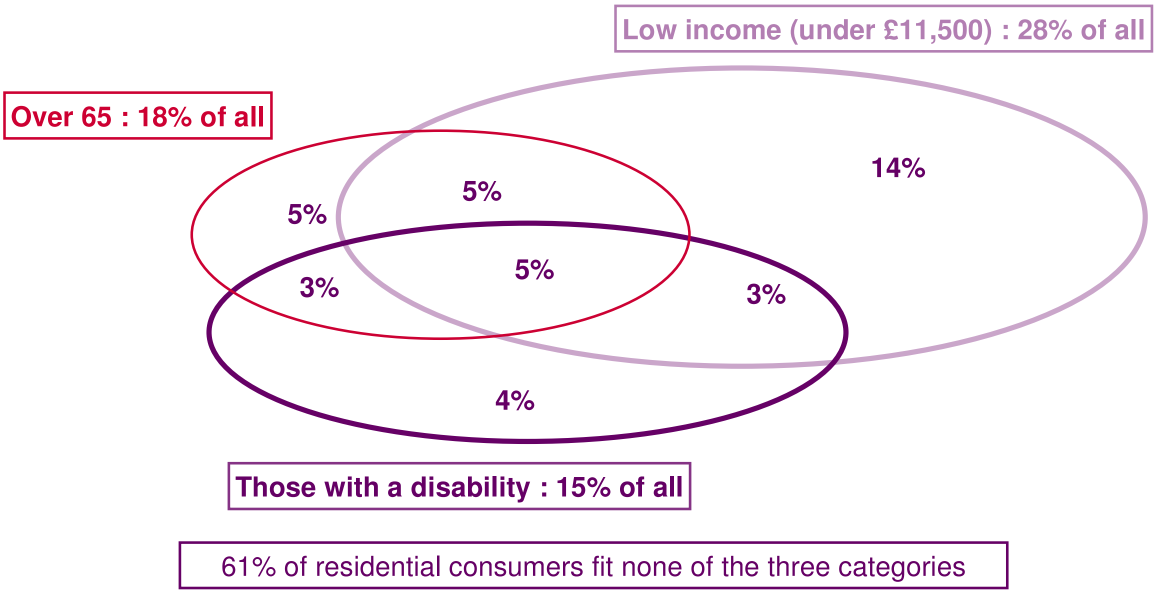
	England 	Scotland 	Wales 	Northern Ireland 	UK TOTAL 
Older people (aged 65 plus)	16%	16%	18%	14%	16%
Rural	13%	16%	**22%**	**35%**	12%
Limiting long term illness/ disability	14%	**18%**	**29%**	15%	15%
Household income under £11,500	26%	**32%**	**43%**	29%	27%
TOTAL NATION SPLIT	**84%**	**8%**	**5%**	**3%**	**100%**

Older people, those with a disability and those in low income households

1.8 Three groups of interest covered by the survey overlap to a significant extent: older people, those in low income households, and those with a limiting long-term illness or disability. This is demonstrated in figure 2 below which shows that the majority of older people aged 65 or over are either in low income households or are people with a disability.

[1] Source: Census 2001, Office of National Statistics and Ofcom data, UK Geographic's urban indicator

Figure 2. Relationship between three groups of interest covered by the survey[2]



1.9 This strong relationship means that findings which appear to relate to those with a disability and/ or those in low income households may actually relate to **older people** within these groups rather than the groups as a whole. As in 2004, in order to disentangle this relationship we have focused our attention on those in low income households who are aged under 65 and those with a limiting long-term illness or disability who are aged under 65. Findings from the interviews conducted with all older people aged 65 or over are also detailed in this report.

Small business and sole trader survey sampling

1.10 A total of 300 interviews were conducted with owners and managers of small businesses by telephone. A sample of small businesses sourced from Dun & Bradstreet was supplemented by contacts taken from classified advertisements in local newspapers across the UK. This supplementary sample served to reach those businesses without separate business premises.

1.11 Quotas were set to achieve a certain number of interviews with small businesses in each of three size categories as defined by the number of employees:

- 1 employee – sole trader (150 interviews achieved)
- 2-5 employees (80 interviews achieved)
- 6-10 employees (70 interviews achieved)

1.12 All data reported in this document has been weighted to match the actual profile of small businesses by business size according to figures published by the Department of Trade and Industry. The profile of the small businesses covered by the survey for the UK as a whole and for each of the three size categories is shown in figure 3.

[2] Base: All respondents (2689 UK adults). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

1.13 The table shows in bold where incidences for a particular small business size category vary significantly from the profile of the UK as a whole. The final row of the table shows the extent to which each of the three business size categories contribute to the overall UK small business population. This information has been included in order to illustrate that the findings for sole traders (those with one employee) will always be close to the findings for small businesses as a whole due to the relative number of businesses of this size.

Figure 3. Profile of small business by size (number of employees)[3]

	1/ Sole trader (150)	2-5 employees (80)	6-10 employees (70)	TOTAL (300)
Have separate business premises	53%	**79%**	**95%**	61%
Business trading for up to 5 years	**38%**	32%	33%	37%
Turnover up to £100k	**84%**	67%	25%	78%
TOTAL SPLIT	**75%**	**20%**	**5%**	**100%**

Margin of error and statistical significance – residential consumers

1.14 Throughout this report we seek to answer the research objectives detailed earlier for the UK as a whole, the four UK nations, and each of the groups whose interests the Consumer Panel represents. Because the survey of residential consumers was conducted amongst a sample of people aged 15 and over rather than the whole UK population, the data may be subject to a small margin of error. The error margin for each of the groups of residential consumers covered by the survey is illustrated in the following table. Error margins rise amongst smaller sub-groups. Results referred to as 'significantly' different, have been tested at the 95% level of confidence. Unweighted base sizes are shown throughout this report to illustrate the number of respondents interviewed.

	All UK	England	Scotland	Wales	Northern Ireland
Sample size	2689	1507	460	366	356
Error margin 95% confidence (+/-)	2%	3%	5%	6%	6%
	Rural	**Dense urban**	**Low income aged under 65**	**People with a disability aged under 65**	**Older people aged 65 plus**
Sample size	266	462	756	465	463
Error margin 95% confidence (+/-)	6%	5%	4%	5%	5%

[3] Base: All respondents (301 small businesses) Ofcom Consumer Panel Survey, October/ November 2005, conducted by saville rossiter-base.
UK 'total split' profile sourced from Department of Trade and Industry October 2004

Margin of error and statistical significance – small business and sole traders

1.15 Throughout this report we seek to answer the research objectives detailed earlier for the UK as a whole, and (where possible) for each of the three small business size categories. Because the survey of small businesses was conducted amongst a sample of businesses with 1 to 10 employees rather than the whole UK small business population, the data may be subject to a small margin of error. The error margin for each of the three size categories is illustrated in the table below. Error margins rise amongst the smaller sub-groups. Results referred to as ‘significantly’ different, have been tested at the 95% level of confidence. Unweighted base sizes are shown throughout this report to illustrate the number of respondents interviewed.

	All small businesses	Sole trader	2-5 employees	6-10 employees
Sample size	300	150	80	70
Error margin 95% confidence (+/-)	6%	8%	11%	12%

Executive summary – residential consumers

2.1 The Consumer Panel conducted research amongst residential consumers aged 15+ in order to understand their experience of telecommunications (fixed and mobile), the internet (including broadband) and broadcasting – including digital switchover – and use of technology.

2.2 This report identifies the current level of consumer knowledge regarding what is going on in the communications market and explores the current consumer experience in the communications market. As this is the second annual survey it also identifies the trends compared to the 2004 research.

Consumers are less aware of the technical terms for communications services than they are of the types of services available – e.g. mobile video calling

2.3 Each of the terms 'broadband', 'digital TV' and '3G' see significant increases in awareness and understanding since 2004. However, it is still the case that the majority of consumers are unaware of the term '3G' and fewer than half of all consumers understand the term 'DAB digital radio'. Awareness of 'VoIP (Voice over Internet Protocol)' is lowest of these communications terms.

2.4 However, consumers are more likely to be aware of the capability of these services than to know and understand their technical terms. For example, awareness of 3G and VoIP services increases significantly on describing the capability of each service to consumers. Outside of England overall awareness of communications services is lower, in particular for 3G and VoIP.

Age continues to be a significant factor in keeping informed with developments – although more 65+ adults keep informed now than last year

2.5 Younger consumers continue to be most likely to keep informed about developments in communications markets, with the proportion keeping informed declining with each age bracket. However, while consumers aged 65+ continue to be least likely to say they keep informed this is to a lesser extent than last year. Around a quarter now say they keep informed about developments, compared with a fifth in 2004.

2.6 The continued growth in adoption of broadband and digital TV is having a positive impact on learning about these technologies from other consumers. More dial-up users now know someone with broadband access who could show them how it works, with a similar picture in relation to digital TV.

2.7 Friends and family members continue to be the most popular top of mind source of information for UK consumers. However, it is important to at least consider where 'friends and family' might be obtaining their advice when analysing the importance of other sources. The internet has become increasingly important as a source of information – particularly amongst consumers who say they keep informed. Responses were broadly similar across the UK although consumers in Scotland were more likely than average to nominate suppliers/stores as a source of advice or information.

Broadband and Digital TV ownership increased significantly since 2004 but levels of involuntary exclusion remain similar - higher amongst low income households

2.8 While ownership levels for the internet remain virtually unchanged since the last survey, there has been a significant rise in use of broadband across the UK. This is most notable in rural areas where broadband use is now broadly similar to the UK average.

2.9 Ownership of digital TV shows a significant increase, driven largely by Freeview. The largest increase in ownership of DTV has been amongst low income households (aged under 65) although the ownership level continues to remain below average. Ownership of the internet, including broadband, is also lower than average amongst consumers in low income households. However, this group is amongst those most likely to access the internet outside the home.

2.10 The proportions of consumers who say they are excluded from communications services are broadly similar to 2004. Given that involuntary exclusion (defined as those not owning technology for reasons other than choice) is mostly related to affordability, it is not surprising to find that (except for mobile phones) levels of involuntary exclusion are highest amongst those in low income households (aged under 65) – more than double the average level.

2.11 This is most noticeable in the internet market although similar to low income groups, these involuntarily excluded consumers are more likely than average to access the internet elsewhere. Levels for involuntary exclusion from the internet are higher in Scotland and Northern Ireland, but in Wales consumers are more likely to say they voluntarily exclude themselves from getting access.

Younger mobile customers tend to make use of a wider range of activities than other demographic groups - but for internet breadth of use are more consistent

2.12 Whilst a majority of mobile phone owners use their phone for simple communication, few are making further use of the phone. The exception to this being the youngest adults, aged 15-24; who are more likely to send photos, videos or emails.

2.12 In comparison to mobile phones, use of the internet is much broader and more consistent across age groups, with the exception of older adults aged 65+. Broadband users tend to make wider use of the internet than narrowband users.

2.13 There were some differences in usage levels across the UK with consumers in Wales making less use of both the internet and mobile phones than average. In Scotland fewer consumers of the internet use this to communicate, transact, or to obtain information for work /studies than other parts of the UK.

Spend on communications is broadly similar across the UK - however, families with less disposable income are spending a higher proportion of this on communications

2.14 There are few differences in spend levels across the UK by nation for each of landline, mobile, internet and multi-channel TV services. However, given the lower average income for some consumers (i.e. consumers living in Wales and

Northern Ireland), spend on communications accounts for a higher proportion of their disposable income than for more affluent parts of the UK such as London.

2.15 The only market which has seen a significant rise in spending levels since 2004 is the mobile market where spend has increased amongst contract customers.

Difficulties using devices is highest amongst older consumers, and those who experience visual or hearing difficulties – however, few in comparison use specialist equipment to assist them

2.16 A minority of consumers say they experience difficulties using each of the communications services with the highest levels reported in the mobile market. Stated difficulties are more than double the average level amongst older people, those with a disability or people who say they have visual or hearing difficulties and, to a lesser extent, those who have mobility difficulties.

2.17 Whilst just over half of those aged under 65 with any disability are aware of any specialist equipment to help in using landline and mobile phones and PCs, few in comparison say they currently have any specialist equipment.

The mobile and internet markets rank highest in terms of perceived 'good value' although ratings across most markets have improved since 2004

2.18 Significantly higher proportions of landline and mobile phone owners consider these services as essential than owners of internet or TV. However, there has been a fall in the proportion considering landlines essential since 2004 and a rise amongst mobile phone owners. There has been no change in these proportions for internet or TV since 2004.

2.19 Around a fifth of non-owners in each of the landline, internet and DTV markets consider these services would be a benefit to them. Perceived benefits to owning a mobile amongst non-owners are lower; at around one in ten.

2.20 More consumers perceive they are getting good value from their communications services compared to 2004. Internet has seen the largest rise, driven by increased use of broadband. Perceptions of 'good value' are higher amongst higher spenders which could appear counter-intuitive. However, it could be argued that those using services more heavily are getting more for their money than infrequent, light users.

2.21 Specifically in the mobile market, pre-pay customers are more likely to say they are getting 'good value' than contract customers. For multi-channel TV services Freeview customers are more likely to consider they receive 'good value' than customers of other platforms.

Despite higher levels of concerns, particularly in the internet market, few consumers are dissatisfied with their overall service

2.22 Nominations for concerns or worries have risen for each of the four services in this year's survey, mostly for landline, internet and digital TV, and to a lesser degree for mobile phones. In the landline market 'privacy' has become one of the highest stated concerns, relating to unsolicited calls/cold calling and also potentially includes 'silent calls'. Unsolicited calls have also become a concern for a minority in the mobile market, an issue which was not evident from this survey last year.

2.23 The overall levels of concern vary across the UK with consumers in Northern Ireland expressing higher than average levels of concern. In Wales and Scotland levels of concern are lower than average with no change since last year.

2.24 Despite these higher levels of concern, dissatisfaction levels remain low overall. Across each of the services consumers remain least satisfied that suppliers are ensuring they are on the best deal available.

2.25 As in the 2004 study, dissatisfaction levels are lowest in the internet market. Internet users with broadband access have higher levels of satisfaction than those using a dial-up connection.

Overall levels of switching remain broadly similar to 2004 – however, a significant minority of mobile customers regularly check whether they are on the best deal and a quarter have changed tariff

2.26 With the exception of an increase in switching in the landline market, the proportion of consumers who have changed supplier for communications services remain broadly similar to 2004. There were some differences in switching levels across the UK with lower switching in internet noted in Scotland and Wales. While consumers in Wales are more likely than average to have switched their landline supplier this is lower than average in Northern Ireland. A minority of consumers across the UK within each of these markets consider the switching process difficult.

2.27 Around four in ten mobile customers say they check whether they are on the best tariff or deal for them. This behaviour is largely driven by contract customers, higher spenders and those who say they keep themselves informed. Just over a quarter of mobile customers say they have changed to what they consider to be a better deal for them - again behaviour driven by contract mobile customers.

Digital switchover – an increase in awareness and understanding but older people and those in low income households continue to lag behind

2.28 Overall awareness and understanding of 'digital switchover' has increased significantly across all groups of interest since the 2004 study, but remains lower amongst older people aged 65+, and those in low income households.

2.29 There are higher than average levels of understanding of the switchover in Wales and Scotland. While consumers in Northern Ireland have average levels of awareness this is significantly higher amongst those with DTV at home and in fact Northern Ireland reports the highest levels of understanding amongst DTV owners across the UK.

2.30 While it appears that this improvement in understanding has led to an increase in positive perceptions, a significant proportion of residential consumers still don't know enough about digital switchover to have an opinion either way.

Executive summary – small businesses and sole traders

2.31 The Consumer Panel conducted research amongst small businesses (1-10 employees) and sole traders in order to understand their experience of telecommunications (fixed and mobile), the internet (including broadband) – including digital switchover – and use of technology.

2.32 This report identifies the current level of consumer knowledge regarding what is going on in the communications market and explores the current consumer experience in the communications market. As this is the second annual survey it also identifies the trends compared to the 2004 research.

Similar to residential consumers, small businesses are less aware of the technical terms for communications services than they are of the types of services available – e.g. wireless internet connection

2.33 As in the 2004 study, 'broadband' is the only one of the four communications services terms (broadband, 3G, Wi-Fi, VoIP) which has a reasonable level of understanding amongst small businesses; with understanding of this service also showing a significant improvement since the 2004 study. However, while majority of small businesses have not heard the term '3G', there has been a significant increase in both awareness and understanding of the term this year.

2.34 Similar to residential consumers, small businesses are more likely to be aware of the capability of these services than to know and understand their technical terms. For example, awareness of Wi-Fi and VoIP services increases significantly on describing the capability of each service to small businesses.

More small businesses say they keep informed now than in 2004 – however, levels are still below half of all small businesses

2.35 The proportion of small businesses keeping themselves informed about new developments regarding making calls from business landlines, mobile phone technology or ways of connecting to the internet has increased significantly this year, but still remains below half of all small businesses.

2.36 Suppliers and stores were the most popular source of information for small businesses in 2004 however, this position is now shared with 'friends and family'. As in the 2004 survey, those who keep themselves informed of communications services developments are considerably more likely to say they would refer to on-line sources.

Overall take-up of communications remains broadly unchanged with the exception of broadband. Sole traders continue to rely more heavily on mobiles

2.37 Similar to residential consumers, internet ownership has remained virtually unchanged since the 2004 survey while broadband access has increased significantly amongst small businesses; with this increase driven by the largest businesses (with 6-10 employees).

2.38 Overall levels of ownership of landline and mobile remain broadly unchanged since 2004 with lower landline ownership amongst sole traders. There has been a significant rise in mobile ownership amongst mid-size small businesses and a slight shift towards using mobiles with business payment plans, although the proportion using prepay or personal contracts for their business phone equates to almost two in five small businesses.

2.39 Involuntary exclusion from communications technology amongst small businesses remains at negligible levels.

Broadband users make wider use of the internet – notably for downloading, purchasing, banking and home-working

2.40 Small businesses with a broadband connection make a broader use of the internet; most notably finding and downloading information for work, purchasing goods and services, banking, and home working.

2.41 Business mobile phone use is limited in breadth; with around one in four with business mobile phones using the phones for anything beyond calls and texts. There are indications of a fall in spend on mobiles since 2004.

Small businesses are less likely to consider they are getting ‘good value’ from their mobile service than last year and show higher levels of dissatisfaction

2.42 Landline phones and mobile phones are considered essential by significantly higher proportions than consider internet access to be essential; with no significant changes since 2004.

2.43 A clear majority of non-owners do not see a benefit in owning a mobile phone or getting internet access. Significantly higher ratings for potential benefit are given regarding owning a mobile phone for the business; and this appears to be more common amongst sole traders and those who do not have business premises.

2.44 Around a quarter of small businesses in each market expressed worries or concerns – these levels are not significantly different to 2004. The key concerns relate to cost in the telecoms markets (landline and mobile) and security in internet – broadly similar to residential consumers although unsolicited calls does not appear to be a top of mind concern for small businesses.

2.45 The proportion of small businesses that consider they are receiving ‘good value’ from their internet and mobile services has declined this year. However, this is largely due to increased neutral ratings as opposed to increased negative opinions.

2.46 Small businesses are more dissatisfied with their communications services than residential consumers, with a quarter showing any dissatisfaction for landline and internet services and a third showing dissatisfaction in the mobile market.

2.47 Dissatisfaction in the mobile market has increased significantly since 2004, driven largely by a fall in satisfaction that suppliers are making sure they are on the best deal. This is consistent with the fall in the proportion of small businesses with mobiles rating them as providing ‘good value’.

Switching behaviour broadly similar to the residential market – mobile tariff checking is more common amongst those who keep informed

2.48 Switching levels for small businesses are broadly similar to in the residential market, although lower for mobile. The internet is the only market with increased levels of switching amongst small businesses since 2004.

2.49 Similar to residential consumers, around two in five small businesses with mobiles say they check whether they are on the most suitable tariff for them. This behaviour is more common amongst businesses who say they keep informed and those using contract mobile phones.

Is there a consumer knowledge gap?

Introduction

3.1 This section examines consumers' awareness and understanding of five communications services terms, and how levels of awareness and understanding compare to those from the 2004 study. We look at whether consumers keep informed about the four key platforms of landline and mobile phone, television, and the internet, and which groups of consumers are less likely to keep informed. We also examine the sources of information consumers would turn to for advice or information regarding communications services.

Summary

3.2 Each of the terms 'broadband', 'digital TV' and '3G' see significant increases in awareness and understanding since the 2004 study. However, it is still the case that the majority of consumers are unaware of the term '3G' and fewer than half of all consumers understand the term 'DAB digital radio'. Awareness of 'VoIP (Voice over Internet Protocol)' is lowest of all the communications terms; with one in six consumers having heard this term and one in ten understanding what the term refers to.

3.3 Consumers are more likely to be aware of the capability of services than they are to know and understand the technical terms for these. For example, awareness of 3G and VoIP services increases significantly on describing the capability of each service to consumers.

3.4 There has been no change in the proportion of consumers who keep informed of developments in communications (46%). Interest appears highest for mobile services and lowest in the landline market. Age continues to be a significant factor when analysing which consumers are most likely to keep informed about developments in communications markets. Younger consumers remain significantly more likely to say they keep informed than older consumers. However, while consumers aged 65+ continue to be least likely to keep informed, this is less evident than in 2004 with around a quarter now saying they keep informed about developments, compared with a fifth in 2004.

3.5 The continued growth in adoption of broadband and digital TV is having a positive impact on learning about these technologies from other consumers. More dial-up users now know someone with broadband access who could show them how it works, and more consumers without digital TV now know someone with the service who could show them how it works.

3.6 Friends and family members continue to be the most popular top of mind source of information for UK consumers. However, it is important to at least consider where 'friends and family' might be obtaining their advice when analysing importance of other sources. The internet has become increasingly important as a source of information – particularly amongst consumers who say they keep informed.

Technical terms for communications services – consumer awareness

3.7 The residential consumers interviewed for this study were asked to look at a card which showed the names of five communications services terms, and then say which of these they had heard of. For each of the five terms consumers said they had heard of, they were then asked if they could describe to a friend what it meant, and how they would describe it to them. Those who had not heard of a particular term were prompted with a description of the service and then asked whether they had previously been aware of that service.

3.8 Figure 4 below categorises responses for each of the five terms relating to communications services covered by the survey. Where possible responses are shown for the 2005 and 2004 surveys[4]. The sections shown in green to the right of the vertical line indicate those who understand the term through being able to provide a good description. Those shown in amber immediately to the left of the vertical line are aware of the term but (mostly) don't know what it means or (rarely) provide a poor description. The shaded red section indicates the proportions of consumers who have heard of the term but provide an incorrect description, which were small in comparison. Finally, the solid red section to the far left indicates those who have never heard the term in question.

3.9 Almost all residential consumers are aware of the terms 'digital TV' (95%) and 'broadband' (94%), and over half are aware of the term 'DAB digital radio' (63%). Consumers are least aware of the terms '3G' (45%) and 'VoIP (Voice over Internet Protocol)' (16%); with fewer than half of all consumers having heard of these terms.

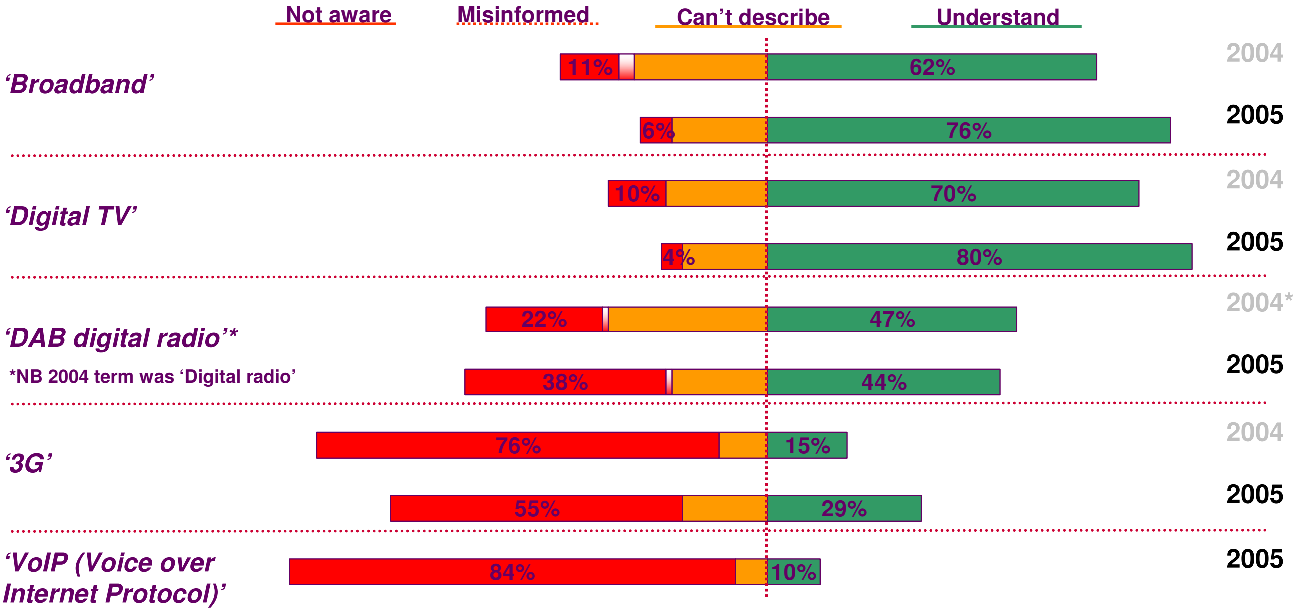
3.10 As shown in figure 4, awareness of the terms 'broadband', 'digital TV' and '3G' has increased significantly since the 2004 study. Whereas around nine in ten consumers were aware of the terms broadband and digital TV in the 2004 study, the 2005 study sees 19 out of 20 consumers aware of these terms. Whilst just under half of consumers are aware of the term '3G', this still represents a significant increase compared to the 2004 measure of one in four.

3.11 There has also been a significant rise in the proportion of consumers with dial-up internet at home who are aware that broadband is available in their area – rising from 54% to 82% in 2005.

[4] 'VoIP (Voice over Internet Protocol)' was not assessed in the 2004 survey. Please note, whilst the 2004 survey assessed awareness and understanding of the term 'Digital radio', the term used in the 2005 survey was 'DAB digital radio'.

Figure 4. Awareness and understanding of communication services terms[5]

Q. Which of the terms on this card relating to communication services had you heard of before today? [FOR EACH HAD HEARD OF] Could you describe what '[SERVICE]' is to a friend? How would you describe what it is or what it can do?



Technical terms for communications services – consumer understanding

3.12 As well as the majority of residential consumers having heard of the terms 'broadband' and 'digital TV', around four-fifths of consumers understand each of these two terms through being able to give a good description of what the term means.

3.13 For 'DAB digital radio', whilst most residential consumers have heard of this term, fewer than half understand what it means. Fewer than one in three consumers understand the term '3G'. 'VoIP (or Voice over Internet Protocol)' is a term known to fewer than one in five residential consumers, and understood by around one in ten.

3.14 As shown above there have been significant increases in understanding for the terms 'broadband', 'digital TV' and '3G'. Figure 5 indicates levels of understanding for these three terms by nation and across the groups of interest to the Consumer Panel. Levels of understanding from the 2004 study and the 2005 study are shown. Where this change between surveys is statistically significant, the % for 2005 is shown in **green bold text.**

[5] Base: All respondents (2689 UK adults). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

Figure 5. Understanding of communications services terms and change 2004-2005[6]

Q. [FOR EACH TERM HAD HEARD OF] Could you describe what '[SERVICE]' is to a friend? How would you describe what it is or what it can do?

		All UK (2689)	England (1507)	Scotland (460)	Wales (366)	Northern Ireland (356)
Broadband	2004	62%	62%	66%	56%	61%
	2005	**76%**	**77%**	**73%**	**71%**	65%
Digital TV	2004	70%	69%	81%	74%	60%
	2005	**80%**	**80%**	80%	74%	**78%**
3G	2004	15%	15%	18%	9%	5%
	2005	**29%**	**29%**	**33%**	**25%**	**39%**

		All UK (2689)	Rural (266)	Dense urban (462)	Low income aged under 65 (756)	People with a disability aged under 65 (465)	Older people aged 65 and over (463)
Broadband	2004	62%	64%	63%	54%	55%	21%
	2005	**76%**	**70%**	**75%**	**72%**	**71%**	**39%**
Digital TV	2004	70%	73%	71%	69%	67%	40%
	2005	**80%**	77%	**79%**	**78%**	**72%**	**60%**
3G	2004	15%	11%	18%	15%	5%	2%
	2005	**29%**	**27%**	**33%**	**29%**	**22%**	5%

3.15 For broadband, the greatest increases in understanding of this term appear to be amongst those in England and Wales; increasing 15 percentage points each. Those aged under 65 in low income households or with a disability, plus those aged 65 and over also see higher levels of understanding the term 'broadband' compared to 2004.

3.16 For digital TV and 3G, Northern Ireland sees the greatest shift in understanding across the nations. Again greater increases in understanding of 3G appear to be amongst those aged under 65 in low income households or with a disability, plus those aged 65 and over.

3.17 In the Digital Switchover section of this report we also see that awareness and understanding of the term 'digital switchover' has increased significantly since the 2004 study.

Overall awareness of communications services

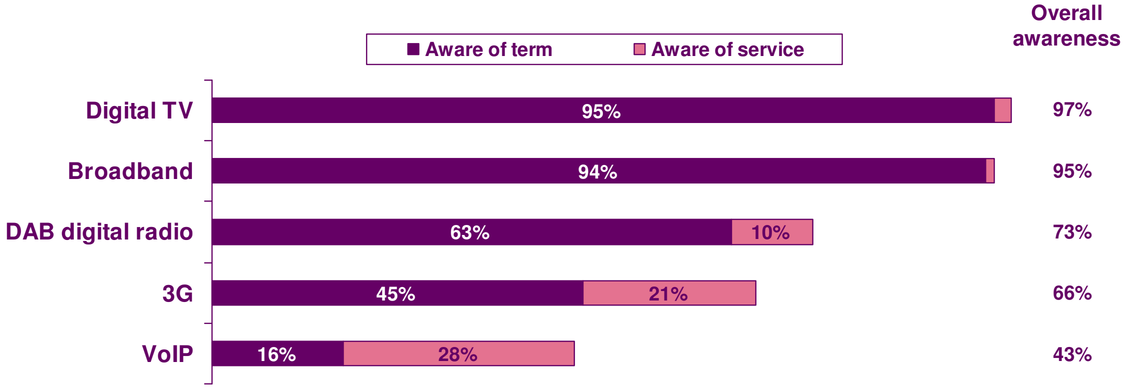
3.18 For the 2005 survey those who were not aware of each term were read a description of the service or device. By combining those who are aware of the term with those who are aware of the service when it is described to them we are able to look at a measure of overall awareness for each of the services covered by the study.

[6] 'Understanding' defined as those who are aware of a communications term and are able to describe what it is/ what it does

3.19 Compared to the levels of consumer awareness of the communications terms alone, significantly more consumers are aware of the capability of DAB digital radio, 3G and VoIP services once they are read an explanation of what these services provide. This is illustrated in figure 6 below, which shows the proportion of consumers aware of the terms plus the proportion who recognised the description of the service.

3.20 Given that the majority of consumers were already aware of digital TV and broadband overall, awareness of these two technologies does not change significantly. However, overall awareness of DAB digital radio rises by 10 percentage points to 73%. In addition to the 45% of adults aware of the term '3G' a further 21% are aware of the capability of 3G services taking overall awareness of this service to two-thirds (66%), and overall awareness of VoIP rises from 16% to just below half of all consumers (43%).

Figure 6. Impact of describing the service to consumers[7]



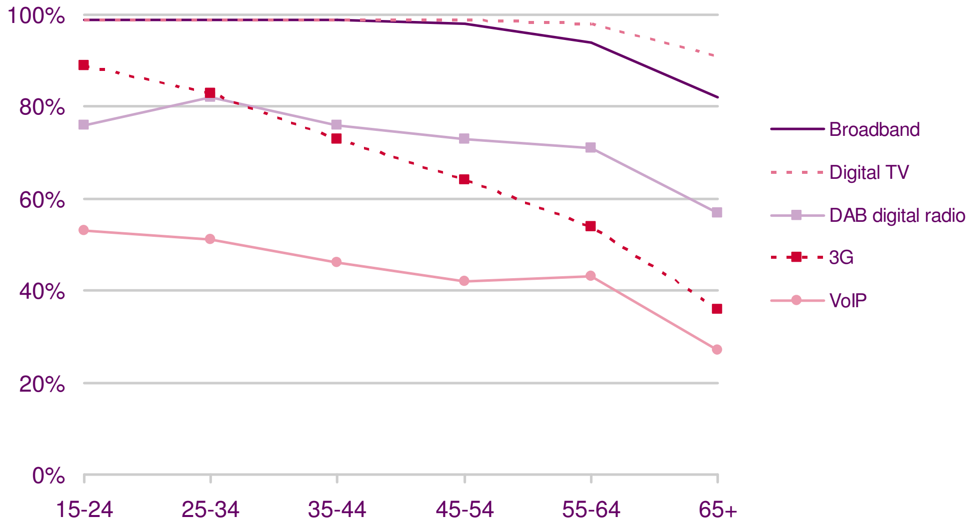
3.21 Figure 7 indicates these levels of overall awareness across consumers in each of seven age categories.

3.22 Overall awareness of broadband starts to decline from aged 45, but falls more sharply at age 65 and over. Overall awareness of digital TV is at very similar levels across the age groups until age 55 when it starts to decline. Overall awareness of DAB digital radio peaks at age 25, then declines gradually until age 65 when the decline is most sharp. Overall awareness of 3G is highest for the youngest adults, aged 15-24, and then declines steadily with each subsequent age category. Overall awareness of VoIP shows a steady decline through the age groups until age 65, when the decline is sharp.

[7] Base: All respondents (2689 UK adults). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

Figure 7. Overall awareness of communications services terms by age[8][9]

Q. Which of the terms on this card relating to communications services had you heard of before today? Before now, were you aware of the service [DESCRIPTION OF SERVICE]?



3.23 Whilst we can look at variations in overall awareness as a continuum when making comparisons across different age groups, another approach is necessary when making comparisons by nation and by the groups of interest to the Consumer Panel. To clearly identify where knowledge gaps exist figure 8 details relative levels of overall awareness for each of the five terms across each of the four nations.

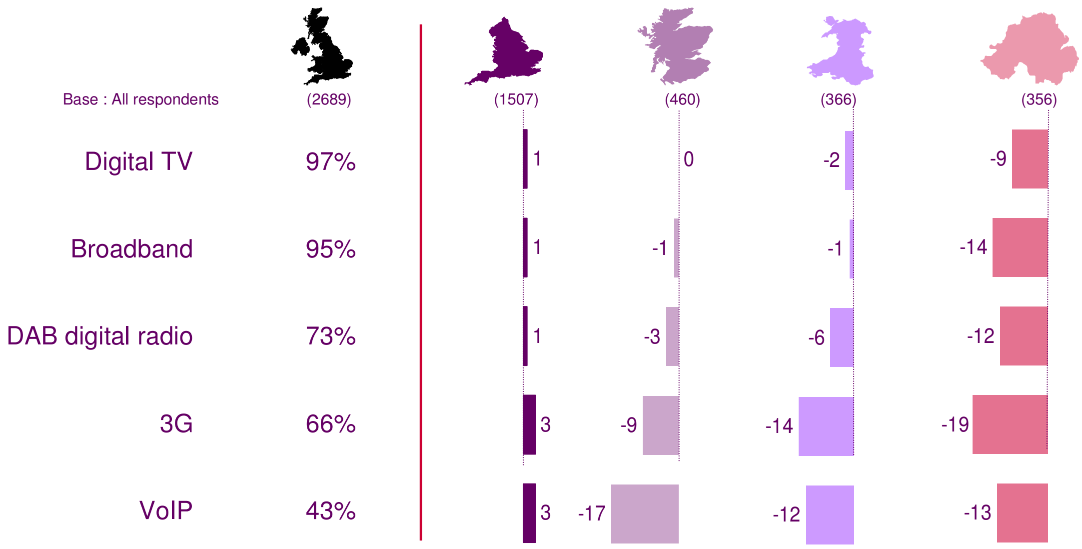
3.24 For example, 66% of consumers across the UK are aware of 3G services, for England the measure is 69%, 57% in Scotland, 52% in Wales and 47% in Northern Ireland. As mentioned earlier, findings for England will always be close to the findings for the UK as a whole due to the size of the population of England relative to the other three nations.

[8] 'Overall awareness' defined as those who have heard of a communications term or who recognise the device/ service once it is described to them

[9] Base: All respondents (2689 UK adults). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

Figure 8. Overall awareness of communications services by nation[10]

Q. Which of the terms on this card relating to communications services had you heard of before today? Before now, were you aware of the service [DESCRIPTION OF SERVICE]?



3.25 For digital TV, broadband and DAB digital radio, levels of overall awareness do not differ significantly across England, Scotland and Wales. Awareness of 3G and VoIP services is significantly lower in Scotland and Wales compared to the UK overall. In Northern Ireland awareness of each of the services is significantly lower than average.

3.26 Figure 9 shows that location (in terms of living in either rural or dense urban areas) does not have a significant impact on overall awareness of communications services. Understanding of DAB digital radio is at a significantly lower level for those aged under 65 in low income households or with a disability, but levels for these demographic groups do not vary from the overall UK levels for the other communications terms.

3.27 Older people aged 65 and over are generally less likely to be aware of each of the communications services; with this shown most markedly for 3G at 30 percentage points below average.

[10] Base: All respondents (2689 UK adults). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

Figure 9. Overall awareness of communications services by groups of interest[11]

Q. Which of the terms on this card relating to communications services had you heard of before today? Before now, were you aware of the service [DESCRIPTION OF SERVICE]?

Keeping informed

3.28 Half (46%) of all consumers in 2005 (broadly similar to 49% in 2004) say they keep themselves informed about new developments for any of the following:

- Mobile phone technology, services and suppliers
- Different options and suppliers for connecting to the internet
- Ways of receiving TV channels
- Different options and suppliers for making calls from your landline at home

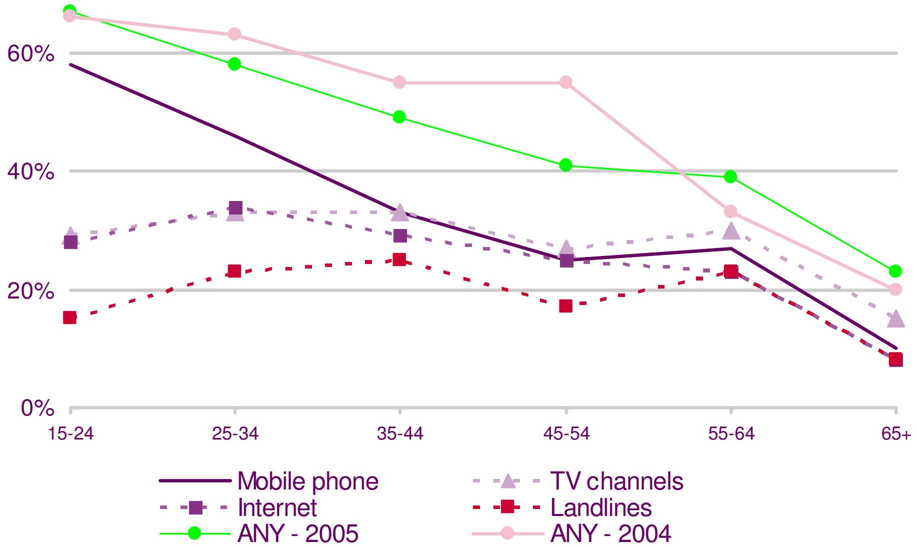
3.29 Across these four communications services covered in the survey, consumers are most likely to keep themselves informed about mobile phones (33% of all consumers), and least likely to keep themselves informed about options for making calls from their home landline (19% of all consumers). Again these findings are very similar to those from the 2004 survey. One quarter (25%) of consumers keep themselves informed about options and suppliers for connecting to the internet, and a similar proportion (28%) keep themselves informed about ways of receiving TV channels.

3.30 Keeping informed varies considerably both in terms of the type of communications service and also the age of the consumer. This is illustrated in Figure 10, which shows the incidence of those who keep themselves informed about each of the four communications services and (in green) any of these services, for each of six age categories of consumers. The solid pink line indicates the incidence of keeping information about any of these services from the 2004 survey.

[11] Base: All respondents (2689 UK adults). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

Figure 10. Keeping informed about communications services developments by age[12]

Q. Do you tend to keep yourself informed about new developments for any of these?



3.31 It is clear that keeping informed of developments regarding mobile phones is directly related to the age of the consumer; although this measure sees an increase compared to the 2004 findings for those aged between 35 and 54 in this year's survey. For the other three technologies, there is certainly a lower incidence of keeping informed amongst those aged 65 and over compared to consumers of other ages.

3.32 Of the four communications services, it is clear that mobile phones are of most interest to those aged under 35, but for each of the other age groups from 35 and older there is relatively little difference within the age group in the levels of keeping informed across the four services.

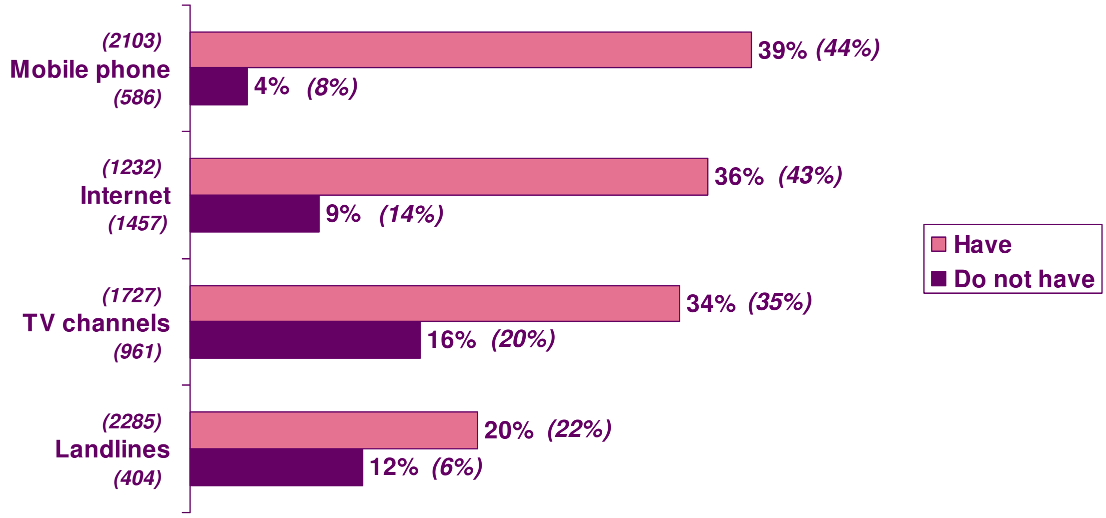
3.33 Compared to the 2004 findings (shown as the solid pink line in figure 10), the decline in keeping informed of developments across the age groups is still evident, but more gradual. This more gradual decline in keeping informed has been brought about by the fall in the proportion of those aged 45-54 who keep themselves informed (from 55% in 2004 to 41% in 2005). This fall is statistically significant overall, and is consistent across each of the four services.

3.34 Figure 11 below shows the impact of ownership of each type of communications service on keeping up with developments. The figures shown in *(brackets and in italics)* for each bar are the comparable findings from the 2004 study. As was also the case in 2004, it is clear for each of the four services that those who have the service at home are more likely to keep themselves informed about developments for that type of communications technology; with this shown most strongly for mobile phone technology. The gap in keeping informed between those with and without the service is less marked, though still significant, for keeping in touch with ways of receiving TV channels; which holds more interest for non-owners of digital TV than the other three communications services.

[12] Base: All respondents (2689 UK adults). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

Figure 11. Keeping informed about communications services developments by ownership of each type of service[13] (2004 figures show in brackets)

Q. Do you tend to keep yourself informed about new developments for any of these?



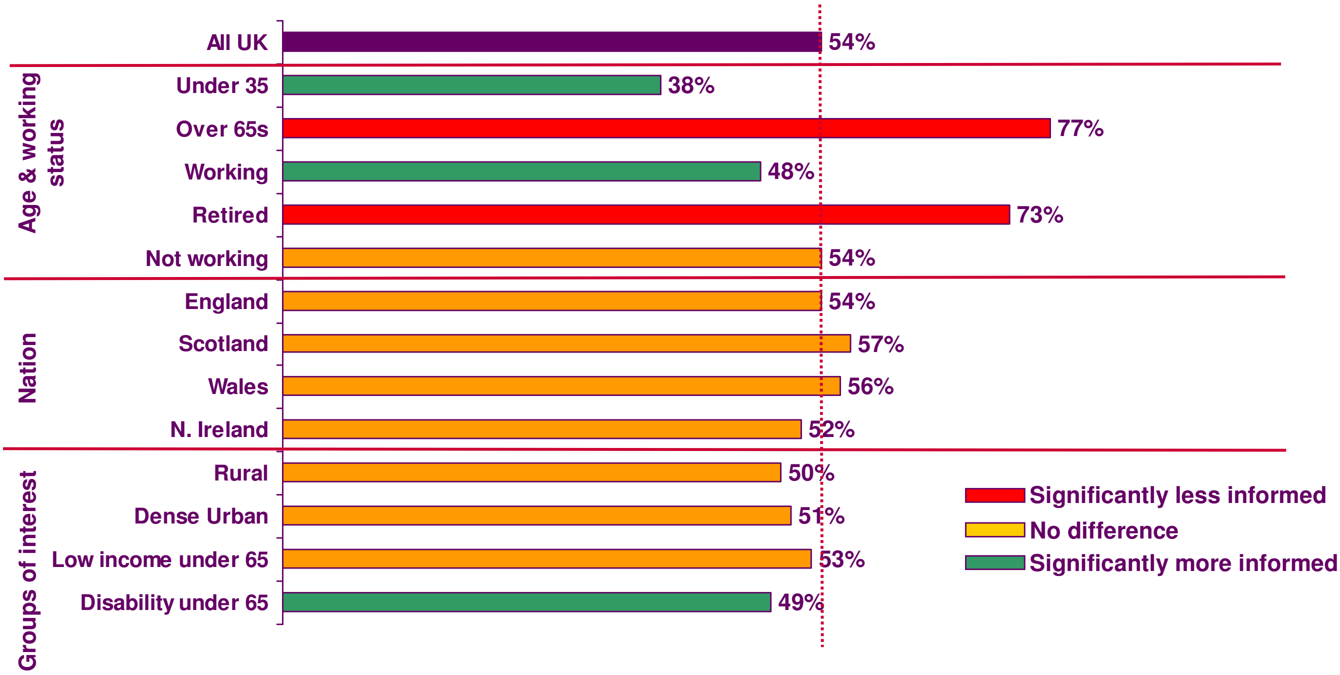
3.35 The gaps between owners and non-owners are at very similar levels to the 2004 survey. However, this year's survey sees lower incidences of mobile phone and internet owners keeping informed about these respective technologies; falling to 39% from 44% for mobile phone owners and to 36% from 43% for internet owners.

3.36 Age is the most significant factor in keeping informed about developments in communications services, and figure 12 shows the incidence of those consumers who do not keep informed. Those shown in red are significantly less informed and those shown in green are significantly more informed compared to all UK adults. Amber bars indicate no significant difference from the overall measure for UK consumers.

[13] Base: All respondents (2689 UK adults). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

Figure 12. Those who do not keep themselves informed about developments in communications services[14]

Q. Do you tend to keep yourself informed about new developments for any of these?



3.37 For the groups of interest represented by the Consumer Panel there is little variation from the measure for all UK consumers. However, older people aged 65+ are significantly less likely to keep informed. Figure 12 also shows responses for those who are working and those who are retired. Whilst those who are working are significantly more likely to keep informed, those who are retired are significantly less likely. Unlike the 2004 survey, there are no significant variations across the UK nations. Previously those in Scotland and Wales were significantly less likely to keep informed.

Learning about technology from others

3.38 Amongst those with dial-up access to the internet, there has been a significant increase in the proportion who know someone with broadband access who could show them how it works. Knowing someone with broadband internet has increased from 56% of dial-up users in the 2004 survey to 83% of dial-up users in the 2005 survey. This is unsurprising given the continued growth in broadband adoption which is discussed later in this report.

3.39 Base sizes are small, but there is an indication that younger (aged under 55) dial-up users are less likely to know a broadband user than dial-up users aged 55 and over.

3.40 There has also been an increase in those without digital TV knowing someone who has got digital TV who could show them how it works. This measure stood at 60% of those without digital TV in 2004, and has risen to 69% of those without digital TV. Knowing a digital TV owner is, however, still less common for older people aged 65 and over; at 55% of those who do not have digital TV.

[14] Base: All respondents (2689 UK adults). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

Sources of information

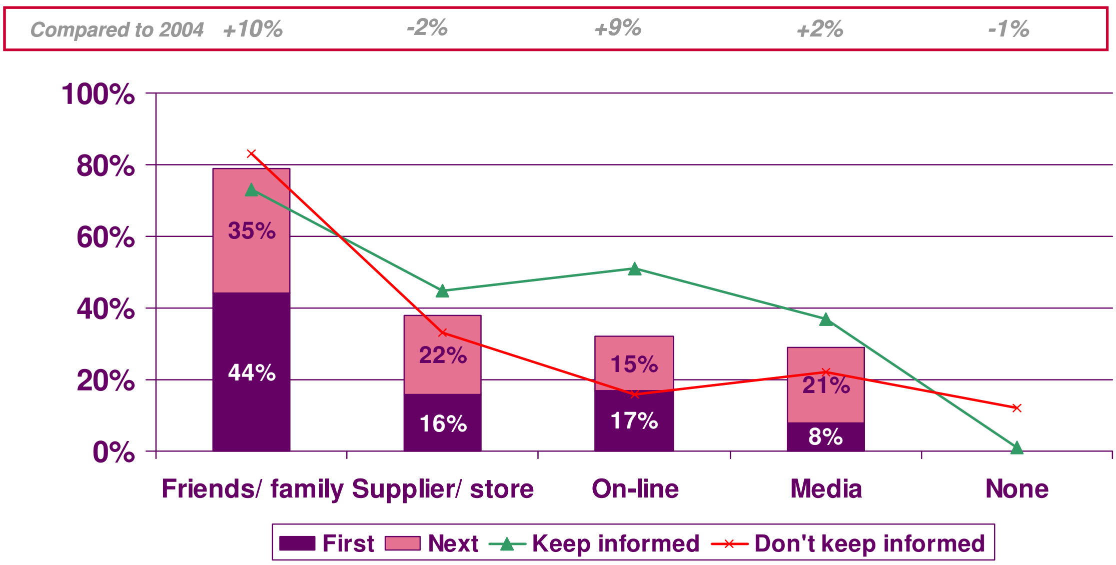
3.41 All consumers were asked to nominate without prompting where they would turn for advice or information on any of the four communications services (fixed line, mobile phone, digital TV, and internet access). Where an initial source of information was recalled, consumers were then asked where they would turn to next.

3.42 Figure 13 below shows the proportion of consumers nominating each of four sources of information, and whether each source was nominated as an initial or a secondary source. The green line indicates the responses per source given by those who keep themselves informed about developments in communications services. The red line indicates the responses per source given by those who do not keep themselves informed about developments in communications services.

3.43 Friends and family members continue to be the most popular top of mind source of information for UK consumers (shown as 'First' in figure 13). Close to half (44%) saying they would turn here first for advice or information on any communications services.

Figure 13. Where consumers would turn to for advice or information about communications services[15]

Q. If you were looking for advice or information on any of these services where would you turn to first? Then where would you turn to for advice or information on any of these services?



3.44 The next most popular top of mind source of information was previously service suppliers or stores selling the services. In this year's survey nominations for on-line information are at an equal level with suppliers or stores; with around one in six turning to either of these sources first (at 16% and 17% respectively). On-line sources are, however, considerably more popular amongst those who keep themselves informed and see higher overall levels of nominations in this year's survey. Fewer than one in ten overall say they would turn first to media sources. As was also the case in 2004, a significant minority (around one in

[15] Base: All respondents (2689 UK adults). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

five) of those who do not keep informed could not recall any sources of information on communications services and so would not know where to turn for advice. This does not vary significantly for the groups of interest covered by the survey other than older people aged 65 or over; amongst whom around one in five (19%) have no sources of information.

3.45 The horizontal bar across the top of figure 13 indicates the extent to which overall nominations from consumers for each of the four sources of information have changed since the 2004 study. The 2005 study sees a significant increase in nominations for two sources; friends and family and on-line sources. As indicated by the red and green lines shown in figure 13; friends and family are more likely to be nominated as an information source by those who do not keep themselves informed, whereas on-line sources are significantly more likely to be nominated as an information source by those who do keep themselves informed.

Ownership of communications technology

Introduction

4.1 This section examines ownership levels for the four key communications platforms covered by the study: landline phones, mobile phones, the internet (and broadband access) and digital television. Having looked at current ownership levels for each, we then examine changes in ownership levels in detail to understand which groups of consumers are driving any changes.

4.2 We then move on to understand the extent to which those who do not own a particular technology are ‘voluntarily’ or ‘involuntarily’ excluded: is this a positive choice or is it forced behaviour in some way?

Summary

4.3 While ownership levels for the internet remain virtually unchanged since the last survey, there has been a significant rise in the use of broadband to access the internet. This has been particularly notable amongst consumers in rural areas who are now as likely as average across all consumers to have broadband internet access at home.

4.4 Ownership of digital TV shows a significant increase, driven largely by Freeview. The largest increase in ownership of DTV has been amongst low income households (aged under 65) although ownership remains lower than average. Take-up of the internet, including broadband, is also lower than average amongst consumers in low income households. However, this group is amongst those most likely to access the internet outside the home.

4.5 There appears to have been a fall in use of landlines between 2004 and 2005. While Ofcom’s long term trend data is consistent with a decline in landline ownership (between 2000 and 2005) it also illustrates that landline ownership has a tendency to fluctuate across the UK between 1-2 percentage points.

4.6 The proportions of consumers who say they are excluded from communications services are broadly similar to 2004. Levels of involuntary exclusion for low income households are more than double the UK average for landline, digital TV and internet ownership.

Levels of ownership

4.7 The following section reports the current levels of ownership of each of communications services noted above at UK level and comparing ownership across each of the four nations. Generally the overall picture is broadly similar to that in Ofcom’s Nations and Regions report (based on data from Q2 and Q3 2005) however there have been some changes in ownership levels between the two surveys.

4.8 Figure 14 summarises ownership across the UK, significantly lower than average levels of ownership are indicated by downward red arrows and significantly higher than average levels of ownership are indicated by upward green arrows.

4.9 Landlines remain the most commonly and consistently used service across the UK with 88% of UK adults saying they have a landline at home. Mobile ownership is not far behind this at 81% of adults. Two thirds (66%) of adults say they have digital TV at home and 57% have home internet access, with broadband ownership at a third of UK adults.

4.10 Consumers in Scotland have significantly lower levels of ownership for landlines and internet access at home but levels of broadband ownership that are similar to the UK average.

4.11 Wales sees mixed picture, but has significantly lower levels of ownership for the internet and broadband, in contrast to higher ownership levels for digital TV compared to the other nations. Mobile and broadband ownership in Wales has increased significantly since 2004. While this still means Wales is significantly below average in terms of broadband ownership, penetration of mobile phones is now broadly similar to the rest of the UK[16].

4.12 Northern Ireland differs the most from the UK picture in terms of significantly lower levels of ownership for digital TV, the internet and broadband. This overall picture is consistent with that published in Ofcom's Nations and Regions report. This report identifies that lower ownership of services is at least partly related to the profile of adults living in this nation – tending to be younger and skewed towards C2DE social grades[17].

Figure 14. Ownership of communications services by nation[18]

Q. Do you have a landline phone in your home that you're able to use to make and receive calls? Q. Do you personally use a mobile phone? Q. Does your household have any TV sets that receive additional channels other than BBC, ITV, Channel 4 and (where available) Channel 5? Q. Does your household have access to the internet/ World Wide Web? Q. Do you use a broadband internet connection at home?

	UK TOTAL (2689)	England (1507)	Scotland (460)	Wales (366)	Northern Ireland (356)
Landline at home	88%	=	-5	-1	+1
Personal use of mobile	81%	+1	-3	+3	-4
Digital TV at home	66%	+1	-4	+4	-11
Internet access at home	57%	+1	-6	-8	-9
Broadband internet access at home	35%	=	-4	-8	-10

[16] Ofcom's Communications Market: 'Nations and regions' report indicates lower than average mobile ownership in Wales during Q2-Q3 2005.Ofcom's residential tracking survey for Q4 2005 indicates a significant rise in mobile and broadband ownership in Wales which is consistent with findings from this survey.
[17] http://www.ofcom.org.uk/research/cm/nations/
[18] Base: All respondents (2689 UK adults, 1507 England, 460 Scotland, 366 Wales, 356 Northern Ireland). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

4.13 Figure 15 shows relative ownership levels for each of the groups of interest to the Consumer Panel compared to the UK as a whole.

4.14 As in the 2004 survey, the only groups which stand out in terms of significantly lower levels of ownership are those in low income households aged under 65 (except for mobile phones) and older people aged 65 and over (except for landlines).

4.15 Significantly higher ownership is noted for landlines amongst older consumers, digital TV amongst people with a disability (aged under 65) and internet in rural areas. Ofcom's Nations and Regions report shows that during Q2-Q3 2005 broadband ownership was lower than average in rural parts of the UK. Interestingly this study (conducted in October 2005) indicates that ownership is now broadly similar to the UK average, suggesting a rise in broadband take-up in rural areas towards the end of 2005. Ofcom's tracking data conducted in Q4 2005 supports this finding.

Figure 15. Ownership of communications services by groups of interest[19]

Q. Do you have a landline phone in your home that you're able to use to make and receive calls? Q. Do you personally use a mobile phone? Q. Does your household have any TV sets that receive additional channels other than BBC, ITV, Channel 4 and (where available) Channel 5? Q. Does your household have access to the internet/ World Wide Web? Q. Do you use a broadband internet connection at home?

	UK TOTAL	Rural (266)	Dense urban (462)	Low income Under 65 (756)	Those with a disability Under 65 (465)	Older people aged 65+ (463)
Landline at home	88%	+3	-4	-16	-1	+8
Personal use of mobile	81%	=	-1	+3	-2	-34
Digital TV at home	66%	+2	-1	-5	+5	-22
Internet access at home	57%	+9	-4	-17	-1	-29
Broadband internet access at home	35%	=	-1	-12	+1	-26

Changes in ownership

4.16 The following sections look at changes in levels of ownership for the four key communications platforms plus broadband access; starting with landline ownership.

[19] Base: All respondents (2689 UK adults, other base sizes as shown in figure 14). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

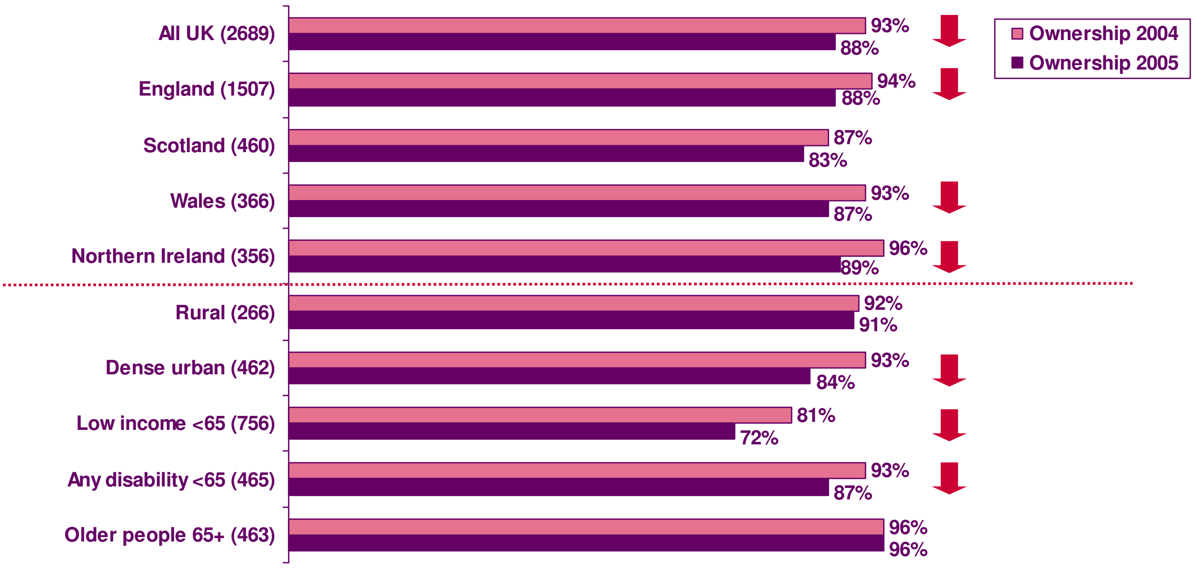
Landline ownership

4.17 There is an indication that landline ownership has decreased significantly; from 93% of consumers in 2004 to 88% in the 2005 survey. Ownership levels from the 2004 and 2005 surveys are indicated in figure 16, with arrows to indicate any significant changes in landline phone ownership levels for the UK as a whole, the UK nations, and the groups of interest to the Consumer Panel.

4.18 The indication of a decline in landline ownership does not differ to any extent by nation except in Scotland where landline ownership has remained stable. A significant decrease in landline ownership appears to be most evident for those in dense urban areas and those under 65's in low income households. Ofcom's longer term trend data is consistent with a decline in landline ownership (between 2000 and 2005) however home phone ownership is known to fluctuate across the UK between 1-2 percentage points. These fluctuations should be borne in mind when analysing this recent decline.

Figure 16. Ownership of landline phone 2004-2005

Q. Do you have a landline phone in your home that you're able to use to make and receive calls?



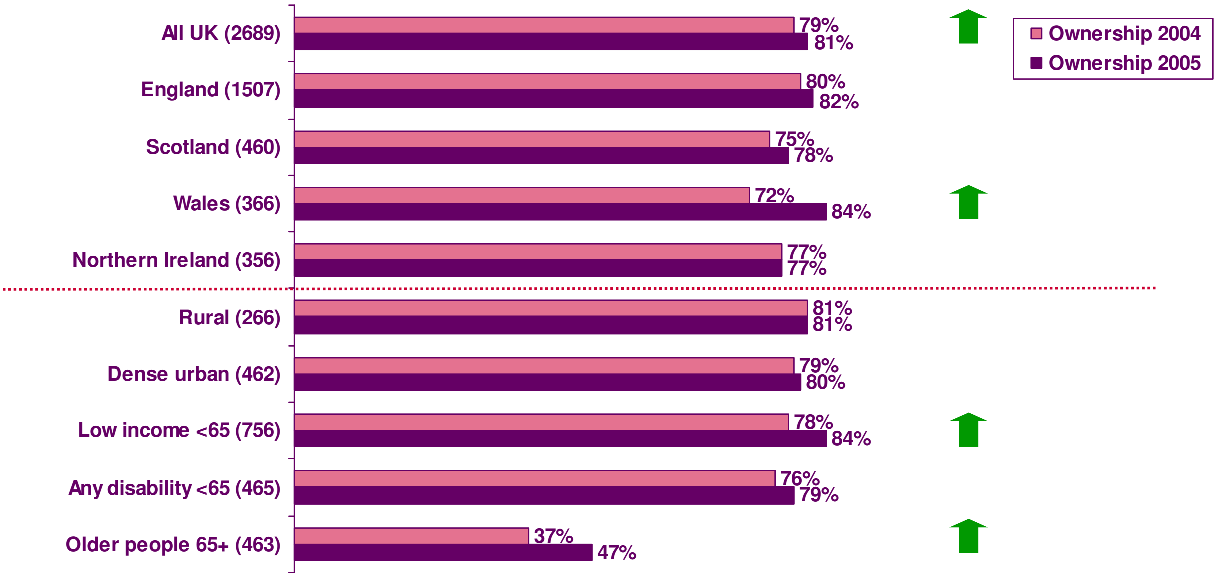
Mobile ownership (including mobile-only ownership)

4.19 At a UK level ownership levels for mobile phones has risen significantly since the 2004 survey; to 81% of consumers. The type of mobile phone service remains unchanged; with around two-thirds of mobile phone owners using pay as you go rather than a contract mobile phone service. Ownership levels from the 2004 and 2005 surveys are indicated in figure 17, with arrows to indicate any significant changes in mobile phone ownership levels for the UK as a whole, the UK nations, and the groups of interest to the Consumer Panel.

4.20 In addition to the increase in ownership of mobile phones across all consumers, we can see significant increases in ownership for those in Wales, under 65's in low income households and also for older people aged 65+.

Figure 17. Ownership of mobile phone 2004-2005

Q. Do you personally use a mobile phone?



4.21 The decrease in landline ownership (even if only temporary) has created a significant shift towards consumers only owning a mobile phone, with no landline. This measure stood at 6% in the 2004 survey, and has risen to 11% in the 2005 survey. Owning a mobile phone and not owning a landline phone was higher than average in the 2004 study amongst those in low income households aged under 65; with this accounting for 16% of these consumers. Only owning a mobile phone appears to have risen in this year's survey to account for 26% of those in low income households aged under 65.

4.22 Other than household income, only owning a mobile phone is also higher than average amongst:

- 15-24s (21%)
- Dense urban locations (14%)
- Using pay as you go (16%)
- Not working (17%)

4.23 It appears therefore that one in six of those consumers who use the pay as you go/ prepaid options rather than monthly contracts for their mobile phone have a higher dependence on their mobile phone through not having a landline at home. The pay as you go method of payment can, however, be less cost effective than a monthly contract when the phone is used more heavily. The most common reason given by all consumers using pay as you go to pay for calls made using their mobile phone is 'to manage or control how much they spend'. This response is more common still amongst pay as you go users in low income households, under 35s, and those who are not working. Interestingly, and covered in more detail later in this report, a higher proportion of pay as you go users consider they get 'good value' (78%) compared to those using contract mobiles (63%).

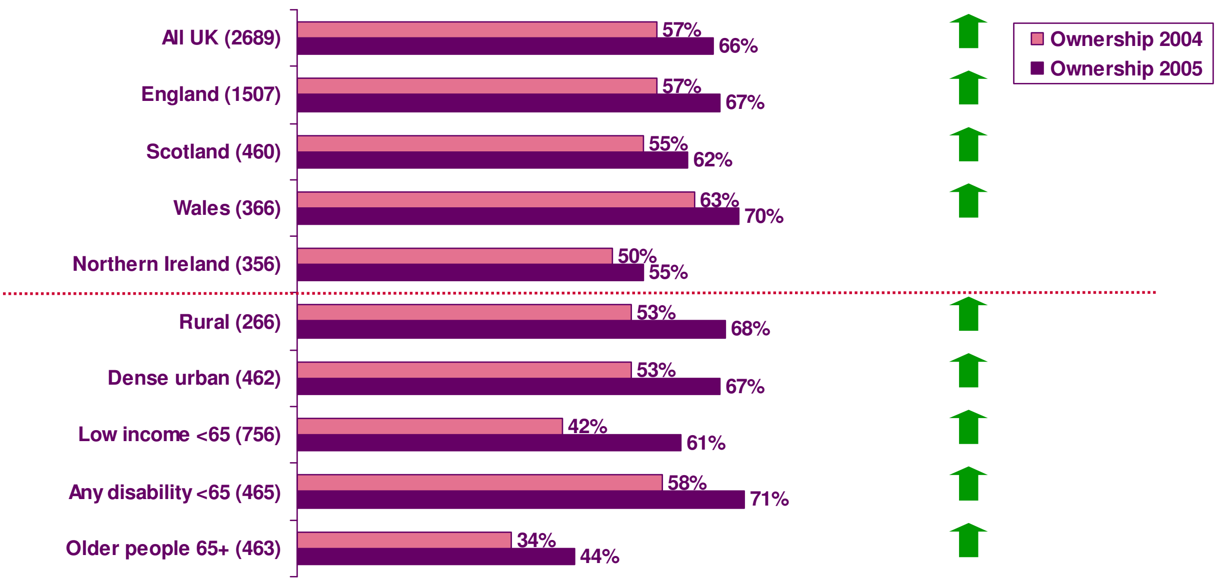
Digital TV ownership

4.24 Ownership of digital TV also sees a significant increase; from 56% of consumers in 2004 to 66% of consumers in the 2005 survey. Much of this increase is accounted for by a significant rise in consumers accessing digital TV through Freeview; which now accounts for one third of digital TV users compared to one fifth in the 2004 survey. Again this rise is supported by Ofcom research, and in fact Ofcom's Communications Market: Digital Progress Report indicates that ownership has continued to rise and stood at 70% at the end of 2005.

4.25 Ownership levels from the 2004 and 2005 surveys are indicated in figure 18, with arrows to indicate any significant changes in digital TV ownership levels for the UK as a whole, the UK nations, and the groups of interest to the Consumer Panel. England, Scotland and Wales see significant increases in digital TV ownership, and the same is true for all groups of interest to the Consumer Panel; with the greatest increase since 2004 amongst under 65's in low income households.

Figure 18. Ownership of digital TV 2004-2005

Q. Does your household have any TV sets that receive additional channels other than BBC, ITV, Channel 4 and (where available) Channel 5?



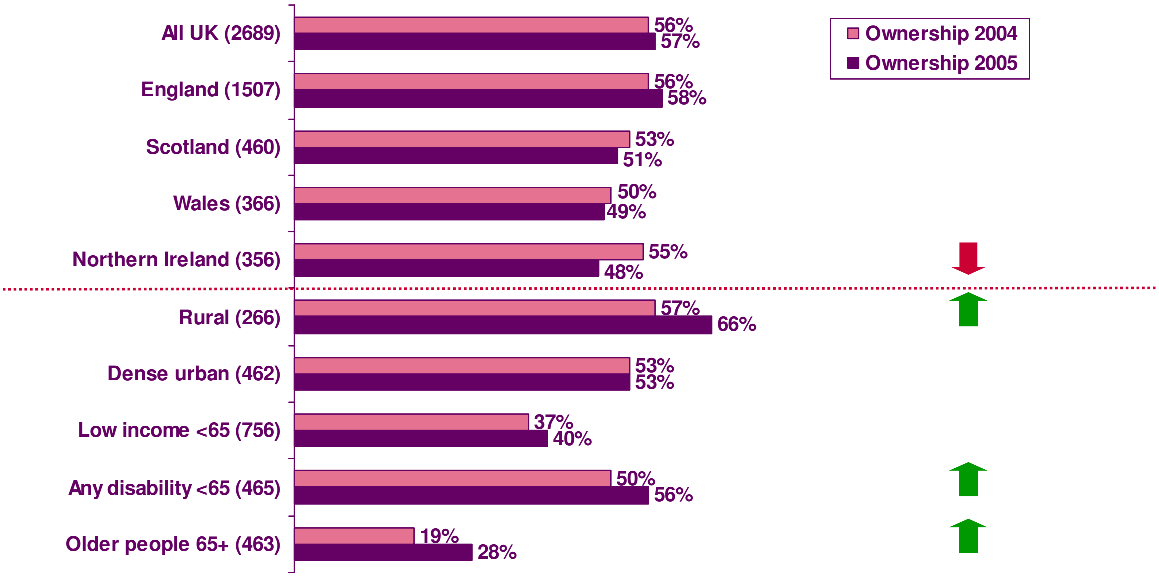
Internet ownership and use

4.26 Ownership levels for the internet have not changed significantly since the 2004 survey; at 57% of consumers from 56% in 2004. Across the UK, 62% of adults have a PC or laptop at home; and so the gap between PC/ laptop access and internet access at home is currently 5%.

4.27 None of the nations see a significant change in internet ownership overall, but there appears to be a higher than average increase in internet ownership for those in rural areas, those aged under 65 with any disability, and those aged over 65. Ownership levels from the 2004 and 2005 surveys are indicated in figure 19, with arrows to indicate any significant changes in internet ownership levels for the UK as a whole, the UK nations, and the groups of interest to the Consumer Panel.

Figure 19. Ownership of internet 2004-2005

Q. Does your household have access to the internet/ World Wide Web?



4.28 Around one in ten (11%) UK adults access the internet from elsewhere but do not have access from home. This is more common amongst those in low income households, those in dense urban areas, younger adults (aged under 35), and in particular those who do not have a landline at home. Further information on internet use outside the home is contained in the Voluntary and Involuntary Exclusion sub-section of this report.

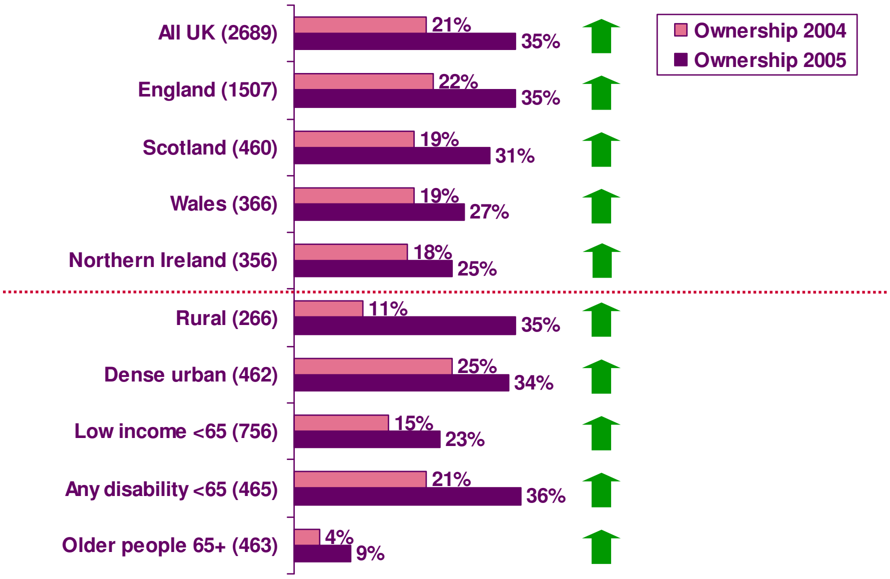
Broadband ownership

4.29 While the proportion of households with internet remains unchanged, there has been a significant increase in broadband ownership at home; standing at 35% of all consumers and 61% of those with internet access. The comparable measures for broadband from the 2004 survey were 21% of all consumers and 38% of those with internet access. Ownership levels from the 2004 and 2005 surveys are indicated in figure 20, with arrows to indicate any significant changes in internet ownership levels for the UK as a whole, the UK nations, and the groups of interest to the Consumer Panel. Please note that the figures shown relate to all consumers in each group.

4.30 As shown in figure 20, each of the nations and each of the groups of interest see significant increases in broadband ownership. All nations other than England see a below average (though still significant) increase in take-up, but amongst the groups of interest there have been greater increases within rural areas and under 65's with a disability.

Figure 20. Ownership of broadband 2004-2005

Q. Do you use a broadband internet connection at home?



4.31 The increase in take-up of broadband has led to a considerable change in the profile of broadband owners. In the 2004 survey just one quarter of broadband owners were aged 45 or over, but this age group now accounts for one-third of all broadband owners. The increasing availability of broadband for rural consumers is also evident; with over half of those in rural areas with internet access using a broadband connection, compared to one in five in the 2004 survey.

4.32 Furthermore, of those with dial-up access, two in five state that having broadband access would be a benefit to them. An additional one in ten, however, are unsure as to whether there would be a benefit, with the remaining half of dial-up users not seeing a benefit of broadband access. Further information on perceived benefits of each of these technologies is contained in the Attitudes towards Communications section of this report.

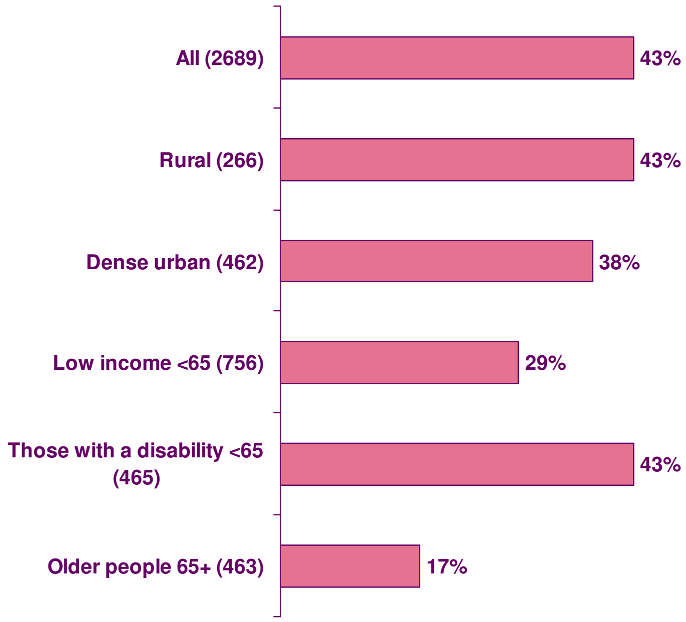
Multiple platform ownership

4.33 Four key platforms form the focus for understanding ownership for this study: landline phone, mobile phone, internet access and multi-channel TV service. For the 2005 study, two in five consumers (42%) own all four of these platforms. Ownership of all four of the platforms covered by the study is significantly less common amongst those living outside of England, those aged under 65 in low income households, those aged 65 and over, and those who are not working or are retired. Few consumers (15%) own just one of the four platforms; with this most often applying to those who only have a landline and none of the other services/ devices.

4.34 Of more interest going forward is multiple platform ownership for the digital platforms covered by the study; namely mobile phone, internet access and multi-channel TV services. Again, two in five consumers (43%) own all three digital platforms. This figure is very similar to that found on Ofcom's recently published Communications Market Report: Nations and regions (39%). Figure 21 below indicates the extent of multiple digital platform ownership by the groups of interest to the Consumer Panel.

Figure 21. Ownership of all three digital platforms (mobile, internet and digital TV) - by groups of interest

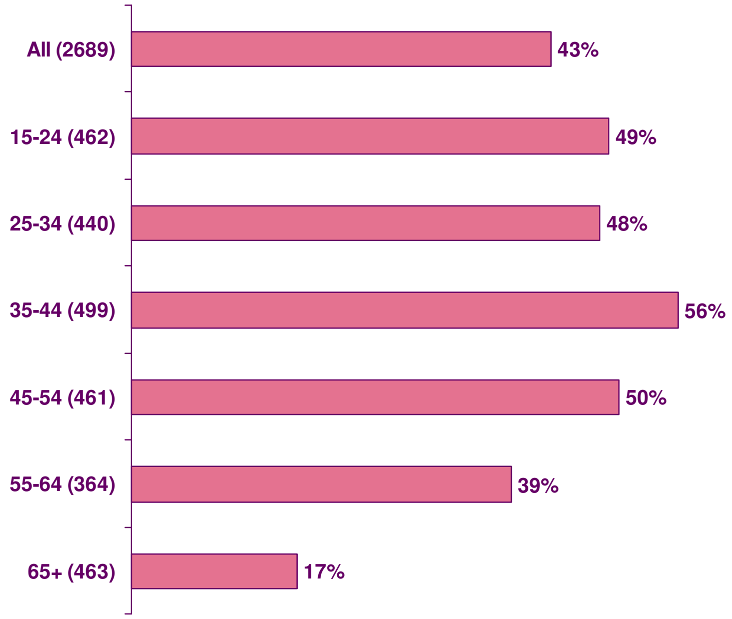
Q. Do you personally use a mobile phone? Q. Does your household have any TV sets that receive additional channels other than BBC, ITV, Channel 4 and (where available) Channel 5? Q. Does your household have access to the internet/ World Wide Web? Q. Do you use a broadband internet connection at home?



4.35 Owning all three digital platforms is not higher than the UK average amongst any of the groups shown in figure 21, but is significantly lower amongst those aged under 65 in low income households and those aged 65 and over. The age of the consumer is a key indicator of multiple digital platform ownership, as shown in figure 22 below, which looks at those who own all three platforms by the age of the consumer.

Figure 22. Ownership of all three digital platforms (mobile, internet and digital TV) – by age

Q. Do you personally use a mobile phone? Q. Does your household have any TV sets that receive additional channels other than BBC, ITV, Channel 4 and (where available) Channel 5? Q. Does your household have access to the internet/ World Wide Web? Q. Do you use a broadband internet connection at home?



4.36 As shown in figure 22, all age groups under 55 years old are significantly more likely to own all three digital platforms, with significantly lower levels of ownership amongst those aged 65 and over as detailed previously.

Voluntary and involuntary exclusion

4.37 The survey addressed the issue of exclusion amongst UK consumers through assessing the reasons given for not having access to four types of communications technology:

- Landline (in household)
- Mobile phone (used personally)
- Internet access (in household)
- Digital TV (in household)

4.38 Involuntary exclusion has been defined as:

those who do not have access, do not intend to get access and have not made this decision through choice

For example, those who do not intend to get access perhaps due to affordability or lack of coverage in their area have been defined as ‘involuntarily excluded’.

4.39 Voluntary exclusion by contrast has been defined as:

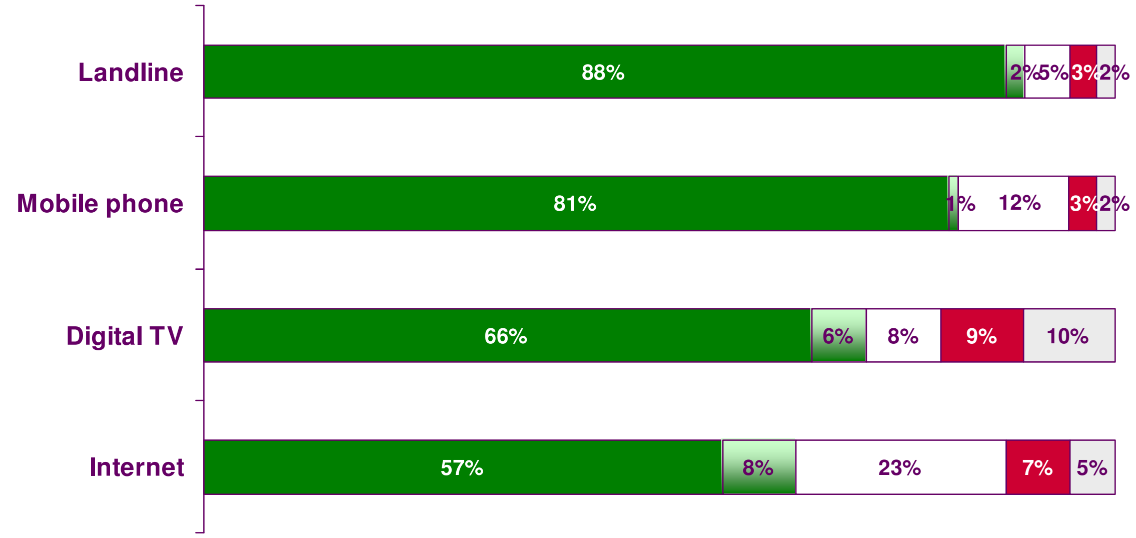
those who do not intend to get access because they say they don’t want or don’t need the technology in question

4.40 Those who gave a mix of ‘voluntary’ and ‘involuntary’ responses were classed as ‘involuntary’. As such, the measures shown for involuntary exclusion are a ‘worst case scenario’ given that some of these consumers will also have said that they don’t need or don’t want the service concerned. It is also worth noting that presenting ‘worst-case involuntary exclusion’ assumes that ‘cost’ would be the deciding factor amongst those stating this aspect plus other voluntary reasons such as ‘no need’. However, in reality this may not always be the case.

4.41 Figure 23 illustrates levels of ownership (through having each technology) across all UK consumers for each of the four technologies, followed by intentions to get each technology in the next 12 months, then levels of worst-case voluntary and involuntary exclusion, and finally those who are unsure as to whether they will get the technology in question in the next 12 months.

Figure 23. Ownership, intention to get and exclusion levels for communications technology[20]

Q. Do you have a landline phone in your home that you’re able to use to make and receive calls? Q. Do you personally use a mobile phone? Q. Does your household have any TV sets that receive additional channels other than BBC, ITV, Channel 4 and (where available) Channel 5? Q. Does your household have access to the internet/ World Wide Web? Q. Do you intend to get [SERVICE] in the next 12 months? Q. Why is that?



4.42 The overall profile of findings shown in figure 23 is very similar to that from the 2004 survey; with voluntary exclusion exceeding involuntary exclusion in each case, and no significant changes in the levels of exclusion since 2004. The findings are also very similar to those published in Ofcom’s Nations and Regions Audit for the three platforms that feature in both reports (mobile phone, digital TV and internet). Levels of involuntary exclusion vary considerably by the four technologies; partly due to different levels of ownership, but also differences in the degree to which those who don’t have the technology also don’t want or don’t feel they have a need for that technology. Digital TV sees the highest level of involuntary exclusion: at one in ten UK consumers, followed by the internet; at one in fourteen UK consumers.

[20] Base: All respondents (2689 UK adults). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

4.43 Levels of involuntary exclusion mostly do not vary significantly from the UK average for each of the four UK nations. It does appear however, that involuntary exclusion from owning digital TV is higher in Northern Ireland (at 12% versus 9% for the UK as a whole). This matches the finding from Ofcom's Nations and Regions Audit.

4.44 Use of the internet outside the home is higher than average amongst those who say they are involuntarily excluded from getting internet access at home (26%) compared to 10% average. All of these findings are very similar to those from the 2004 survey.

4.45 Involuntary exclusion is principally due to affordability for each of the technologies:

Landline – Cost of line rental, and charges generally
Mobile phone – Call charges, and charges generally
Digital TV – Cost of monthly fee, and cost of equipment
Internet – Cost of monthly fee, and cost of equipment

4.46 Indeed, all reasons given by 5% or more of those involuntarily excluded from owning a landline and having internet access relate to expense. For those involuntarily excluded from owning a mobile phone, over half give reasons relating to expense, with relatively few (under one in ten) giving reasons relating to security/ privacy concerns or health concerns.

4.47 For those involuntarily excluded from owning digital television, over half give reasons relating to expense, with relatively few (under one in ten) giving reasons relating to a lack of understanding of the technology. Fewer still (under one in twenty) who are involuntarily excluded from owning digital television give reasons other than expense, with these relating to perceived lack of coverage, a perception that the technology would be complicated, and concerns over the quality of content.

4.48 Given that involuntary exclusion is mostly related to affordability, it is not surprising to find that (except for mobile phones) levels of involuntary exclusion are highest amongst those aged under 65 in low income households. This is most noticeable with regard to involuntary exclusion from the internet; which accounts for one in five of those aged under 65 in low income households compared to one in ten of all consumers.

4.49 Older people aged 65 and over are more likely to be voluntarily excluded; so not interested in acquiring, with no perceived need for the technologies.

4.50 Across all four platforms combined one in six (17%) consumers say they are involuntarily excluded from owning at least one of these services. By nation this is significantly more common for Scotland (23%) and less common for Wales (12%). The extent of any involuntary exclusion for the groups of interest to the Consumer Panel and amongst the oldest and youngest consumers is indicated in figure 24 below; with any significantly higher levels of involuntary exclusion shown in red bold text.

Figure 24. Involuntary exclusion from each of landline phones, mobile phones, internet access at home or digital TV

Q. Do you have a landline phone in your home that you're able to use to make and receive calls? Q. Do you personally use a mobile phone? Q. Does your household have any TV sets that receive additional channels other than BBC, ITV, Channel 4 and (where available) Channel 5? Q. Does your household have access to the internet/ World Wide Web? Q. Do you intend to get [SERVICE] in the next 12 months? Q. Why is that?

	All UK	Rural	Dense urban	Low income aged under 65	People with a disability aged under 65	Older people aged 65 and over	Younger people aged 15-24
Base	*2689*	*266*	*462*	*756*	*465*	*463*	*462*
Landline	3%	1%	4%	**8%**	4%	3%	6%
Mobile phone	2%	*%	4%	2%	5%	7%	*%
Internet	7%	4%	9%	**15%**	7%	8%	8%
Digital TV	9%	10%	9%	12%	6%	**15%**	7%

*% = less than 0.5%

4.51 Those who do not intend to get a landline, a mobile phone or digital TV through choice are very likely to cite the alternative communications technologies they have as a reason for not wanting or needing to acquire the technology in question (for example, "I have no need for a mobile phone as I'm happy with my landline phone"). This is less obviously the case for the internet, however.

4.52 Amongst those voluntarily excluded from internet ownership, there is little evidence that the internet is being used outside the home; with one in ten (10%) of those voluntarily excluded from the internet doing so. This compares with one in four (26%) of those involuntarily excluded, and by two in five (43%) of those with the internet at home.

4.53 Given the higher levels of voluntary exclusion from the internet and digital TV services amongst older people aged 65 and over (as indicated in figure 25), the Consumer Panel are conducting further qualitative research amongst this group to better understand their motivations behind non-ownership of these technologies. The results from this further study will be published later in 2006.

Figure 25. Voluntary exclusion from each of landline phones, mobile phones, internet access at home or digital TV

Q. Do you have a landline phone in your home that you're able to use to make and receive calls? Q. Do you personally use a mobile phone? Q. Does your household have any TV sets that receive additional channels other than BBC, ITV, Channel 4 and (where available) Channel 5? Q. Does your household have access to the internet/ World Wide Web? Q. Do you intend to get [SERVICE] in the next 12 months? Q. Why is that?

	All UK	Rural	Dense urban	Low income aged under 65	People with a disability aged under 65	Older people aged 65 and over	Younger people aged 15-24
Base	*2689*	*266*	*462*	*756*	*465*	*463*	*462*
Landline	5%	4%	7%	**10%**	7%	1%	5%
Mobile phone	12%	7%	11%	8%	12%	**42%**	2%
Internet	23%	18%	21%	25%	28%	**56%**	11%
Digital TV	8%	6%	10%	6%	7%	**19%**	4%

Section 5

Use of communications technology

Introduction

5.1 In this section we examine the types of uses made by those with mobile phones and the internet; to understand the breadth of use made by different users and those with different access and payment methods. We also look at the average monthly spend by consumers for the various platforms, and make comparisons with the 2004 study in this respect.

5.2 This section also investigates difficulties experienced by consumers in using home communications technology, as well as awareness and use of specialist equipment to assist with the use of landline phones, mobile phones and PCs.

Summary

5.3 Whilst a majority of mobile phone owners use their phone for simple communication, few are making further uses of the phone. The exception to this being the youngest adults; aged 15-24. These consumers are more likely to send photos or videos or emails.

5.4 In comparison to mobile phone use, use of the internet is much broader and is more consistent across age groups, with the exception of older adults aged 65 and over. More uses are made of the internet by those with broadband access.

5.5 There are few differences in spend levels across the UK by nation for each of landline, mobile, internet and multi-channel TV services. However, given the lower average income for consumers in parts of the UK (Wales and Northern Ireland) spend on communications accounts for a higher proportion of disposable income (i.e. when taking the varying 'costs of living' across the UK into account) compared to more affluent parts of the UK such as London.

5.6 The only market which has seen significant rise in spending levels since 2004 is the mobile market where spend has increased significantly amongst contract customers.

5.7 A minority of consumers say they experience difficulties using each of these services with the highest levels reported in the mobile market (12%). Unsurprisingly, these proportions are more than double amongst older people, those with a disability or people who say they have visual or hearing difficulties and, to a lesser extent, those who have mobility difficulties.

5.8 Whilst just over half of those aged under 65 with any disability are aware of any specialist equipment to help in using landline and mobile phones and personal computers, few in comparison say they currently have any specialist equipment.

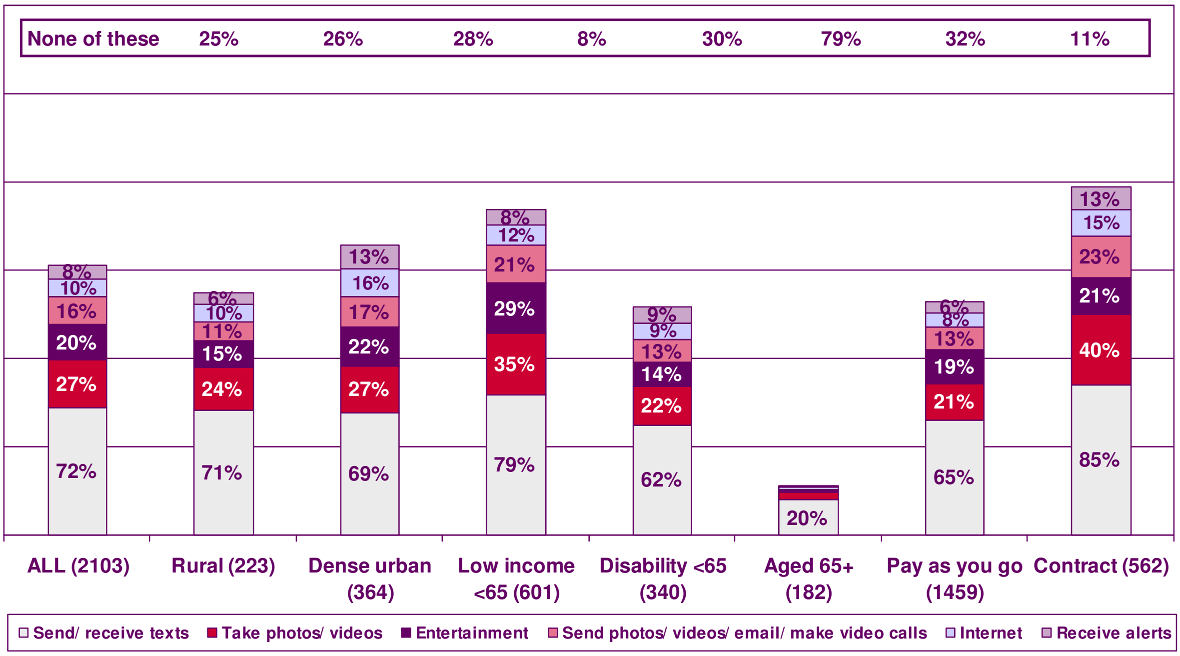
Activities mobile phones used for

5.9 For the first time on this survey, all consumers with mobile phones were prompted with a list of 15 possible uses beyond making and receiving mobile phone calls and were asked to say which they ever use their mobile phone for, and how often. These different types of uses have been grouped into the six broad groups[21] shown in figure 26 below, which indicates the uses made by all with a mobile phone, those from each of the groups of interest to the Consumer Panel, plus a comparison between those using pay as you go and contract mobile phones.

5.10 As indicated in figure 26, a minority of mobile phone users use their phone on a weekly basis for any of these prompted tasks beyond sending and receiving text messages, with one in four mobile phone users not making any of these uses at least weekly (as shown in the horizontal bar at the top of figure 26).

Figure 26. Uses made of mobile phone at least weekly – by groups of interest, and payment method[22]

Q. Which of the following do you ever use your mobile phone for, and how often do you use it for each?



5.11 The location of the mobile phone user has some impact, with those living in dense urban areas making a broader use (as noted above in relation to the proportion of owners doing each of the activities described above) than those in rural areas. Those aged under 65 in low income households make a broader use than mobile phone users as a whole; in particular taking photos or videos, for entertainment (such as playing games, watching videos), and advanced communication such as sending photos or videos or emails.

5.12 Those aged under 65 with a disability say they are less likely to make these prompted uses generally (with the exception of message alerts and internet)

[21] Individual responses were grouped into six groups as follows. 'Send/ receive texts' – Sending and receiving text messages. 'Take photos/ videos etc.' – Taking photos using the phone, Taking moving pictures using the phone. 'Entertainment' – Playing games by yourself using the phone, Playing games with others using the phone, Listening to radio. 'Send photos/ videos/ email/ make video calls' – Sending photos to others using your phone, Sending video messages to others using your phone, Watching videos, Making video calls, Sending or receiving email. 'Internet' – Accessing the internet, Accessing network content (e.g. O2 Active, Vodafone Live, Orange World, T-zones). 'Receive alerts' – Receiving news alerts, Getting sports/ team news/ score alerts.
[22] Base All with a mobile phone (2103). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

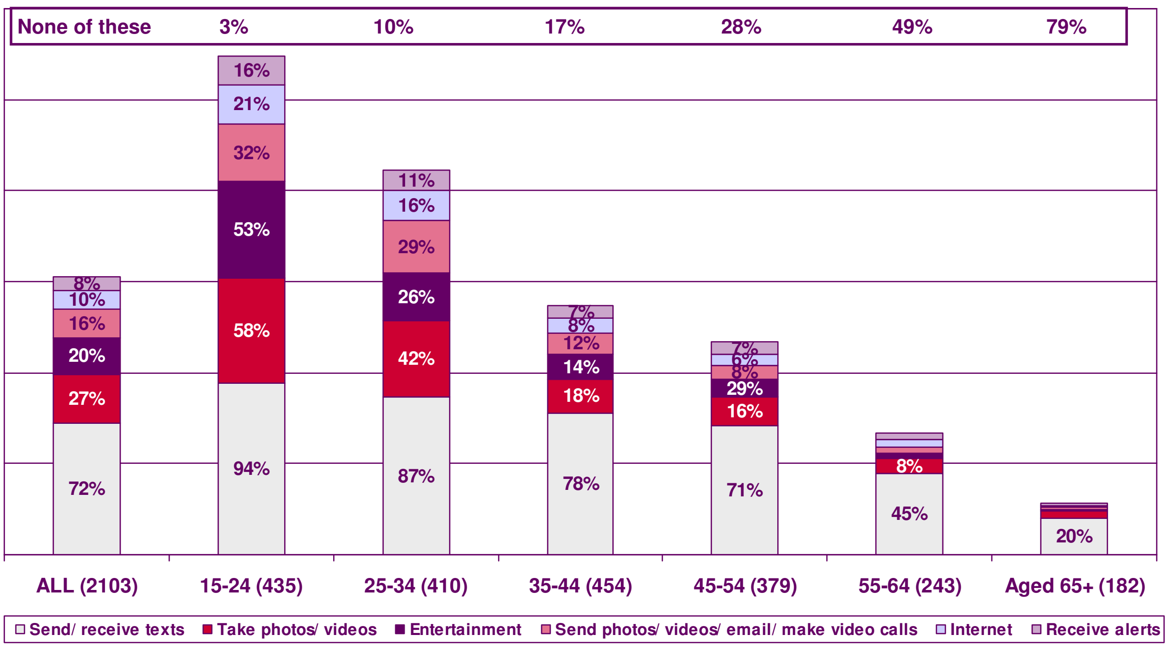
with below average use of the mobile phone for sending/ receiving text messages and for entertainment. The group with the narrowest use is clearly those aged 65 and over; amongst whom four in five make none of these uses on a weekly basis. This may be related to how easy these groups of consumers find it to use their mobile. Stated difficulty using mobile phones is more than twice the average level amongst these two specific groups of consumers. Further detail on difficulties using devices/ services is covered later in this section.

5.13 The method of payment also impacts types of use; with contract users more likely to make each of the uses, but in particular taking photos or videos and sending these to others. Contract customers tend to get mobile phones with more advanced features at a lower cost than pay as you go customers, which may go some way to explaining this difference. It is also the case, however, that contract customers tend to be younger mobile phone users; with a higher proportion of those aged 55 and over with a mobile phone using pay as you go. Therefore, it is unsurprising that the breadth of use amongst contract customers is close to that of younger mobile customers (aged 15-34).

5.14 Figure 27 below compares the types of use made by those with a mobile phone across six age groups.

Figure 27. Uses made of mobile phone at least weekly – by age[23]

Q. Which of the following do you ever use your mobile phone for, and how often do you use it for each?



5.15 It is clear from figure 27 that there is a linear relationship between breadth of use of mobile phones and age. Whilst a majority of mobile phone owners aged under 55 send or receive text message at least weekly, a minority of those aged 25 and over make any of the other types of use shown. Amongst 25-34 year olds, taking and sending photos/ videos and using the mobile phone to

[23] Base All with a mobile phone (2103). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

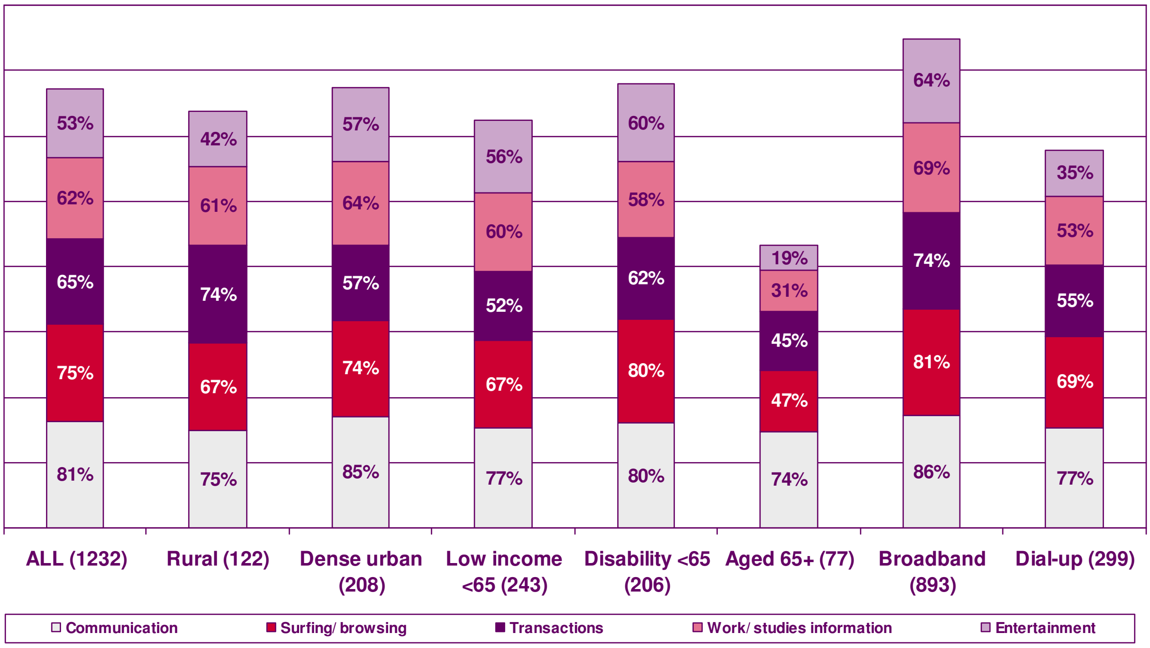
access the internet are at lower levels compared to 15-24 year olds, but significantly higher than for those aged 35 and over.

Activities internet used for

5.16 For the first time on this survey, all consumers with access to the internet at home were prompted with a list of 16 possible uses and were asked to say which they and members of their household use the internet for. These different types of uses have been grouped into the five broad groups[24] shown in figure 28 below, which indicate the uses made by all with the internet at home, those from each of the groups of interest to the Consumer Panel, plus a comparison between those with broadband and dial-up access to the internet from home.

Figure 28. Uses made of the internet at all at home – by groups of interest, and method of access[25]

Q. Which of these do you and members of your households use the internet for?



5.17 All consumers with the internet at home responded that they and/ or members of their household made any of the uses shown on the prompted list. As such, figure 28 does not indicate a proportion saying 'None of these'; unlike the comparable figure (27) for types of uses made by mobile phone owners.

5.18 As shown in figure 28, at least half of all those with the internet at home are making each of these types of uses; with 'Communication' being the most universally popular use (comprising e-mail, Instant Messaging, sending SMS

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[24] Individual responses were grouped into five groups as follows. 'Communication' – Instant Messaging, Internet chatrooms, Sending and receiving email, Sending SMS messages, Making telephone/ voice calls. 'Surfing/ browsing' – General surfing/ browsing the internet. 'Transactions' – Banking, Purchasing goods and services/ tickets etc. , Real time gambling/ trading/ auctions. ' Work/ studies information' – Finding/ downloading information or work, Finding/ downloading information for school/ college/ university/ homework, Home working. 'Entertainment' – Downloading music files, movies or video clips, Listening to digital radio stations, Playing games online/ interactively, Watching video clips/ webcasts (e.g. Big Brother etc.).
[25] Base All with access to the internet from home (1232). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

messages, internet chat rooms, and making telephone/ voice calls using the internet). Those in dense urban areas say they make a broader use of the internet (through higher use of each of the types shown) than those in rural areas, but it's interesting to see that use of the internet for 'Transactions' (banking, making purchases) is higher for those in rural areas for whom this could be a key benefit.

5.19 Those aged under 65 in low income households are less likely use the internet in each of the ways shown in figure 28, with the exception of 'Entertainment' (for example downloading music, playing games interactively). Those aged under 65 with a disability also make a higher use of the internet for 'Entertainment', and also for general surfing/ browsing compared to all consumers.

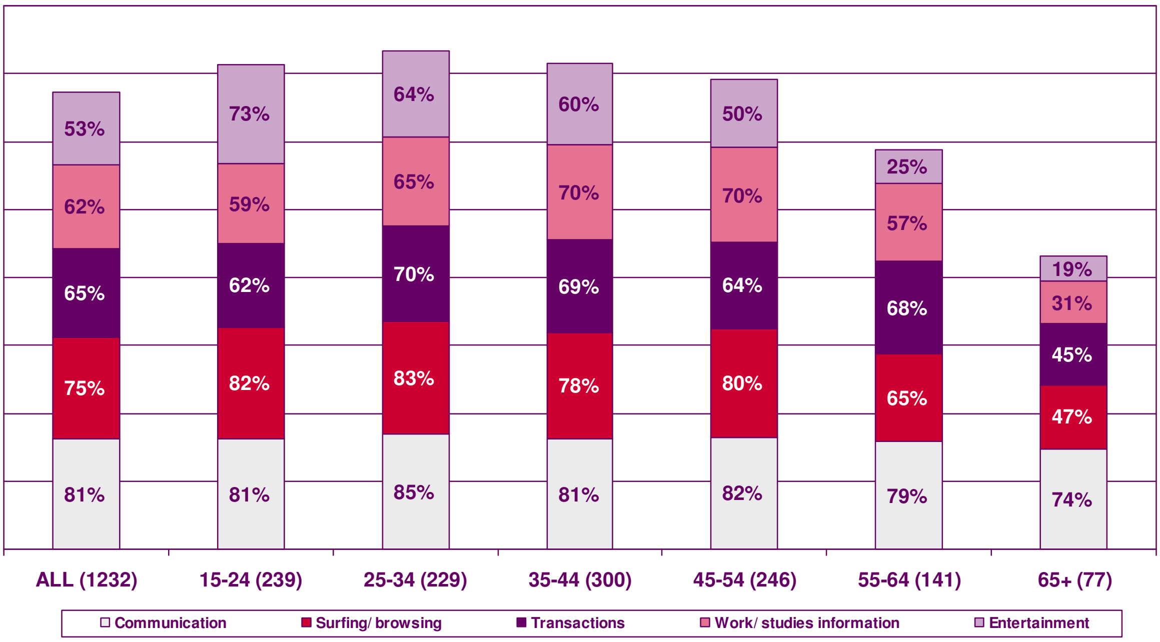
5.20 It's clear that older users of the internet aged 65 and over have the most narrow use of the internet; with a minority using the internet for anything beyond 'Communication'.

5.21 The type of internet access available clearly makes a very significant difference to the types of use made. Those with broadband access show the broadest use; where the proportion making each type of use is higher than average, but in particular for 'Entertainment' and 'Transactions'.

5.22 Figure 29 below compares the types of use made by those with internet access across six age groups.

Figure 29. Uses made of the internet at all at home – by age[26]

Q. Which of these do you and members of your households use the internet for?



5.23 There are relatively few differences in the types of use made by users aged between 15 and 44; with higher use of the internet for 'Entertainment' by those

[26] Base All with access to the internet from home (1232). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

aged 15-24, and higher use for ‘Work/ studies information’ and ‘Transactions’ for those aged 25-44. Using of the internet for ‘Entertainment’ and ‘Transactions’ starts to decline from the age of 45 upwards, with use for ‘Work/ studies information’ declining from the age of 55 upwards.

Spend on home communications

5.24 In this section we report on the monthly spend on home communications as reported by those with the four key platforms covered by the study. Please note, as the figures reported here are based on customer estimates it is likely that they could vary considerably from the actual figures spent by customers. With this in mind we have been cautious in making comparison across the nations and the groups of interest to the Consumer Panel for each of the services.

5.25 Those with access to each of the four types of home communications technology were asked to estimate how much they pay per quarter for their landline phone (including line rental, calls, any equipment rental and VAT) and per month for their mobile phone, internet access, and multi-channel TV. Please note, those only using Freeview for their TV service are not included in the spend figures for multi-channel TV.

5.26 Figure 30 shows the mean average monthly spend amongst those who have access to each of the home communications technologies, overall and by nation. Figure 31 shows the average monthly spend amongst those who have access to each of the home communications technologies by each of the groups of interest to the Consumer Panel. For both figures 30 and 31 estimates of average monthly spend have been rounded up to the nearest pound.

5.27 There are few differences in spend levels across the UK by nation for each of landline, mobile, internet and multi-channel TV services.

Figure 30. Self reported average monthly spend on home communications by nation[27]

Q. Approximately how much would you estimate the quarterly bill is for your landline phone? Q. How much do you spend each month on your mobile phone Q. Approximately how much do you spend each month on your home internet service? Q. Approximately how much do you pay per month for your multi-channel TV service at home?

	All UK	England	Scotland	Wales	Northern Ireland
Base	*2285*	*1302*	*375*	*297*	*311*
Landline per month	£23	£23	£27	£20	£27
Base	*2103*	*1223*	*345*	*302*	*233*
Mobile phone per month	£31	£32	£28	£23	£27
Base	*1539*	*755*	*220*	*213*	*151*
Multi-channel TV per month	£30	£30	£33	£26	£30
Base	*1232*	*797*	*177*	*152*	*106*
Internet access per month	£19	£18	£20	£19	£19

Figure 31. Self reported average monthly spend on home communications by groups of interest[28]

Q. Approximately how much would you estimate the quarterly bill is for your landline phone Q. How much do you spend each month on your mobile phone? Q. Approximately how much do you spend each month on your home internet service? Q. Approximately how much do you pay per month for your multi-channel TV service at home?

	All UK	Rural	Dense urban	Low income aged under 65	People with a disability aged under 65	Older people aged 65 and over
Base	*2285*	*221*	*381*	*547*	*394*	*338*
Landline per month	£23	£24	£24	£21	£22	£17
Base	*2103*	*223*	*364*	*601*	*340*	*182*
Mobile phone per month	£31	£25	£58	£22	£21	£9
Base	*1339*	*118*	*201*	*298*	*246*	*137*
Multi-channel TV per month	£30	£31	£31	£31	£31	£28
Base	*1232*	*122*	*208*	*243*	*206*	**77*
Internet access per month	£19	£16	£21	£19	£19	£13

*Caution, small base size

5.28 While monthly spend on landline services is broadly similar across the UK nations and the groups of interest to the Consumer Panel there are indications that landline spend is higher in Northern Ireland and Scotland, and lower

[27] Base: All with access to each type of home communications technology, self reported spend. Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base
[28] Base: All with access to each type of home communications technology, self reported spend. Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

amongst older people aged 65 and over. Compared to the 2004 study, landline spend has not changed significantly.

5.29 Monthly spend on mobile phone services differs to an extent by nation, in that spend in Wales appears lowest and spend in England appears highest. Amongst the groups of interest to the Consumer Panel, only older people aged 65 and over stand out; with a much lower monthly spend which is consistent with their lower stated use of their mobile phone as illustrated in figures 26 and 27 above. The higher spend indicated for those in dense urban areas is subject to a high degree of variation; through a wide range of responses being given regarding their monthly spend. Once atypical outliers are taken out of this calculation, the average spend for mobile phone users in dense urban areas is close to £30 per month and similar to the UK average.

5.30 Contract customers continue to spend more per month on average than pay as you go customers. There are also indications of increased spending amongst contract customers; rising from £36 per month to £59 per month. After taking outliers (those who differ greatly from the majority responding) out of the results for the two surveys, there is still an indication of increased spending amongst contract customers; from £35 to £46 per month.

5.31 On average consumers with multi-channel TV at home spend around £30 per month on these services. Spend on multi-channel TV services does not differ by nation.

5.32 Monthly spend on the internet service received does not differ to any extent by nation or by most of the groups of interest to the Consumer Panel. The exception appears to be those aged 65 and over with internet access at home; who appear to spend less per month on average. Those with broadband access to the internet continue to spend more per month than those with dial-up access; at around £20 and £14 respectively.

5.33 While overall spending levels do not vary significantly across demographic groups, it is important to consider that these spending levels amongst low income groups may account for a higher proportion of disposable income than for other more affluent groups.

5.34 Ofcom's Communications Market: Nations and Regions report details spend on communications across the UK as a proportion of disposable household income (i.e. taking the varying costs of living across the UK into account). The report concludes that consumers in Northern Ireland and Wales spend a higher proportion of their disposable income on communications (3.6%) compared to the UK average (3.0%), and more affluent parts of the UK such as London (3.1%) and the South East (3.0%), for example.

Difficulties using home communications technology

5.35 In order to assess levels of difficulty using the four types of home communications technology covered by the study, lists of possible difficulties with using each type of technology were presented during the interview. Respondents were asked to indicate which, if any, of these difficulties applied to them and whether they experienced any other difficulties using the technology in question. These questions were asked of both users and non-users for each technology.

5.36 Figure 32 shows the headline figures for any reported difficulties using landline phones, mobile phones, personal computers/ PC's, and televisions; shown in ranked order. As well as the incidence for all UK adults (shown in the first column of figures), the respective incidences for some of the groups of interest to the Consumer Panel have also been shown, including those consumers aged under 65 who defined themselves as having different disabilities[29].

Figure 32. Incidence of experiencing any difficulties using home communications technology[30]

Q. Thinking about [DEVICE], do you ever have/think you might have difficulties doing any of the following?

	All UK adults	Older people aged 65 plus	People with a disability aged under 65	Visual difficulties (<65)	Hearing difficulties (<65)	Mobility difficulties (<65)
Base	*2689*	*463*	*465*	*147*	*81**	*134*
Any difficulties using **mobile phone**	12%	26%	29%	49%	67%	34%
Any difficulties using **TV**	6%	18%	20%	34%	58%	24%
Any difficulties using a **PC**	6%	18%	17%	32%	21%	22%
Any difficulties using **landline**	6%	21%	16%	30%	56%	19%

*Caution, small base size

5.37 To summarise, of the four types of technology, mobile phones appear to attract the highest levels of stated difficulties as shown in figure 32. Just over one in ten UK adults report experiencing any difficulties using a mobile phone; rising to one quarter of those aged 65 and over, and just under one in three of those aged under 65 with a disability. Difficulties using a mobile phone are most likely to be experienced by those with hearing difficulties. There is some indication that difficulties may be impacting mobile phone ownership; perceived difficulties are more common amongst non-owners (at 17% versus 11% of owners).

5.38 The top nomination for difficulties using a TV is 'Hearing the television at a volume other people find acceptable', which accounts for 3% of all consumers, over half (55%) of those aged under 65 with hearing difficulties, and close to half (47%) of those stating any difficulties using a TV.

5.39 Stated difficulties using any of these devices is generally highest amongst those aged under 65 with hearing difficulties, the exception being using a PC where those with visual difficulties are the most likely to report any difficulties. Those with mobility difficulties are the least likely to report any difficulties using these devices, but still at much higher levels than consumers as a whole.

5.40 Consumers who experience difficulties using these technologies consider the technologies to be just as important as other groups of consumers consider them.

[29] 'Visual difficulties' indicates those consumers saying they had 'Poor vision, partial sight or blindness'. 'Hearing difficulties' indicates those consumers saying they had 'Poor hearing, partial hearing or deafness', 'Mobility difficulties' indicates those consumers saying they 'Cannot walk very far or manage stairs or only do so with difficulty', or 'Cannot walk at all/ use a wheelchair'
[30] Base: All respondents (2689 UK adults). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

Awareness and use of specialist equipment

5.41 Specialist equipment is available to assist consumers with any difficulties using each of the services/ devices covered by the study. While some devices are aimed at consumers with disabilities, most specialist equipment may also be beneficial to people who have difficulty using certain types of equipment but are not necessarily defined as having a disability. The following section explores awareness of this equipment amongst all consumers and amongst those to whom the equipment could be of benefit. Current ownership levels of these pieces of equipment are also summarised below.

5.42 To assess awareness and use of specialist equipment all respondents were shown a list of these types of equipment and asked to say which they had heard of previously.

5.43 Overall, around half (51%) of UK adults are aware of any specialist equipment to assist with the use of landlines, mobile phones or PCs. Awareness of any equipment is highest amongst people with hearing difficulties (aged under 65) (63%) and people with mobility difficulties (aged under 65) (65%).

Figure 33. Awareness of specialist equipment to assist with the use of landline phones, mobile phones and personal computers[31]

Q. Before today, which of these devices had you heard of?

	All UK adults	Older people aged 65 plus	People with a disability aged under 65	Visual difficulties (<65)	Hearing difficulties (<65)	Mobility difficulties (<65)
Base	*2689*	*463*	*465*	*147*	*81**	*134*
Voice amplifier for landline phone	36%	41%	42%	34%	54%	47%
Flashing light telephone alarm for landline phone	33%	35%	37%	36%	49%	46%
Specially adapted keyboard (e.g. large keys, large print, etc.)	20%	14%	28%	26%	20%	33%
Voice amplifier for mobile phone	17%	11%	21%	15%	29%	21%
Braille emulator for personal computer	15%	9%	18%	20%	17%	24%
Minicom for making calls by typing into a keyboard	14%	7%	16%	15%	26%	18%
Flashing light telephone alarm for mobile phone	14%	7%	18%	16%	24%	19%
Screen reading software for personal computer	13%	5%	13%	17%	7%	12%
Access to the Typetalk service to link textphone users and hearing people	10%	5%	11%	13%	19%	15%
None of these	49%	49%	43%	44%	36%	35%

*Caution, small base size

5.44 All consumers were asked to refer to the list of specialist equipment again and this time to indicate which equipment, if any, they currently own to help them use landline phones, mobile phones and personal computers. Responses are shown in figure 34, and indicate that a small minority of older people and those

[31] Base: All respondents (2689 UK adults). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

aged under 65 with a disability currently own any of the specialist equipment shown.

5.45 Owning specialist equipment is significantly more common amongst those with hearing disabilities (20%) than those with visual difficulties (11%) which is consistent with the higher awareness of this equipment amongst people with hearing disabilities. Use of specialist equipment is not any higher on average amongst those stating they have difficulties using these devices.

Figure 34. Ownership of specialist equipment to assist with the use of landline phones, mobile phones and personal computers[32]

Q. …do you have any specialist equipment that you use to help you use these devices?

	All UK adults	Older people aged 65 plus	People with a disability aged under 65	Visual difficulties (<65)	Hearing difficulties (<65)	Mobility difficulties (<65)
Base	*2689*	*463*	*465*	*147*	*81***	*134*
Voice amplifier for landline phone	1%	3%	3%	2%	13%	3%
Flashing light telephone alarm for landline phone	1%	2%	2%	5%	5%	*
Specially adapted keyboard (e.g. large keys, large print, etc.)	1%	1%	2%	2%	-	4%
Voice amplifier for mobile phone	1%	*	1%	*	4%	*
Braille emulator for personal computer	*	-	*	*	-	-
Minicom for making calls by typing into a keyboard	*	*	1%	*	1%	-
Flashing light telephone alarm for mobile phone	1%	*	1%	2%	4%	-
Screen reading software for personal computer	1%	-	2%	1%	3%	1%
Access to the Typetalk service to link textphone users and hearing people	1%	-	*	1%	2%	*
None of these	96%	93%	92%	89%	80%	88%
ANY 'HEARING' EQUIPMENT	3%	4%	5%	7%	17%	3%
ANY 'VISUAL' EQUIPMENT	1%	1%	3%	3%	3%	5%

(*= Less than 0.5%) (**=Caution, small base size)

[32] Base: All respondents (2689 UK adults). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

Attitudes towards communications services

Introduction

6.1 In this section we assess the stated importance to owners of the services and devices they have in their household, and whether these services and devices are seen as being any more or less important than was the case in the 2004 study. Similarly, we examine the stated benefit to non-owners of owning the technologies they do not currently have.

6.2 Owners' concerns or worries about the service they have are detailed, along with attitudes towards the costs of services in terms of providing good value. Finally we look at levels of satisfaction and dissatisfaction amongst owners regarding the service they receive.

Summary

6.3 A significantly higher proportion of landline and mobile phone owners consider these services as essential than owners of internet and TV. However, there has been a fall in the proportion of owners considering landlines essential since 2004 and a rise in the proportion of owners considering mobile phones essential. There has been no change in these proportions for internet or TV since 2004.

6.4 Around a fifth of non-owners in each of the landline, internet and DTV markets consider these services would be a benefit to them. Perceived benefits of owning a mobile amongst non-owners are lower, at around one in ten non-owners.

6.5 Consumers are increasingly satisfied with the value they perceive they are getting from each of the communications services. Internet has seen the largest rise; driven by the increased use of broadband. Perceptions of 'good value' are higher amongst higher spenders, which could appear counter-intuitive. However, it could be argued that those using services more heavily are getting more for their money than infrequent, light users. Specifically in the mobile market, pre-pay customers are more likely to say they are getting 'good value' than contract customers.

6.6 The internet continues to elicit the highest level of concerns or worries amongst users; a level which has risen since 2004. Whereas costs are the most common concern for landline, mobile, and digital TV, the key concerns regarding the home internet service relate to security and control.

6.7 The proportion of consumers with concerns or worries have risen for each of the four services in this year's survey, by 7-8% for landline, internet and digital TV, and to a lesser degree (4%) for mobile phones. In the landline market 'privacy' has become one of the highest stated concerns, relating to unsolicited calls/cold calling and also potentially includes 'silent calls'. Unsolicited calls have also become a concern for a minority in the mobile market, an issue which was not evident last year.

6.8 Despite these higher levels of concern, dissatisfaction levels remain low overall. Across each of the services dissatisfaction levels continue to be highest for the supplier making sure the customer is on the best deal available.

6.9 As in the 2004 study, dissatisfaction levels are lowest regarding the internet service received at home. Internet users with broadband access have higher levels of satisfaction with their internet service than those using a dial-up connection.

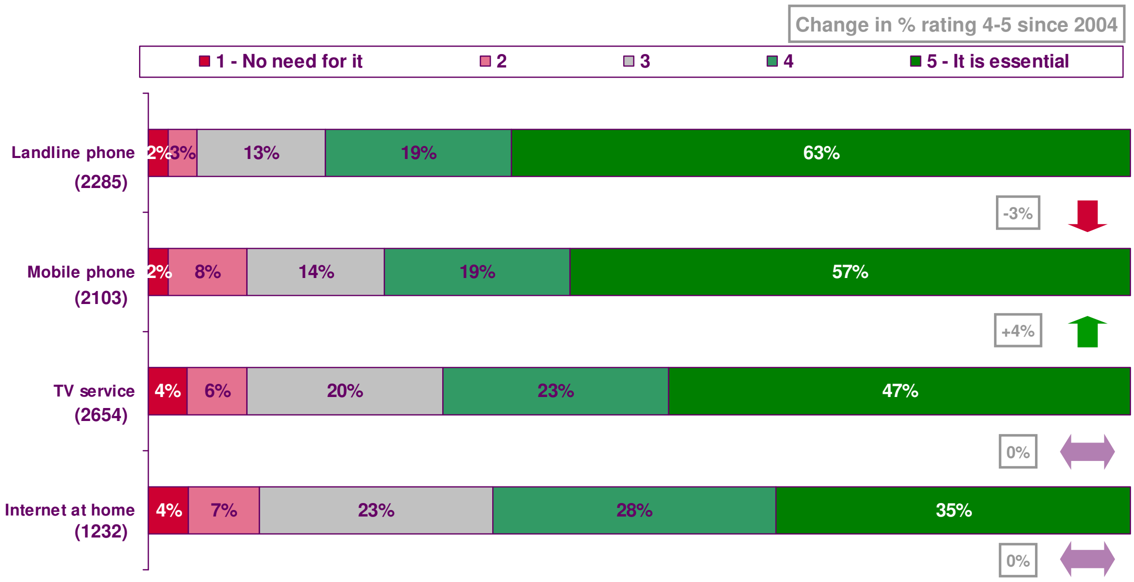
Importance of devices/ services owned

6.10 Those owning each of the types of devices/ services covered by the survey were asked to use a 5 point scale to indicate how much they need each particular device/ service. Figure 35 below shows the overall responses to these questions, and also indicates the extent to which the proportion of owners giving the highest ratings (of 4 or 5 out of 5) has changed since the 2004 survey. The boxes indicating the change since the 2004 study also show an arrow to indicate where any change is statistically significant.

6.11 Figure 35 shows that landline phones and mobile phones are considered essential by significantly higher proportions than consider internet and TV to be essential. Although the change since the 2004 study in those awarding a rating of 4 or 5 out of 5 for these two telephony services is small in both cases, these changes are statistically significant. Mobile phones are significantly more likely and landline phones are significantly less likely to be considered essential than was the case in the 2004 study. There were no significant changes in these proportions in relation to TV or internet services.

Figure 35. Importance of devices/ services owned

Q. What score out of 5 would you give for how much you need your [DEVICE/ SERVICE] – where 1 means you have no need for it and 5 means it is essential?



6.12 Figure 35 indicates that just over one third of those with the internet at home rate this service as being essential to them. By contrast, close to two thirds of those with a landline rate this as essential. As might be expected, the different services/ devices attract higher ratings from different types of users. Those most likely to give 'essential' ratings for each service are:

- Internet – Younger adults, males
- TV service – Aged 65 and over, low income, any disability
- Mobile phone - Younger adults, low income
- Landline – Aged 65 and over, any disability

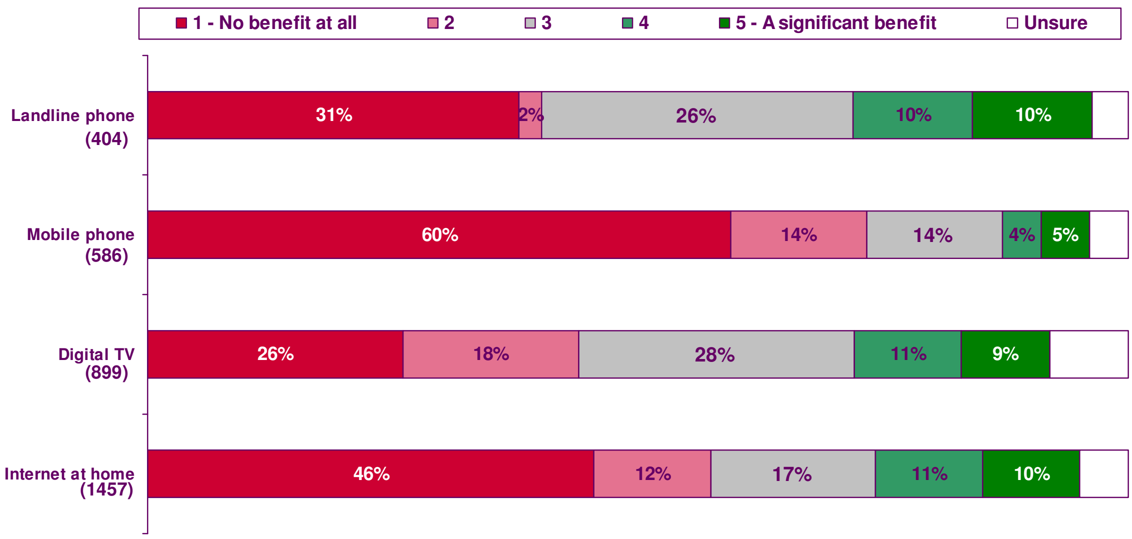
Benefit of owning technology as perceived by non-owners

6.13 Those without each of the technologies were asked to say how much of a benefit they considered the technology would be to them. Figure 36 below shows the responses from non-owners of each of the technologies to this question.

6.14 A fifth of non-landline owners consider a landline would be a benefit to them, through giving a 4 or 5 out of 5 rating for this service. This equates to around 3% of UK adults. Responses were broadly similar amongst non-owners of DTV (20% of non-owners, 9% of UK adults) and non-owners of internet (21% of non-owners, 15% of UK adults). These findings are consistent with higher levels of involuntary exclusion in the internet and DTV markets.

Figure 36. Rating of benefit of owning technologies amongst non-owners[33]

Q. What score out of 5 would you give for how much of a benefit having [DEVICE/ SERVICE] would be to you – where 1 means no benefit at all and 5 means a significant benefit?



6.15 A clear majority of those who do not currently have a mobile phone do not see a benefit in owning this technology with around one in ten (9%) non-owners seeing a benefit to owning a mobile phone. Those involuntarily excluded from owning a mobile phone and those involuntarily excluded from owning digital TV are significantly more likely to rate these technologies as being of benefit to them than average.

[33] Base: Non-owners for each technology (404 Landline, 586 Mobile phone, 899 Digital TV, 1457 Internet). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

Concerns with communication services

6.16 All device/ service owners were asked 'What particular worries or concerns, if any, do you have about your [device/ service]?'. Responses were unprompted, and figure 37 below summarises the overall nominations for each service/ device, as well as the top nominations for each, how the overall proportion nominating a concern compares with the 2004 survey, and finally which types of owners are more likely to have any concerns.

6.17 As in the 2004 survey, the service which sees the highest level of concerns or worries amongst users is home internet access; at two-fifths of users, rising from one third in 2004. Whereas costs are the most common concern for fixed and mobile telephony and digital TV, the key concerns regarding the home internet service relate to security and control.

Figure 37. Concerns or worries for those with access to each service at home[34]

Q. What particular worries or concerns do you have about your [SERVICE]?

Landline (2285)
30% have any concerns or worries (23% in 2004)
- 17% costs
- 9% privacy (unsolicited calls)

Higher for low income, aged 65+, any disability

Mobile phone (2103)
31% have any concerns or worries (27% in 2004)
- 20% costs
- 4% choice/ access/ coverage
- 3% unsolicited calls/ texts
- 3% health

Higher for younger, higher spenders

Internet (1232)
41% have any concerns or worries (33% in 2004)
- 29% spam/ pop-ups/ virus/ control
- 16% security
- 5% speed of connection
- 4% costs

Higher for lower spenders & higher income

Digital TV (1727)
24% have any concerns or worries (16% in 2004)
- 14% costs
- 4% content/ programming
- 4% choice/ access

Higher for 'middle aged', any disability

6.18 Nominations for concerns or worries have risen for each of the four services in this year's survey, by 7-8% for landline, internet and digital TV, and to a lesser degree (4%) for mobile phones. Although relatively small, each of these increases in stated concerns or worries amongst owners compared to the 2004 study are statistically significant.

6.19 In the landline market 'privacy' has become one of the highest stated concerns; relating to unsolicited calls/cold calling and also potentially includes 'silent calls' caused by call centres' dialling systems.

6.20 Similarly, although to a lesser extent, unsolicited calls/ texts also appears as one of the top concerns in relation to mobile phones; an issue which was not evident in 2004.

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[34] Base: Those with access to each service at home (2285 landline, 2103 mobile phone, 1232 internet access, 1276 digital TV). Ofcom Consumer Panel Survey October-November 2005, conducted by saville rossiter-base

6.21 In the internet market the issues remain broadly similar to last year although significantly more consumers are concerned about spam/ pop-ups/ virus/ control and security issues than in 2004.

Attitudes towards the cost of services

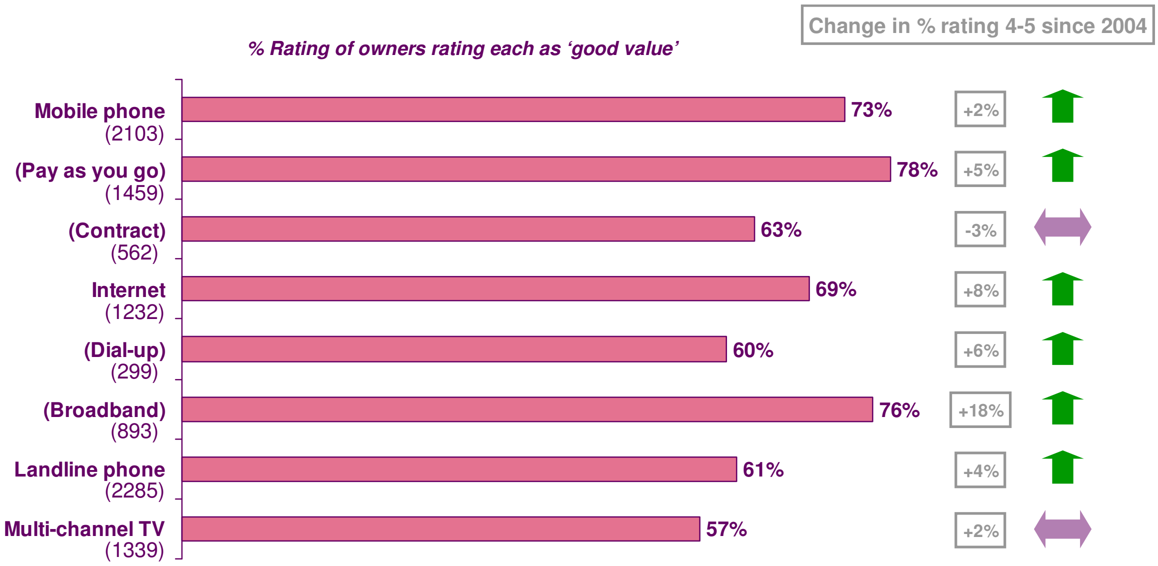
6.22 As in the 2004 survey, those with each of the services covered by this study were asked to use a 5 point scale to rate the cost of the service in terms of providing good or poor value. Figure 38 illustrates the proportion of those with each service awarding a 'good value' rating (of 4 or 5 out of 5). Changes in this 'good value' rating since the 2004 survey are also indicated, and the services are shown in ranked order of the proportion of owners assigning a 'good value' rating. Please note, the aggregated rating for the internet (broadband and dial up) is shown, along with ratings given by those with broadband and those with dial-up access separately. Ratings for 'multi-channel' TV have been given by those with satellite and cable TV.

6.23 While mobile phone and internet users perceive broadly similar levels of 'good value' from these services at 73% and 69% respectively, comparable figures in the landline (61%) and multi-channel TV markets (57%) are lower.

6.24 Freeview owners were asked this question on a separate survey and not illustrated on the chart below. The rating of 'good value' was significantly higher in relation to Freeview services (82%) compared to the average reported in figure 38 for multi-channel TV services excluding Freeview. Subscribing to additional channels on Freeview had little impact on perceptions of good value – 81% of those that subscribe to additional channels rated this service as good value compared to 84% amongst those that only receive the free channels.[35]

Figure 38. Services rated as providing 'good value' by those with each service[36]

Q. Which of the options on this card applies in terms of the cost of your [SERVICE]?



[35] Source: ICM survey, conducted amongst 2160 UK adults aged 15+ in March 2006. Base: 545 adults with Freeview at home

[36] Base: Those with access to each service at home (2285 landline, 2103 mobile phone, 1232 internet access, 1276 digital TV). Ofcom Consumer Panel Survey October-November 2005, conducted by saville rossiter-base

6.24 Apart from contract mobile phone customers and multi-channel TV owners, each of the services shows a significant positive shift in the value rating since the 2004 survey. This is most notable for the internet overall (up 8%) driven by broadband users (ratings up 18%). This recent rise in perceived 'good value' amongst broadband customers may be an impact of the reduction in prices for broadband services[37].

6.25 Higher ratings for providing good value are given for each of the services by those who spend the most on the service each month. This could appear counter-intuitive, but it could be argued that those using services more heavily are getting more for their money than infrequent, light users.

Satisfaction with services/ suppliers

6.26 As in the 2004 survey, levels of satisfaction with the overall service provided by communications service suppliers are between 72% and 75% for landlines, mobile phones, internet and digital TV access. In terms of the overall service provided, dissatisfied customers account for fewer than one in twenty users across the UK, and fewer still are dissatisfied in terms of understanding bills from their supplier. The aspect of service covered by the survey which found higher levels of dissatisfaction and accounting for around one in ten customers is 'Your supplier making sure you are on the best of their deals for you'. This was also the case in the 2004 survey.

6.27 Figure 39 shows the measures of satisfaction (green) and dissatisfaction (red) for each aspect covered by the survey and for each type of technology consumers had at home. Please note that those neither satisfied nor dissatisfied with each aspect are not included in this table, and so figures may not add to 100%. The percentage figures shown in brackets indicate the change in each of the satisfaction ratings since the 2004 survey, with green and red arrows indicating any significant increases and decreases.

Figure 39. Levels of satisfaction and dissatisfaction with suppliers[38]

Q. How satisfied are you with [SUPPLIER] for each of the following?

	Landline (2285)	Mobile phone (2103)	Digital TV (1339)	Internet (1232)
Understanding bills	75% satisfied (-1%) 5% dissatisfied (+2%)	83% (+2%) 4% (0%)	73% (+8%) ↑ 2% (+1%)	68% (+5%) ↑ 2% (+1%)
Making sure you're on best of their deals	59% (+2%) 9% (0%)	54% (-2%) 8% (-2%)	59% (+2%) 9% (+2%)	58% (+1%) 6% (+2%)
Overall service provided	75% (+5%) ↑ 4% (0%)	76% (+2%) 3% (-2%)	72% (0%) 4% (-1%)	74% (+3%) ↑ 3% (+1%)
ANY DISSATISFACTION	12% (0%)	9% (-4%) ↓	11% (+1%)	7% (+1%)

↓ ↑ Significant change since 2004

[37] Source: http://point-topic.com

[38] Base: Those with access to each service at home (2285 landline, 2103 mobile phone, 1232 internet access, 1276 digital TV). Ofcom Consumer Panel Survey October-November 2005, conducted by saville rossiter-base

6.28 Satisfaction ratings from internet and digital TV owners have increased significantly regarding 'The ease of understanding bills from your supplier', and ratings from landline and internet owners have increased significantly regarding 'The overall service provided by your supplier'. Satisfaction levels for 'Your supplier making sure you are on the best of their deals for you' attracts the lowest levels of satisfaction and the highest levels of dissatisfaction, as was also the case in the 2004 study.

6.29 The final row shown in figure 39 summaries where any dissatisfaction was reported by consumers of each type of service, and shows that dissatisfaction is lowest for the home internet service, as was also the case in 2004.

6.30 Across each of the home communications services there is a clear trend when identifying dissatisfied customers: they tend to be those who are spending more on the service, are more likely to keep themselves informed of developments in communications technology, and are more likely to have ever switched to a different supplier for the service concerned. In terms of their demographics they are more likely to be working, 'middle aged' (at between 35-54 years of age), and of the social grade category ABC1.

6.31 Levels of satisfaction amongst those with broadband access are considerably higher than amongst those with dial-up access, as indicated in figure 40. Levels of dissatisfaction, however, are at a similar level. We can therefore conclude that the increases in satisfaction seen across all those with internet access in this year's survey are being driven by the increase in take-up of broadband, and also that those with dial-up access have more neutral attitudes towards their internet service.

6.32 These differences in satisfaction ratings are not evident when comparing responses regarding the mobile phone service given by those using pay as you go and those with a contract.

Figure 40. Levels of satisfaction and dissatisfaction with internet service[39]

Q. … how satisfied are you with [SUPPLIER] for each of the following?

	Broadband (893)	Dial-up (299)
Understanding bills	78% 2%	55% 1%
Making sure you're on best of their deals	67% 7%	47% 4%
Overall service provided	81% 3%	67% 2%
ANY DISSATISFACTION	8%	5%

39 Base: Those with access to the internet via broadband or dial-up. Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base.

Switching suppliers amongst residential consumers

Introduction

7.1 This section assesses the experience of consumers who have switched service suppliers, identifies which groups of consumers are more likely to have ever switched, and the extent to which mobile customers check they are on the most suitable tariffs for them.

Summary

7.2 With the exception of a slight increase in switching in the landline market, the proportion of consumers who have changed supplier remain broadly similar to 2004. A minority of consumers said the process either was, or they considered it would be difficult – again there has been no change in these perceptions.

7.3 Around four in ten mobile customers say they ever check whether they are on the best tariff or deal for them. This behaviour is largely driven by contract customers, higher spenders and those who say they keep themselves informed. Just over a quarter of mobile customer say they have changed to what they consider to be a better tariff deal for them, rising to half amongst contract customers.

Experience of switching suppliers

7.4 Those with each of the services covered by this study were asked whether (apart from moving house for landline, internet and multi-channel TV services), they had ever changed the supplier that they use for each service. Figure 41 below summarises the overall levels of switching behaviour, how this compares to the 2004 study, and which consumers are more likely to have ever switched.

7.5 The types of customers more likely to have ever switched supplier tend to be similar across markets: younger, more affluent and more likely to keep themselves informed.

Figure 41. Experience of switching suppliers[40]

Q. Apart from moving house, have you ever changed the company that provides your home landline service? Q. Have you ever changed your mobile phone network? Q. Apart from moving house, have you ever changed your home internet service provider? Q. Apart from moving house, have you ever changed the company that provides your multi-channel TV service?

Landline

Close to one third (29%) with landline have ever changed supplier (increase from 23% in 2004)

Highest amongst – 35-54, higher income households, those keeping informed, with internet, with digital TV

Mobile phone

Over one third (35%) with a mobile have ever changed supplier (no change from 34% in 2004)

Highest amongst under 45's, contract customers, higher spenders, rural areas, those keeping informed, without a landline

Internet

One in five (20%) with internet have ever changed supplier (no change from 18% in 2004)

Highest amongst broadband users, those keeping informed

Multi-channel TV

One in ten (11%) with a multi-channel TV service have ever changed supplier (no change from 11%)

Highest amongst 45-64, higher income households, those keeping informed, dense urban areas

7.6 Those with experience of ever switching supplier were asked whether it seemed easy of difficult to change the company supplying the service. Around one in ten or fewer of those who have ever switched said that the experience had been difficult. The base sizes are too small to support any further analysis amongst these consumers. Ofcom's Consumer Policy consultation document contains more information on switching behaviour amongst residential consumers across each of the telecoms markets[41]. In addition, further qualitative work is in progress exploring the decision-making process of consumers largely focusing on those who say they are 'uninvolved' in each of the telecoms markets. The findings from this research will be published alongside the Consumer Policy Statement later in 2006.

Mobile phone tariff checks

7.7 Amongst all mobile phone users, the majority (59%) said that they never check whether they are on the best tariff or deal. However, 29% said they check this at least yearly and a further 9% said they check less often than yearly. The results are summarised in figure 42.

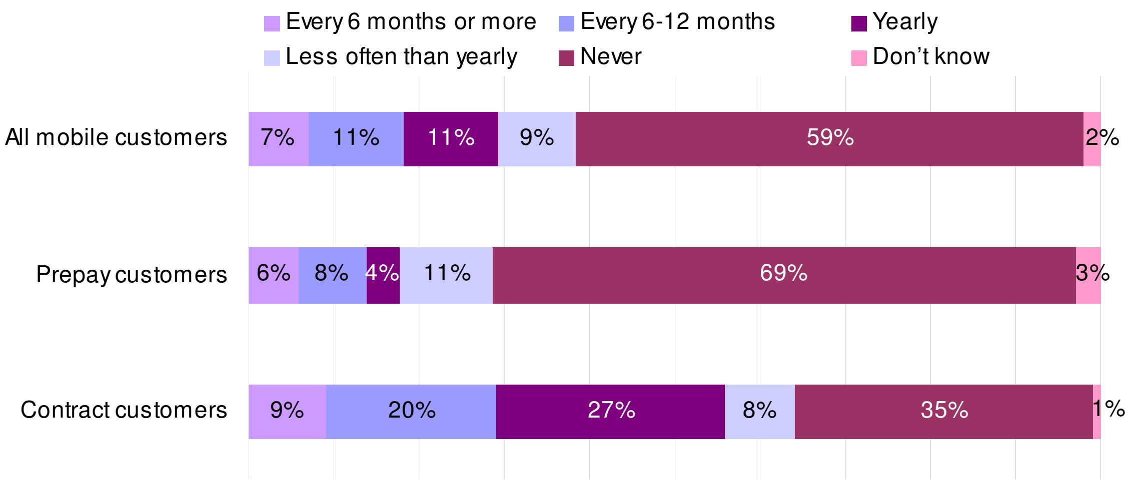
7.8 Pre-pay customers are significantly less likely to check their mobile tariff (69% never check) compared to contract customers (35% never check). This is unsurprising given there are fewer tariff options for prepaid customers. In addition, the renewal process evident for contract customers may also act as a

[40] Base: Those with access to each service at home (2285 landline, 2103 mobile phone, 1232 internet access, 1276 digital TV). Ofcom Consumer Panel Survey October-November 2005, conducted by saville rossiter-base
[41] http://www.ofcom.org.uk/consult/condocs/ocp/ocp_web.pdf

prompt to assess tariff and, in fact, 27% of contract customers said they check their tariff on a yearly basis.

Figure 42. Whether mobile customers check they are on the best deal[42]

Q. How often do you check whether you are on the best mobile phone tariff or best deal for you?



7.9 As might perhaps be expected, checking is more common amongst those who keep themselves informed of developments in communications technologies.

7.10 In summary, the types of mobile phone owners who are amongst the least likely to check whether they are on the best deal are:

- Those in low income households
- Females
- Aged 55 and over
- Using pay as you go
- Low monthly spend

7.11 Just over one quarter (26%) of mobile phone owners said they have ever changed the mobile phone tariff or deal they are on. Unsurprisingly this is higher amongst contract customers (49%) compared to prepay customers (16%).

Consumers who are most likely to have changed their tariff are:

- Aged under 35
- Using a contract
- Higher spenders
- Keep themselves informed
- High monthly spend

[42] Base: All personally use mobile (2103), prepay customers (1459), contract customers (562), Ofcom Consumer Panel Survey October-November 2005, conducted by saville rossiter-base

Digital switchover

Introduction

8.1 In this final section regarding residential consumers we assess awareness, understanding and attitudes towards digital switchover; and make comparisons for each with the 2004 study.

Summary

8.2 Overall awareness and understanding of digital switchover has increased significantly across all groups of interest since the 2004 study, but remains lower amongst older people aged 65 and over and those in low income households.

8.3 While it appears that this improvement in understanding has lead to an increase in positive perceptions, a significant proportion (31%) of residential consumers still don't know enough about digital switchover to have an opinion either way.

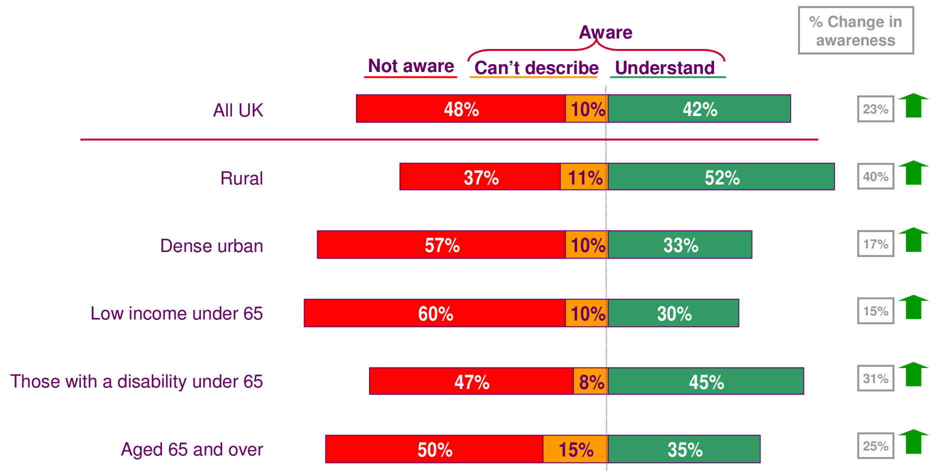
Awareness of digital switchover

8.4 We have seen previously in this report that awareness of communications terms has increased significantly since the 2004 study. In the same way, awareness and understanding of digital switchover have also increased significantly. Half (52%) of all residential consumers have heard the term 'digital switchover', and two in five (42%) of all adults are able to correctly describe what the term refers to. The comparable levels from the 2004 study are 29% and 19% respectively.

8.5 Figure 43 below compares levels of awareness (have heard the term) and understanding (can describe what the term refers to) for the UK as a whole, and across the groups of interest to the Consumer Panel. The change in the proportion who are aware of the term 'digital switchover' is shown to the right hand side of figure 43, along with arrows to indicate significant changes.

Figure 43. Awareness and understanding of 'digital switchover'[43]

Q. Have you heard the term 'digital switchover' before today? IF YES – What does the term 'digital switchover' mean to you, how would you describe it to someone else?



[43] Base: All respondents (2689 UK adults). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

8.6 Whilst awareness of the term ‘digital switchover’ has increased significantly for all of the groups shown in figure 43, awareness can be seen to be significantly lower amongst those in low income households, dense urban areas, and amongst older people. In addition, awareness of ‘digital switchover’ as a term is also significantly lower amongst the youngest adults aged under 25 (with 33% aware compared to 52% for all consumers).

Attitudes towards digital switchover

8.7 The following description of digital switchover was given to the residential consumers interviewed on the survey:

Digital television provides viewers with improved picture and sound quality, more TV channels and some new digital-only radio channels, as well as information services using the interactive ‘red button’. Many households in the UK already receive digital television through cable, satellite or Freeview.

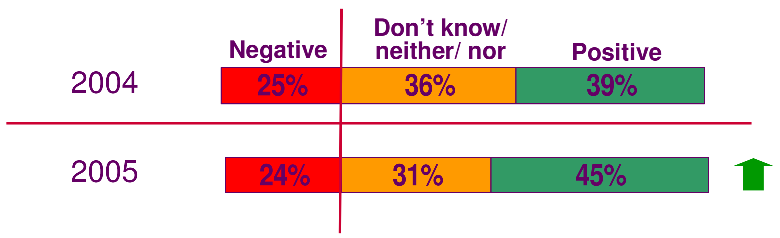
The digital switchover will be phased in region by region and there will be at least two years notice given to people in each region of the country, it won’t happen overnight.

The digital switchover is due to be in place by 2012, and will involve switching-off the analogue television transmissions received through a TV aerial. All televisions and video recorders would then need to be connected to a digital service such as those provided by Sky, the cable TV companies, or Freeview, in order to receive TV broadcasts.

8.8 Having heard this description, consumers were then asked ‘Does the digital switchover sound like a positive or negative thing in your opinion. Figure 44 compares responses across the two studies conducted to date

Figure 44. Whether digital switchover sounds like a positive or negative thing[44]

Q. Does the digital switchover sound like a positive or negative things in your opinion?

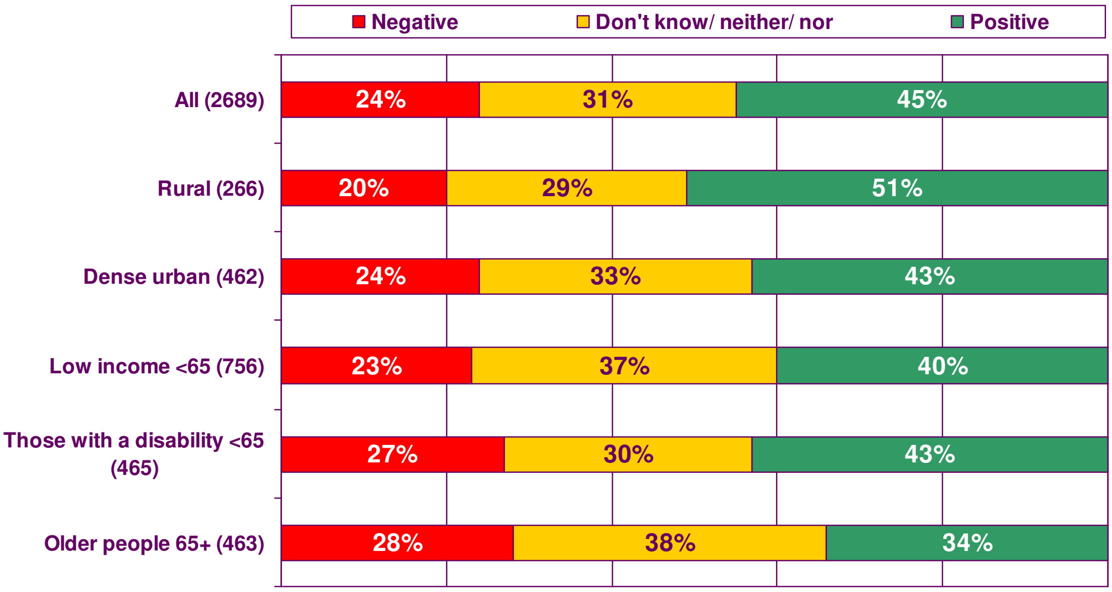


8.9 The 6% increase in those rating digital switchover as a ‘positive thing’ is significant, but it is clear from figure 44 that there has been no commensurate decrease in the rating of digital switchover as a ‘negative thing. Figure 45 below summarises attitudes towards digital switchover by nation and by the groups of interest to the Consumer Panel.

[44] Base: All respondents (2689 UK adults). Ofcom Consumer Panel Survey, October-November 2005, conducted by saville rossiter-base

Figure 45. Opinion of digital switchover – by groups of interest

Q. Does the digital switchover sound like a positive or negative thing in your opinion?



8.10 As detailed in figures 44 and 45, around one in three consumers don't know enough about digital switchover to have an opinion as to whether it is a positive or a negative thing. This is more common amongst those outside of England, older people, those in low income households, females and those who don't keep informed.

8.11 Negative opinions regarding digital switchover are, unsurprisingly, more common amongst those who do not have digital TV. 21% of those with DTV have negative opinions of DSO compared to 29% amongst those without DTV. It's also the case that those with negative opinions about digital switchover are more likely than average to have cost concerns regarding their current TV service, and to view the cost of their TV service as providing poor value.

8.12 Around one in ten of those with negative opinions about digital switchover and without a digital TV service intend to get digital TV in the next year. However, amongst consumers with negative opinions on digital switchover who are not intending to get digital TV their reasons do not differ from average; with around half who say they are voluntarily and half involuntarily excluded.

Is there a knowledge gap amongst small businesses and sole traders?

Introduction

9.1 This section examines levels of awareness and understanding of five communications services terms amongst small businesses, and how levels of awareness and understanding compare to those from the 2004 study in relation to broadband, 3G, Wi-Fi and VoIP.

9.2 We look at whether small businesses keep informed about the three key platforms of landline and mobile phone and the internet, and which groups of businesses are less likely to keep informed. We also examine the sources of information small businesses would turn to for advice or information regarding communications services.

Summary

9.3 As in the 2004 study, broadband is the only one of the four communications services terms which has a reasonable level of understanding amongst small businesses, with understanding of this service also showing a significant improvement since the 2004 study. While it is still the case that the majority of small businesses have not heard the term '3G', there has been a significant increase in both awareness and understanding of the term this year.

9.4 Similar to residential consumers, small businesses are more aware that each of these services exist in terms of recognising that service with these capabilities are available.

9.5 The proportion of small businesses keeping themselves informed about new developments regarding making calls from business landlines, mobile phone technology or ways of connecting to the internet has increased significantly this year, but still remains below half of all small businesses.

9.6 Suppliers and stores were the most popular source of information for small businesses in 2004, however this position is now shared with 'friends and family'. As in the 2004 survey, those who keep themselves informed of communications services developments are considerably more likely to say they would refer to on-line sources.

9.7 As noted in the residential section of this report, whilst we cannot identify where 'friends and family' obtain their information it is important to at least consider where these consumers might turn to when analysing use of other sources. For example, if 'friends and family' are turning to the internet the importance of 'online sources' is increased.

Technical terms for communications services – consumer awareness

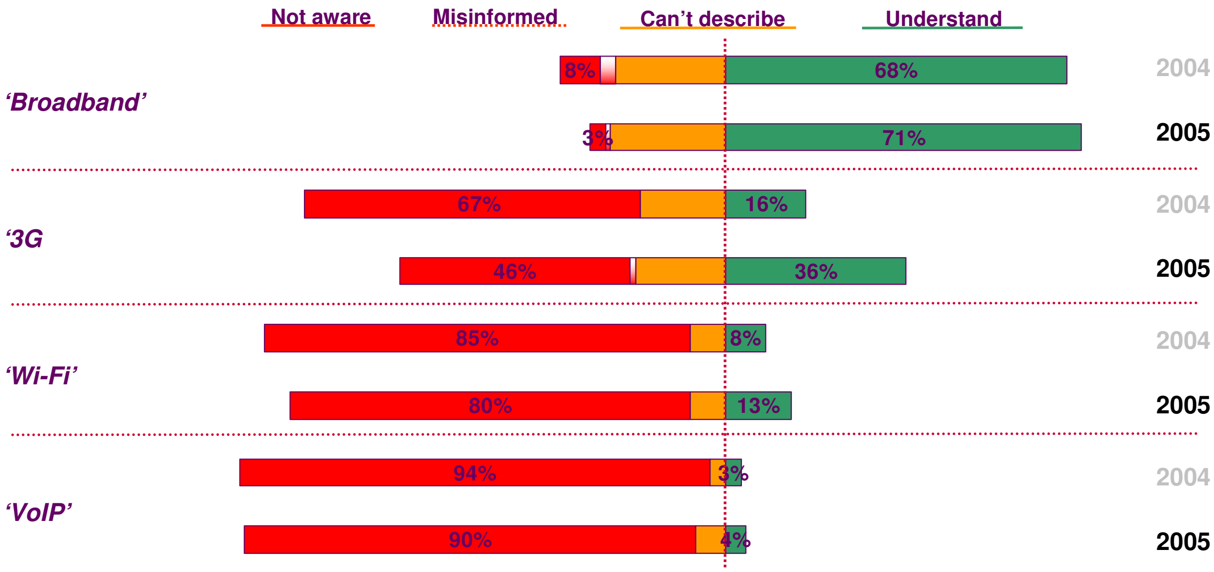
9.8 The owners and managers of small businesses interviewed for this survey were prompted over the telephone with the names of four communications services terms, and were asked to say which of these they had heard of. For each of the four terms they said they had heard of, they were then asked if they could describe to a colleague or friend what it meant, and how they would describe it to them. Those who had not heard of a particular term were prompted with a description of the service and were then asked whether they had previously been aware of the service.

9.9 Figure 46 below indicates the categories of response for each of the four terms relating to communications services that were covered by the survey. Responses are shown for both the 2005 and 2004 surveys conducted with small businesses. The sections shown in green to the right of the vertical line indicate those who understand the term through being able to provide a good description. Those shown in amber immediately to the left of the vertical line are aware of the term but (mostly) don't know what it means or (rarely) provide a poor description. The shaded red section indicates the proportion of consumers who have heard of the term but provide an incorrect description. Finally, the solid red section to the far left indicates those who have never heard the term in question.

9.10 Whilst almost all small businesses (97%) have heard of the term 'broadband', just over half (54%) have heard of '3G', and fewer still (20%) have heard of 'Wi-Fi' or 'VoIP' (10%). There have only been significant increases in awareness for the terms 'broadband' and '3G'.

Figure 46. Awareness and understanding of communication services terms[45]

Q. Which of the following terms relating to communication services had you heard of before today? [FOR EACH HAD HEARD OF] Could you describe what '[SERVICE]' is to a colleague or a friend? How would you describe it?



Technical terms for communications services – consumer understanding

9.11 As well as the majority of small businesses having heard of broadband, over two-thirds (71%) of decision-makers understand this term through being able to give a correct description of what 'broadband' means. By contrast just over

[45] Base: All respondents (301 small businesses) Ofcom Consumer Panel Survey, October/ November 2005, conducted by saville rossiter-base

one-third of small businesses understand what ‘3G’ means, and one in twenty (4%) understand what ‘VoIP’ means.

9.12 As shown previously by the green bars in figure 46, comparing responses from the 2004 and 2005 surveys, there has been a significant increase in understanding for the term ‘3G’. Understanding has been defined as those who are aware of the term and able to describe what the service or device is or what it can do. Figure 47 indicates levels of understanding for the four terms overall and by business size amongst those who were aware of the term. Levels of understanding from the 2004 study and the 2005 study are shown, and any statistically significant changes for 2005 are shown in green bold text.

Figure 47. Understanding of communications services terms and change 2004-2005

Q. [FOR EACH TERM HAD HEARD OF] Could you describe what ‘[SERVICE]’ is to a colleague or a friend? How would you describe it?

		All small businesses (301)	Sole trader (150)	2-5 employees (81)	6-10 employees (70)
Broadband	2004	68%	67%	68%	83%
	2005	71%	68%	78%	91%
3G	2004	16%	14|%	23%	26%
	2005	**36%**	**37%**	29%	**49%**
Wi-Fi	2004	8%	8%	8%	16%
	2005	13%	12%	17%	22%
VoIP	2004	3%	3%	4%	3%
	2005	4%	4%	4%	2%

9.13 Amongst businesses that have heard of 3G there has been a significant increase in levels of understanding compared to the 2004 study; across all small businesses as well as sole traders and those with 6-10 employees. None of the other changes in levels of understanding have changed to any significant extent.

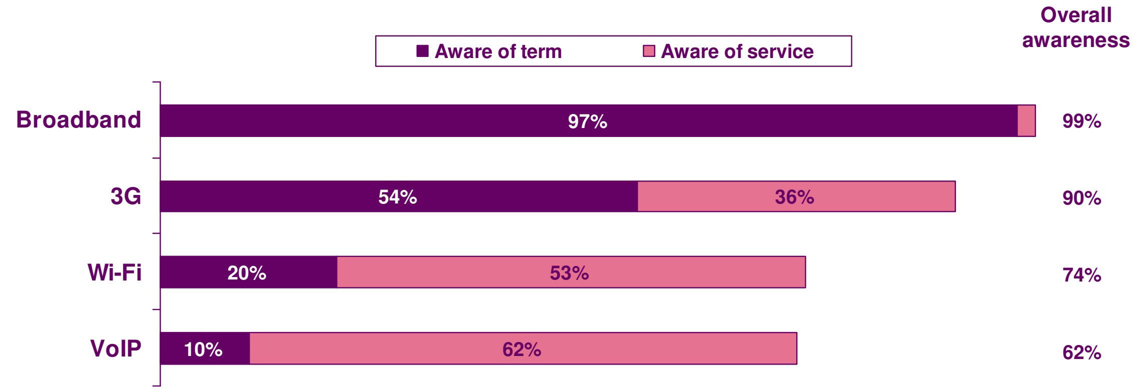
Overall awareness of communications services

9.14 For the 2005 survey those who were not aware of each term were prompted with a description of the service or device. By combining those who are aware of the term with those who are aware of the service when it is described to them we are able to look at a measure of overall awareness for each of the services covered by the study.

9.15 Compared to the levels of awareness amongst small businesses of the communications terms alone, significantly more small businesses are aware of the capability of Wi-Fi and VoIP services once they are read an explanation of what these services provide. This is illustrated in figure 48 below, which shows the proportion of small businesses aware of the terms plus the proportion who recognised the description of the service.

9.16 Given that almost all small businesses were already aware of broadband, overall awareness of this technology does not change significantly. However, overall awareness of 3G rises by 36 percentage points to nine in ten small businesses. Overall awareness of Wi-Fi and VoIP rises by 53 and 62 percentage points to half and three in five small businesses respectively.

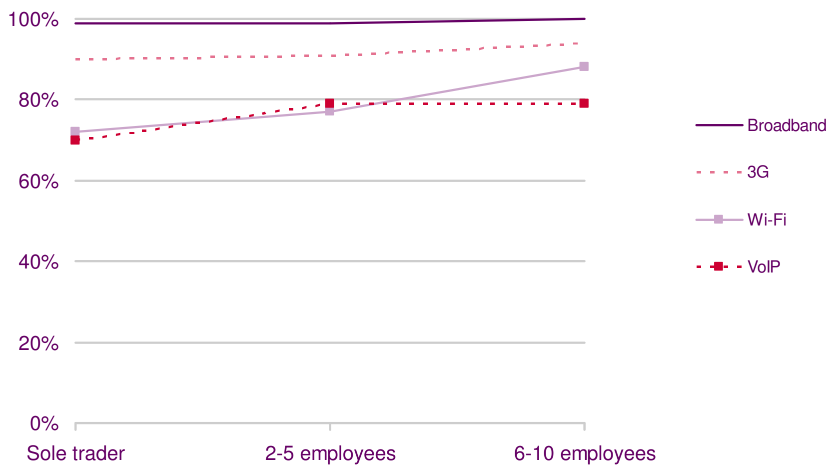
Figure 48. Impact of describing the service to small businesses[46]



9.17 Overall awareness of broadband accounts for virtually all small businesses (97%), and overall awareness of 3G accounts for nine in ten (90%). Overall awareness does not vary significantly by the size of the business for these two communications terms. For VoIP and Wi-Fi, however, overall awareness is significantly higher amongst businesses with 6-10 employees compared to sole traders.

9.18 Figure 49 below indicates overall awareness (in terms of having hearing of the term or being aware once the service/ device is described) across small businesses by the number of employees. Awareness of broadband and 3G services is broadly consistent across all small businesses whereas Wi-Fi and VoIP services see an increase in awareness amongst larger small businesses.

Figure 49. Overall awareness of communications services terms[47]



Keeping informed

9.19 Just under half (46%) of all small businesses say they keep themselves informed about new developments for any of the following:

- Different options and suppliers for making calls from your fixed line at work
- Mobile phone technology, services and suppliers

[46] Base: All respondents (301 small businesses). Ofcom Consumer Panel Survey. October/ November 2005, conducted by saville rossiter-base
[47] 'Base: All respondents (301 small businesses) Ofcom Consumer Panel Survey, October/ November 2005, conducted by saville rossiter-base

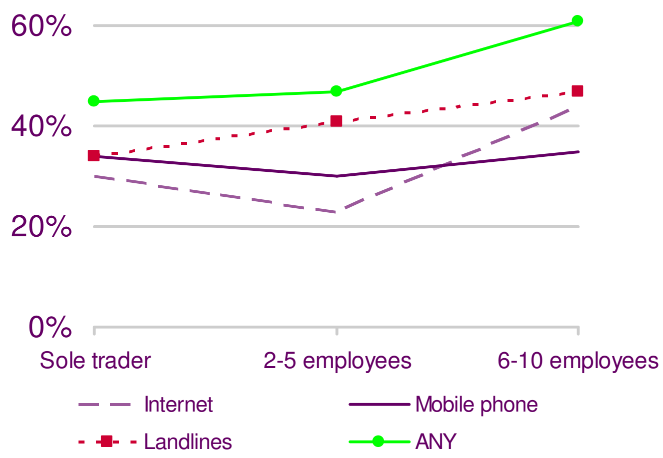
- Different options and suppliers for connecting to the internet

9.20 The overall proportions who keep themselves informed (46% of all) represents a significant increase on the 2004 survey measure of 39%. In contrast to residential consumers and as per the 2004 survey, small businesses are most likely to keep themselves informed about options for making calls from their fixed line for work (36%, from 29% of all small businesses) and least likely to keep themselves informed about ways of connecting to the internet (29%, from 22% of all small businesses). One-third said they keep informed about mobile phone technology, services and suppliers (an increase from 24%).

9.21 Keeping informed varies to a reasonable extent in terms of the type of communications service and varies considerably by the size of business. This is illustrated in figure 50, which shows the incidence of those who keep themselves informed about each of the three communications services and (in green) any of these services, for each of three business size categories.

Figure 50. Keeping informed about communications services developments by size of business[48]

Q. Do you tend to keep yourself informed about new developments for any of the following?



9.22 The largest businesses are significantly more likely than average to keep informed about landlines and the internet. The green line shown in figure 50 representing businesses keeping informed about any of the services shows no significant differences between sole traders and those with 2-5 employees in terms of keeping informed. For each of the three business sizes, it is clear that a substantial proportion do not keep informed at all.

9.23 As mentioned earlier, the overall proportion of small businesses who keep informed has increased since the 2004 study (from 39% to 46%). By size of business, only sole traders show a significantly higher proportion of small businesses who keep themselves informed (at 45% from 37%).

9.24 It might reasonably be expected that owning each type of communications service would have an impact on keeping up with developments, and differences between owners and non-owners are detailed in figure 51 below.

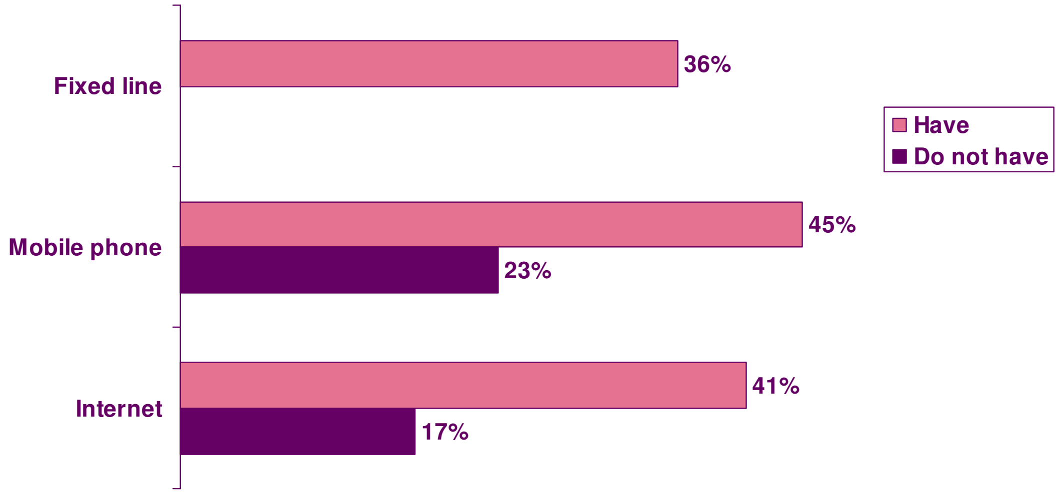
[48] Base: All respondents (301 small businesses) Ofcom Consumer Panel Survey, October/ November 2005, conducted by saville rossiter-base

The figures shown in brackets and in italics for each bar are the comparable findings from the 2004 study.

9.25 Please note, at both waves of this study very few of the businesses interviewed did not have a fixed line phone they used for their business (whether at their business premises or at home), and so the base for non-owners of a fixed line is too small for any meaningful comparison and is therefore not shown.

Figure 51. Keeping informed about communications services developments by ownership of each type of service[49]

Q. Do you tend to keep yourself informed about new developments for any of the following?



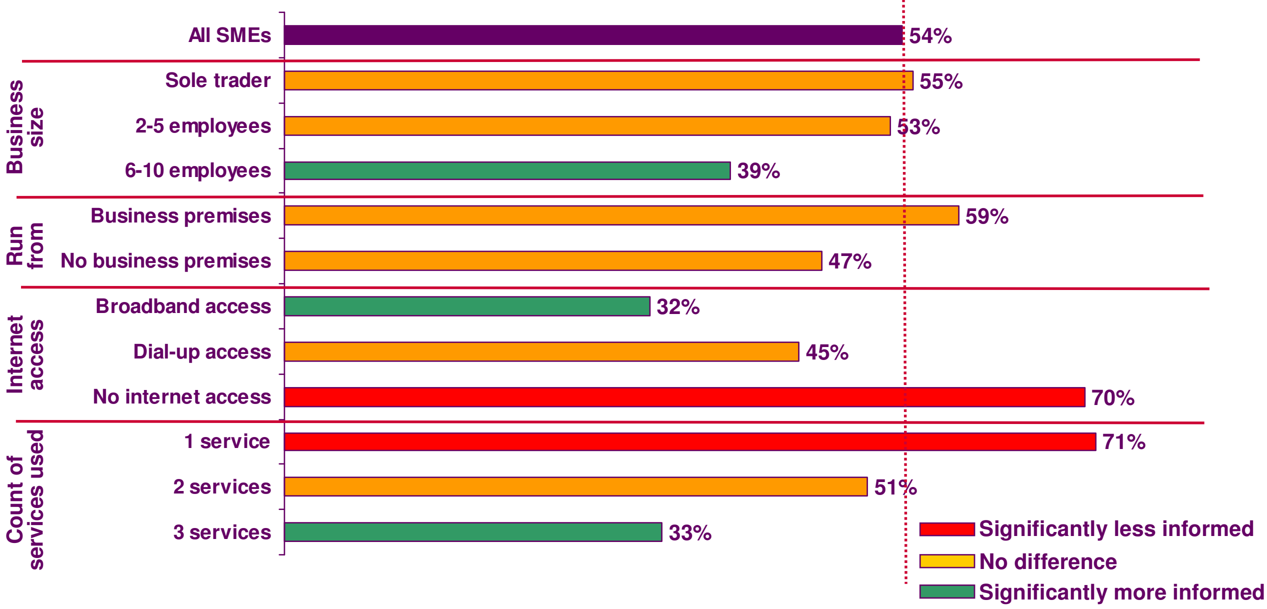
9.26 For each of the three services, small businesses with each service are significantly more likely than non-owners to keep themselves informed about developments for that type of communications technology; with this shown more strongly for mobile phone and internet than for fixed line developments. The gaps between owners and non-owners are at very similar levels to the 2004 survey, due to increases in non-owners (as well as owners) keeping informed for each of the technologies.

9.27 As shown previously in figure 50, larger small businesses are the most likely to keep informed about developments in communications services. Figure 52 below shows the incidence of those businesses who do not keep informed. Those shown in red are significantly less informed and those shown in green are significantly more informed compared to average. Amber bars indicate no significant difference from the overall measure.

[49] Base: All respondents (301 small businesses). Ofcom Consumer Panel Survey, October/ November 2005, conducted by saville rossiter-base

Figure 52. Those who do not keep themselves informed about developments in communications services[50]

Q. Do you tend to keep yourself informed about new developments for any of the following?



9.28 As well as larger small businesses, the types of business significantly more likely to keep themselves informed are those with broadband access to the internet, and those who have all three platforms covered by the study (fixed line, mobile phone and internet access for their business - shown as '3 services' in figure 52 above). Conversely, the types of businesses least likely to keep themselves informed are those without internet access and those using only one of the three services (typically using fixed line only, shown as '1 service' in figure 52). This pattern of the least and most likely to keep informed remains unchanged from the 2004 study.

Learning about technology from others

9.29 Amongst businesses with a dial-up connection to the internet, the proportion who knows someone with broadband access who could show them how it works appears to be unchanged since the 2004 survey; at 62%. Please note, however, that as the number of interviews with dial-up users total just 55 businesses these findings should be treated as indicative only.

Sources of information

9.30 All small businesses were asked to nominate without prompting where they would turn for advice or information on any of the three communications services (fixed line, mobile phone, internet access). Where a first source was recalled, small businesses were then asked where they would turn to next. Figure 53 below shows the proportion of businesses nominating each of five sources of information, and whether each source was nominated as an initial or a secondary source. The green line indicates the responses given by those who

[50] Base: All respondents (301 small businesses). Ofcom Consumer Panel Survey, October/ November 2005, conducted by saville rossiter-base

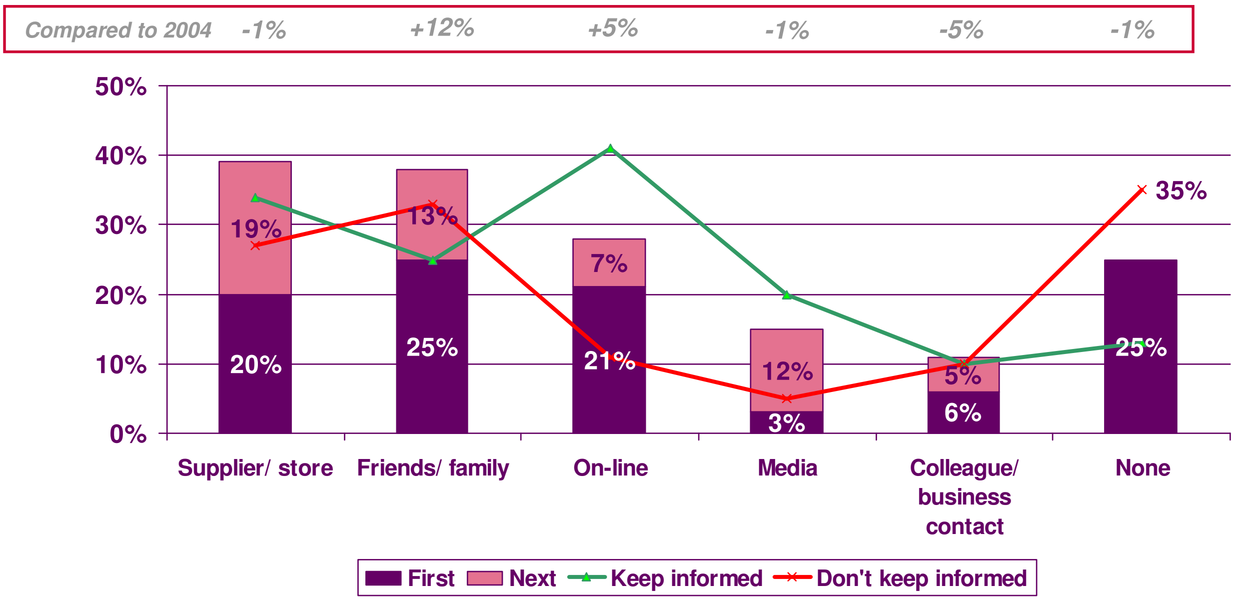
keep themselves informed about developments in communications services, with the red line indicating responses from those who do not keep themselves informed.

9.31 Whereas in the 2004 survey suppliers or stores able to provide communications services were the most popular source of information for small businesses, in the 2005 survey this position is shared due to a significant increase in the proportion saying they would turn to friends and family for information and advice. As in the 2004 survey, those who keep themselves informed of communications services developments are considerably more likely to say they would refer to on-line sources. Again as in 2004, whilst one in ten of those who keep informed could not recall any sources of information, this measure stands at over one-third of those who do not keep themselves informed.

9.32 As noted in the residential section of this report, as cannot identify where 'friends and family' obtain their information it is important to at least consider where these consumers might turn to, when analysing use of other sources. For example, if 'friends and family' are turning to the internet the importance of 'online sources' is increased.

Figure 53. Where small businesses would turn for information and advice on communications services[51]

Q. If you were looking for advice or information on any of these services where would you turn to first? Then where would you turn to for advice or information on any of these services?



[51] Base: All respondents (301 small businesses). Ofcom Consumer Panel Survey, October/ November 2005, conducted by saville rossiter-base

Ownership of communications technology amongst small businesses and sole traders

Introduction

10.1 This section examines ownership levels amongst small businesses and sole traders for the three key communications platforms covered by the study: landline phones, mobile phones, and the internet (and broadband access). Having looked at current ownership levels for each, we then examine changes in ownership levels to understand which types of businesses are driving any increases in ownership.

10.2 We then move on to understand the extent to which those who do not own a particular technology are voluntarily or involuntarily excluded: a positive choice or forced behaviour.

Summary

10.3 Similar to residential consumers, internet ownership has remained virtually unchanged since the 2004 survey while broadband access has increased significantly amongst small businesses; with this increase driven by the largest small businesses (with 6-10 employees).

10.4 Overall levels of ownership of landline and mobile remain broadly unchanged since 2004, although there has been a significant rise in mobile ownership amongst mid-size small businesses.

10.5 Involuntary exclusion from communications technology amongst small businesses remains at negligible levels.

Levels of ownership

10.6 Businesses taking part in the survey were asked whether their business had access to three types of communications technology:

- Landline (whether at their business premises or at home and regularly used to make or receive business calls)
- Mobile phone (owned by the business or with bills paid in full by the business)
- Internet access (whether at their business premises or at home and regularly used in connection with the business)

10.7 Figure 54 below shows the levels of ownership for each of the three key communications platforms plus broadband access for all small businesses, and then the extent to which this overall level of ownership varies by the size of the business. Significantly lower levels of ownership are indicated by downward red arrows and significantly higher levels of ownership are indicated by upward green arrows.

Figure 54. Ownership of communications services by business size[52]

Q. Do you have a landline phone at your business premises that you're able to use to make and receive calls? Q. Do you have a landline phone at home that you regularly use to make or receive calls in connection with the business? Q. Does your business have access to the internet/ World Wide Web? Q. Do you use a broadband internet connection? Q. Does your business own or pay the bills in full for any mobile phones?

	All small businesses	Sole trader	2-5 employees	6-10 employees
Landline	94%	-2	+5	+5
Internet access	50%	-1	-3	+11
Broadband access	32%	+2	-12	+15
Mobile phone	45%	+2	-8	-12

10.8 As stated previously, sole traders account for the majority of all small businesses, and so it is not surprising that ownership levels for the platforms detailed in figure 54 do not vary significantly for this group. The largest small businesses are the most likely to have broadband access for their business, but the least likely to have mobile phones bought or paid for by the business. This might be a reflection of higher use of personal mobiles within larger small businesses.

Landline ownership

10.9 Almost all small businesses have a landline although ownership is lower amongst sole traders (92%) compared to small businesses with between 1-10 employees (99%).

Internet ownership

10.10 Half (50%) of all small businesses have internet access, with two-thirds of these (64%) having a broadband connection; equivalent to one-third (32%) of all small businesses. Broadband access is more common amongst those businesses without business premises; at 72% compared to 58% of those with business premises.

10.11 A total of 55 small businesses with a dial-up connection to the internet were interviewed on the survey. Across these, around one in five are unaware as to whether it is possible to receive broadband in their area; a slight decrease from the 2004 survey. Around one quarter with a dial-up connection state that having broadband access would be a benefit to them. An additional one in ten, however, are unsure as to whether there would be a benefit, with the remainder (around three in five) not seeing a benefit of broadband access.

[52] Base: All respondents (301 small businesses, 150 sole trader, 81 2-5 employees, 70 6-10 employees). Ofcom Consumer Panel Survey, October/ November 2005, conducted by saville rossiter-base

Mobile ownership

10.12 Just under half of small businesses own a mobile for business purposes and, similar to 2004, a quarter of these use prepay rather than a contract phone. By type of business, using prepay is more common amongst sole traders, and those without business premises. These types of businesses are more dependent on their mobile phones given that fewer have a landline. Prepay business customers are also less likely to keep themselves informed about communications services.

10.13 Amongst those with business mobile phones on a contract, one in five do not have a business payment plan for their phone/s. Numbers of interviews with these types of small businesses with mobile phone are small, but it appears that around half of these businesses with personal contracts did not think about or did not know about the option for business payment plans.

10.14 Across all small businesses with business mobile phones, two in five (39%) either use pay as you go or have a personal contract with their phone network. This represents a decrease from the 2004 survey (previously 55%). Both of these payment methods can mean paying more for calls where the phone is being used more heavily.

Changes in ownership

10.15 Ownership levels for business landline and business mobile phones and access to the internet have not changed significantly since the 2004 survey:

- Almost all (94%) have a landline for business use (from 93%)
- Just under half (45%) of all small businesses have any mobile phones owned by or paid for by the business (from 40%)
- Half (50%) of all small businesses have access to the internet for business use (from 47%).

10.16 By business size, the only significant change is an increase in the proportion of mid-sized businesses with any business mobile phones (from 18% to 37%).

10.17 Whilst ownership levels for the internet have not changed to any significant extent since the 2004 survey (from 47% to 50%), broadband access has increased significantly; standing at 32% of all small businesses from 19% in the 2004 survey. Broadband ownership has increased significantly amongst the smallest and the largest business (both increasing by 14% since the 2004 survey).

Multiple platform ownership

10.18 As detailed previously, three key platforms form the focus for understanding ownership for this study; landline phone, mobile phone, and internet access. For the 2005 study, one in four small businesses (26%) own all three of these platforms. Ownership of all three of the platforms covered by the study does not vary significantly by the size of the business; but is significantly more common (at 33%) amongst those with no business premises. Multiple platform ownership has not changed significantly from the measure of 22% from the 2004 study.

10.19 At the other extreme, one in three (33%) small businesses only have a landline; with this being significantly more common amongst mid-sized businesses with 2-5 employees (at 42%). Only owning a landline accounted for 40% of all small businesses in the 2004 study, and so this year's finding is a significant decrease.

Voluntary and involuntary exclusion

10.20 Small businesses without access were asked whether they intend to get each type of communications technology for their business in the next 12 months, and if not, why not. Involuntary exclusion has been defined as those who do not have access, do not intend to get access and have not made this decision through choice. For example, those who do not intend to get access because they don't want or don't need the technology in question have been defined as voluntarily excluded. Those who do not intend to get access because of affordability or lack of coverage in their area have been defined as involuntarily excluded. Those who gave a mix of 'voluntary' and 'involuntary' responses were classed as 'involuntary'.

10.21 Figure 55 illustrates levels of ownership (through having access) across all small businesses for each of the three key technologies, followed by intentions to get in the next 12 months, then levels of voluntary and involuntary exclusion, and finally those who are unsure as to whether they will get the technology in question in the next 12 months.

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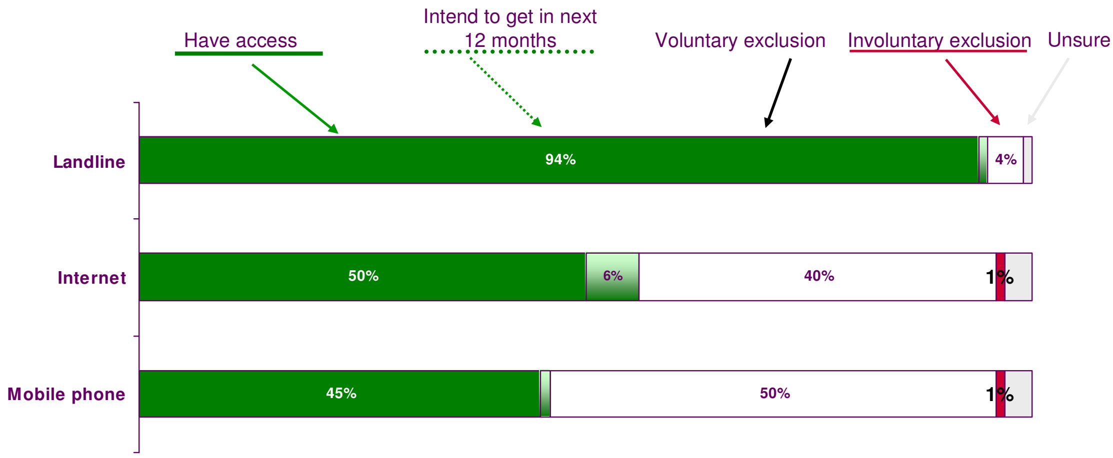
Figure 55. Ownership, intention to get and exclusion levels for communications technology[53]

Q. Do you have a landline phone at your business premises that you're able to use to make and receive calls? Q. Do you have a landline phone at home that you regularly use to make or receive calls in connection with the business? Q. Does your business have access to the internet/ World Wide Web? Q. Does your business own or pay the bills in full for any mobile phones? Q. Do you intend to get [SERVICE] for your business in the next 12 months? Q. Why is that?



10.22 As was also the case in 2004, involuntary exclusion amongst small businesses is negligible; with almost all of those who do not have a particular

[53] Base: All respondents (301 small businesses). Ofcom Consumer Panel Survey, October/ November 2005, conducted by saville rossiter-base

communications technology saying they do not need and/ or do not want the technology in question.

Use of communications technology amongst small businesses and sole traders

Introduction

11.1 In this section we examine the types of uses made by those small businesses and sole traders with the internet and those with any business mobile phones; to understand the breadth of use made by different users and those with broadband internet access. We also look at the self-reported monthly spend by small businesses for the various platforms, and make some comparisons with the 2004 study in this respect.

Summary

11.2 Small businesses with a broadband connection make a broader use of the internet; most notably finding and downloading information for work, purchasing goods and services, banking, and home working.

11.3 Business mobile phone use is limited in breadth; with around one in four with business mobile phones using the phones for anything beyond calls and texts.

11.4 Small businesses say they spend around £40 per month each on landline and mobile services and around £15 per month on the internet. There are indications of a fall in spend on mobiles since 2004.

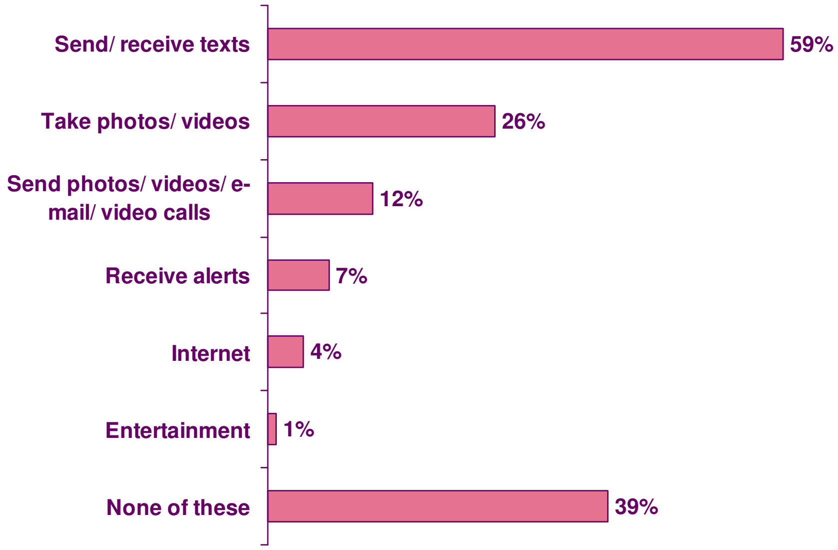
Activities mobile phones used for

11.5 For the first time on this survey, all small businesses with mobile phones owned by or paid for by the business were prompted with a list of 12 possible uses and were asked to say which use their mobile phone or phones for. These different types of uses have been grouped into the six broad groups[54] shown in figure 57 below, which indicates the uses made by all small businesses with business mobile phones. Too few interviews were conducted with those with pay as you go phones (29) for analysis by payment method, and there are also insufficient interviews by business size for further analysis.

[54] Individual responses at Q38AA-Q38AL grouped into six groups as follows. 'Send/ receive texts' – Sending and receiving text messages. 'Take photos/ videos' – Taking photos using the phone, Taking moving pictures using the phone. 'Send photos/ videos/ email/ make video calls' – Sending photos to others using your phone, Sending video messages to others using your phone, Watching videos, Making video calls, Sending or receiving email. 'Receive alerts' – Receiving news alerts. 'Internet' – Accessing the internet, Accessing network content (e.g. O2 Active, Vodafone Live, Orange World, T-zones). 'Entertainment' – Listening to radio.

Figure 56. Uses made of business mobile phones at least weekly[55]

Q. I'm going to read out some things that you may use your mobile phone for. Could you please say how often you use your mobile phone/s for each?



11.6 As shown in figure 57, two in five (39%) of those with business mobile phones do not use the phone beyond making and receiving calls. Of those who are making any of these other uses, most are sending and receiving text messages. Numbers are small, but it appears that those with business premises (more commonly larger businesses) are more likely to make more of these advanced uses of the mobile phone.

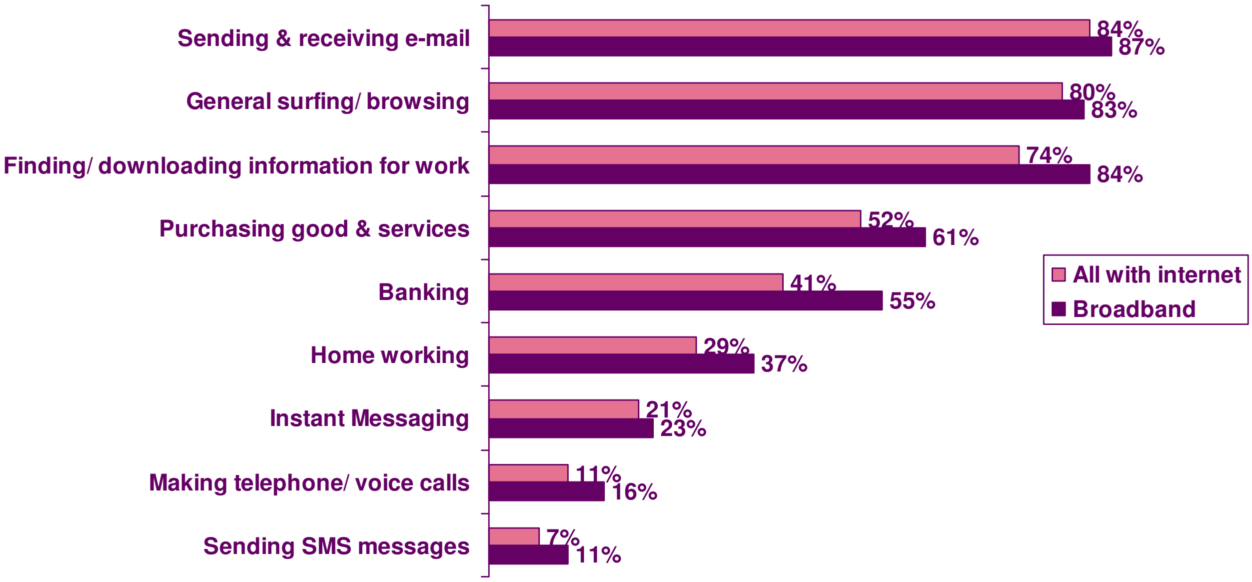
Activities internet used for

11.7 For the first time on this survey, all small businesses with access to the internet for their business were prompted with a list of nine possible uses and were asked to say which they use the internet for. Figure 56 below shows the responses from all businesses with internet access, plus those with broadband access. Figures for those with dial-up access have not been shown due to small base sizes (with just 55 interviews conducted).

55 Base: All with business mobile phones (139). Ofcom Consumer Panel Survey, October/ November 2005, conducted by saville rossiter-base

Figure 57. Uses made of the internet by the business, overall and by broadband users[56]

Q. Which, if any, of these do you use the internet for?



11.8 Four of the nine possible uses are being made by at least half of those with internet access for their business. This overall average rises to five out of nine uses for those with broadband access; to include using the internet for Banking. Other than e-mail, use of the internet for communication (so, Instant Messaging, Voice calls, and SMS) is relatively uncommon.

11.9 Most (62%) of those with a broadband connection previously used another type of internet connection for their business; more commonly an unmetered rather than metered package with a subscription but no call charges. Base sizes are small, but the majority of those who previously used another type of connection nominated any types of uses they were previously unable to do or which were of poor quality with their previous connection.

Spend on business communications

11.10 The spend figures reported here are based on respondent estimates and it is likely that they could vary considerably from the actual figures spent. In addition, the small base sizes for businesses with 2 or more employees using a given service mean that we have only reported on business communications spend for all small businesses rather than by business size.

11.11 Those with access to each of the three types of communications technology were asked to estimate how much they pay per quarter for their landline phone (including line rental, calls, any equipment rental and VAT) and per month for their mobile phone, and internet access.

11.12 On average small businesses say they spend £39 per month on landline services, £42 per month on mobile services and £15 on internet. Spend on communications remains broadly unchanged since 2004 although there are indications of a decrease in mobile spend: down £10 per month since 2004.

[56] Base: All with internet access (169) and with broadband access (114). Ofcom Consumer Panel Survey, October/ November 2005, conducted by saville rossiter-base

Small businesses and sole traders' attitudes towards communications services

Introduction

12.1 In this section we assess the stated importance to business owners and managers of the services and devices they have for their business, and whether these are seen as being any more or less important than was the case in the 2004 study. Similarly, we examine the stated benefit to non-owners of owning the technologies they do not currently have for their business.

12.2 Owners' concerns or worries about the service they have are detailed, along with attitudes towards the costs of services in terms of providing good value. Finally we look at levels of satisfaction and dissatisfaction amongst owners regarding the service they receive.

Summary

12.3 Landline phones and mobile phones are considered essential by significantly higher proportions than consider internet access to be essential; with no significant changes since 2004.

12.4 A clear majority of non-owners do not see a benefit in owning a mobile phone or getting internet access. Significantly higher ratings for potential benefit are given regarding owning a mobile phone for the business; and this appears to be more common amongst sole traders and those who do not have business premises.

12.5 Around a quarter of small businesses in each market expressed worries or concerns; these levels are not significantly different to 2004. The key concerns relate to cost in the telecoms markets (landline and mobile) and security in internet; broadly similar to residential consumers, although unsolicited calls does not appear to be a top of mind concern for small businesses.

12.6 The proportion of small businesses that consider they are receiving 'good value' from their internet and mobile services has declined this year however. This is largely due to increased neutral ratings as opposed to increased negative opinions.

12.7 Small businesses are more dissatisfied with their communications services than residential consumers, with a quarter showing any dissatisfaction for landline and internet services and a third (34%) showing dissatisfaction in the mobile market.

12.8 Dissatisfaction in the mobile market has increased significantly since 2004; driven largely by a fall in satisfaction that suppliers are making sure they are on the best deal. This is consistent with the fall in the proportion of small businesses with mobiles rating them as providing 'good value'.

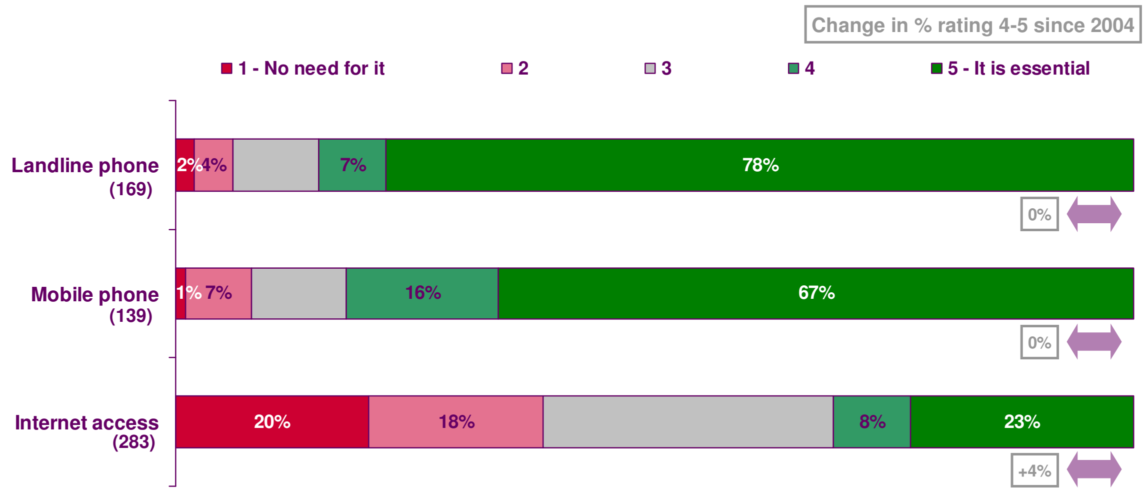
Importance of devices/ services owned

12.9 Small businesses owning each of the types of devices/ services covered by the survey were asked to use a 5 point scale to indicate how much they need each particular device/ service. Figure 58 below shows the overall responses to these questions ranked from least to most important, and also indicates the extent to which the proportion of owners giving the highest ratings (of 4 or 5 out of 5) has changed since the 2004 study. The boxes indicating the change since the 2004 study also show an arrow to indicate where any change is statistically significant.

12.10 Landline phones and mobile phones are considered essential by significantly higher proportions than consider internet access to be essential; with no significant changes since the 2004 study.

Figure 58. Importance of devices/ services owned[57]

Q. What score out of 5 would you give for how much your business needs your [DEVICE/ SERVICE] – where 1 means you have no need for it and 5 means it is essential?



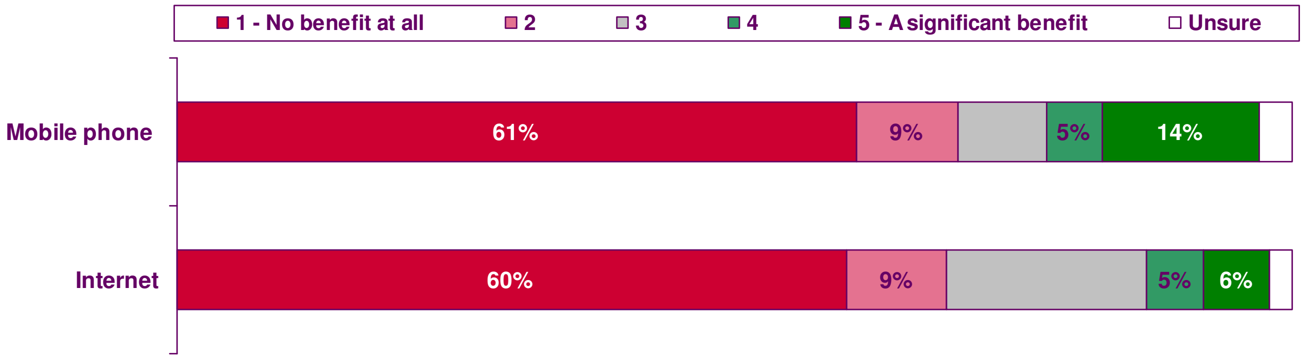
12.11 One in four small businesses with access to the internet rate this service as being essential to them, whereas over two in three with a mobile phone and four in five with a landline phone rate these services/ devices as essential. Those with broadband access to the internet assign a slightly higher rating for the need for their internet service (40% rating 4 or 5 out of 5 compared to 31% of all with the internet), but a relatively small base size means this difference is not statistically significant.

12.12 Those without each of the technologies were asked to say how much of a benefit the technology in questions would be to their business. Figure 59 below shows the responses from non-owners of each of the technologies. Please note, however, as just 18 interviews were conducted with businesses with no access to a landline phone for their business, these responses are not shown.

[57] Base: Those with access to each service for their business. Ofcom Consumer Panel Survey, October/ November 2005, conducted by saville rossiter-base.

Figure 59. Rating of benefit of owning technologies amongst non-owners[58]

Q. What score out of 5 would you give for how much of a benefit having [DEVICE/ SERVICE] would be to your business – where 1 means no benefit at all and 5 means a significant benefit?



12.13 For each of mobile phone and internet access, a clear majority of non-owners do not see a benefit in owning these technologies. Significantly higher ratings for potential benefit are given regarding owning a mobile phone for the business; and this appears to be more common amongst sole traders and those who do not have business premises.

Concerns with communications services

12.14 All small businesses with each service were asked 'What particular concerns or worries do you have about your [service]?'. Responses were unprompted, and figure 60 summarises the overall nominations for each service, the comparable measure from the 2004 survey, and the top nominations for each service.

Figure 60. Concerns or worries for those with access to each service for their business[59]

Q. What particular worries or concerns do you have about your [SERVICE]?

Landline

24% have any concerns or worries (19% in 2004)
- 15% costs
- 2% customer service

Mobile phone

26% have any concerns or worries (29% in 2004)
- 13% costs
- 13% choice/ access/ coverage

Internet

29% have any concerns or worries (29% in 2004)
- 16% security
- 5% spam/ pop-ups/ virus/ control
- 4% costs
- 3% speed of connection

[58] Base: Non-owners for each technology (162 Mobile phone, 132 Internet). Ofcom Consumer Panel Survey, October/ November 2005, conducted by saville rossiter-base

[59] Base: Those with access to each service for their business – 285 landline, 110 mobile phone, 150 internet access. Ofcom Consumer Panel Survey October/ November 2005, conducted by saville rossiter-base

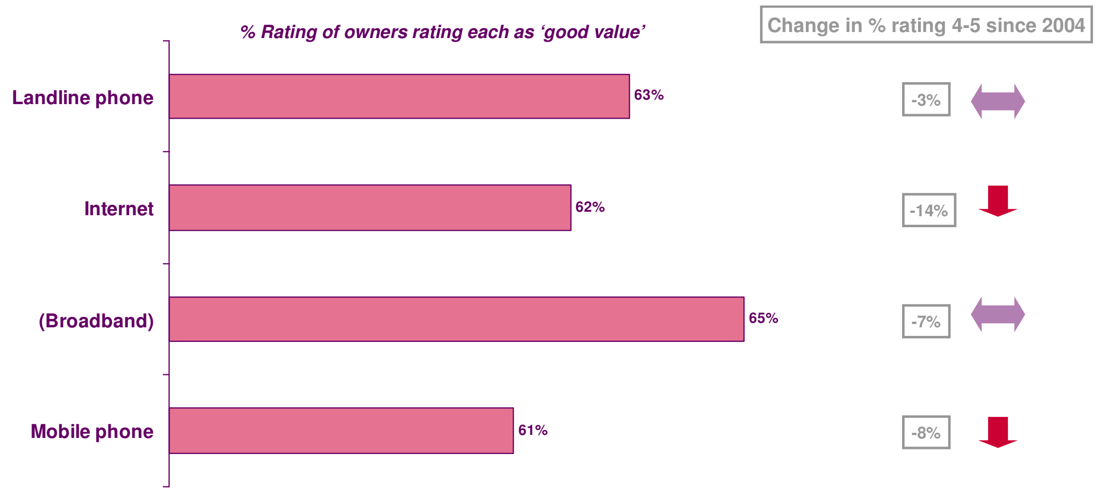
12.15 Around a quarter of small businesses in each market stated concerns or worries about these services, broadly similar levels to 2004. The types of concerns or worries have not changed to any significant extent since the 2004. As was also the case with the 2004 survey, those who are spending more on each service and those who keep themselves informed are more likely to nominate any concerns or worries.

Attitudes towards the cost of services

12.16 All small businesses with each service were asked to use a 5 point scale to rate the cost of the service in terms of providing good or poor value. Figure 61 below illustrates the proportion of those businesses with each service awarding a 'good value' rating (of 4 or 5 out of 5). Changes in this 'good value' rating since the 2004 survey are also indicated, and the services are shown in ranked order of the proportion of owners assigning a 'good value' rating. Please note, the overall rating for the internet is shown, along with ratings given by those with broadband access to the internet.

Figure 61. Services rated as providing 'good value' by those with each service[60]

Q. Which of these options applies in terms of the cost of your [SERVICE]?



12.17 The proportion of small businesses that consider they are receiving 'good value' from their internet and mobile services has declined this year. It should be noted that around one in four with access to each service assigned a 'neutral' rating for the value of the service, which is higher than was the case in the 2004 survey, and accounts for some of the decline in those rating the services as providing 'good value'.

Satisfaction with services/ suppliers

12.18 Levels of satisfaction with the service provided by communications service suppliers are relatively high amongst those with landlines, mobile phones, and internet access. As was also the case in 2004, in terms of the overall service provided, dissatisfied customers account for fewer than one in ten small businesses, with a similar proportion dissatisfied in terms of

[60] Base: Those with access to each service for their business (283 landline, 139 mobile phone, 169 internet access, 114 broadband access). Ofcom Consumer Panel Survey October-November 2005, conducted by saville rossiter-base

understanding bills from their supplier. The aspect of service covered by the survey which found higher levels of dissatisfaction (accounting for between one-fifth and one-third of customers) is 'Your supplier making sure you are on the best of their deals for you'.

12.19 Figure 62 below shows the measures of satisfaction (in green) and dissatisfaction (in red) for each aspect covered by the survey and for each type of technology that small businesses had access to for their business. Please note that those neither satisfied nor dissatisfied with each aspect are not included in this table, and so figures may not add to 100%. The percentage figures shown in brackets indicate the change in satisfaction and dissatisfaction ratings since the 2004 survey, with green and red arrows indicating any significant increases or decreases.

Figure 62. Levels of satisfaction and dissatisfaction with suppliers[61]

Q. How satisfied are you with [SUPPLIER] for each of the following?

	Landline (285)	Mobile phone (139)	Internet (169)
Understanding bills	83% satisfied (+8%) ↑ 7% dissatisfied (-1%)	83% = 5% (+2%)	65% (-3%) 6% (-1%)
Making sure you're on best of their deals	52% (+2%) 23% (+6%) ↑	33% (-16%) ↓ 32% (+9%) ↑	41% (-9%) ↓ 21% (+7%) ↑
Overall service provided	80% (+4%) 7% (+4%)	71% (-2%) 9% (+2%)	63% (-7%) 8% (-1%)
ANY DISSATISFACTION	25% (+3%)	34% (+10%) ↑	25% (+5%)

↓↑ Significant change since 2004

12.20 Small businesses are more dissatisfied with their communications services than residential consumers; with a quarter showing any dissatisfaction for landline and internet services, and a third (34%) showing dissatisfaction in the mobile market.

12.21 Dissatisfaction in the mobile market has increased significantly since 2004 driven largely by a fall in satisfaction that suppliers are making sure they are on the best deal. This is consistent with the fall in the proportion of small businesses with mobiles rating them as providing 'good value'.

12.22 By contrast, ratings for understanding bills and the overall service provided show little change since the 2004 survey. The mobile phone service now attracts the highest levels of dissatisfaction; whereas the 2004 survey showed little difference across the three services overall.

[61] Base: Those with access to each service for their business– 285 landline, 110 mobile phone, 150 internet access. Ofcom Consumer Panel Survey, October/ November 2005, conducted by saville rossiter-base.

12.23 Dissatisfied customers are more commonly those who spend the most each month on the service concerned, and also those more likely to keep informed of developments regarding these communications services.

Switching suppliers amongst small businesses and sole traders

Introduction

13.1 This section assesses small business and sole traders' experience of switching service suppliers, which of these businesses are more likely to have ever switched, and possible checks on tariffs that could be made by mobile phone owners.

Summary

13.2 Switching levels for small businesses are broadly similar to in the residential market, although lower for mobile. The internet is the only market which has experienced increased levels of switching amongst small businesses in the last year.

13.3 Similar to residential consumers, around two in five small businesses with mobiles say they check whether they are on the most suitable tariff for them. This behaviour is more common amongst businesses who say they keep informed and those using contract mobile phones.

Experience of switching suppliers

13.4 Those small businesses with each of the services covered by this study were asked whether (apart from moving premises for landline and internet services) they had ever changed the supplier that they use for each service.

13.5 Whilst a minority of small businesses have ever changed the supplier for communications services for their business, this is most common for the landline service used. One in three (32%) with a landline used for business have ever changed landline supplier; very similar to the measure from the 2004 survey (30%).

13.6 Comparable figures for changing suppliers for business communications services are 24% changing mobile phone network (from 22%), and 18% changing internet service provider (from 24%).

13.7 Experience of having changed supplier tends to be more common amongst those who keep themselves informed of developments in communications services, and those using two or more of the services covered by the survey. Base sizes are too small to look in any detail at those who have changed supplier and report any difficulties in doing so.

Mobile phone tariff checks

13.8 Amongst all small businesses with mobile phones for their business, the majority (59%) said that they ever check whether they are on the best tariff or deal. As might perhaps be expected, checking is more common amongst those who keep themselves informed of developments in communications technologies, and also amongst those who use other services as well as a mobile phone. Base sizes are small for prepay users (29), but there are indications that tariff checks are more likely to be undertaken by those with a contract for their mobile phone/s; as with the consumer study.

13.9 Amongst those who do check whether they are on the best mobile phone tariff or deal (59% of small businesses), around three in five (61%) do so yearly, and the remainder more often than this. Again as with the consumer survey, this would correspond with the renewal process for contract customers prompting an assessment of the tariff.

Annex A

Comparison with Ofcom Research

A1. Ofcom published three core documents between February and April 2006: Consumer Policy consultation, Communications Market Report: Nations and Regions, and the Audit of Media Literacy.

A2. Ofcom conducted extensive quantitative research and in total spoke to over 10,000 UK adults between January and September 2005 which provided the evidence for these reports.

A3. This overview summarises the common themes and some differences between Ofcom's and the Consumer Panel's research.

Ownership of communications services – UK level

A4. The Consumer Panel's research reports that while most residential consumers have access to voice communications use of landlines has fallen. Ofcom's Q4 2005 tracking survey supports this findings although also indicates that ownership of landlines tends to fluctuate quarter on quarter but has remained between 89% and 92% since early 2004. However, a downward trend is indicated and the range of ownership in 2002 to 2004 was between 91% and 93%.

A5. The Consumer Panel study reports that over half of UK homes have access to the internet and a third of these now use a broadband connection. The rise in use of broadband is consistent with Ofcom data which indicates use of broadband has been rising relatively steadily between the two periods of the Consumer Panel research.

A6. Digital TV (DTV) penetration is reported as owned within nearly 7 in 10 UK homes again supported by Ofcom's research. In fact penetration reached 70% of households at the end of 2005 as published in Ofcom's Communications Market: Digital Progress Report.

A7. The Consumer Panel's research identifies relatively small proportions of consumers who say they are excluded from ownership of each of these services, some through choice and others who feel they are being 'involuntarily excluded'. Overall findings are consistent with data collected for the Audit of Media Literacy study and reported in the Nations and Regions report. The Consumer Panel data goes further to report differences in levels of exclusion across socio-demographic groups while Ofcom's Nations and Regions report illustrates where these vary geographically.

Ownership of communications services – national comparisons

A8. Both the Consumer Panel report and Ofcom's Communications Market: Nations and Regions report present consistent findings in relation to take-up of communications services across the nations. For example, both report lower landline penetration in Scotland, lower internet ownership in Scotland, Wales and Northern Ireland, and use of broadband equal to the UK average in Scotland despite lower home internet ownership.

A9. However, due to the difference in timing of these two surveys some national comparison vary. For example, mobile ownership in Wales was lower than average during mid-2005 as reported in the Nations and Regions report but a recent rise in ownership in this nation towards the end of 2005 has taken ownership to the UK average. This recent rise is consistent with findings from Ofcom's Residential Tracking study conducted in Q4 2005.

A10. Another interesting finding, consistent with Ofcom's latest tracking data, is that consumers living in rural communities are now as likely to have broadband internet at home as the UK average. For comparability between these two surveys the Consumer Panel's definition of rural areas is consistent with that used in Ofcom's residential tracking survey.

Satisfaction with telecoms suppliers

A11. As per the 2004 report both the Consumer Panel and Ofcom's Consumer Policy research report relatively low levels of 'dissatisfaction' with telecoms suppliers. However, the Consumer Panel data demonstrates a higher proportion of consumers that are neither satisfied nor dissatisfied with their supplier for landline, mobile and internet services.

A12. Each study reports different levels of satisfaction and while these may have partly been influenced by the different timing of the surveys, the largest influence is the method of questioning. Satisfaction levels reported by Ofcom are *spontaneous* supplier satisfaction influenced only by aspects of service that the consumer remembers at the time of questioning. The Consumer Panel's data reports *prompted* satisfaction which is obtained following a series of questions relating to satisfaction with various aspects of telecoms services. The aspect that appears to have influenced overall satisfaction the most in the Consumer Panel's study is lower satisfaction with suppliers ensuring consumers are on the best deal.

Small and medium sized enterprises

A13. The Consumer Panel's business study focussed on sole traders and small businesses (2-10 employees). Ofcom's research is generally targeted at SMEs with 1-250 employees, small businesses are defined as those with 1-50 employees. As such results between Ofcom and Consumer Panel surveys are not directly comparable.

Annex B
Glossary

3G
Third Generation (3G) mobile systems provide high-speed data transmission and supporting multimedia applications such as full motion video, video conferencing and internet access.

Broadband
An internet service or connection generally defined as being 'always on', and providing bandwidth greater than 128kbit/s.

Digital radio
DAB – Digital Audio Broadcasting is a new transmission signal bringing the benefits of digital technology the radio. DAB technology converts music or speech from analogue signal into digital (binary) code. This vastly reduces the potential for the broadcast to be corrupted during transmission by weather conditions, and other problems that can degrade the quality of reception.

DSO
Digital Switchover.

DTV - Digital Television
Digital Television is a more efficient means of broadcasting than analogue. Images and sounds are transmitted as compressed data, which means that more services can be delivered in less space. This extra capacity (or bandwidth) can then be used to provide extra TV or radio channels. Digital TV also enables transmission of pictures in widescreen format, which will adjust to fit both widescreen TVs or TVs with "squarer" displays. This removes many of the cases where black bands appear at the top and bottom of the screen, or where the picture can appear stretched[62].

ISP
Internet Service Provider - a company that provides access to the internet.

MMS
Multimedia messaging services – the ability to send messages comprising a combination of text, sounds, images and video to MMS capable handsets.

VoIP
Voice over Internet Protocol. A technology that allows users to send calls using Internet Protocol, using either the public internet or private IP networks.

Wi-Fi
Wireless Fidelity – short range wireless technologies which allow an over the air connection between a wireless client and a base station, or between two wireless clients.

[62] Source: A Guide to Digital Television and Digital Switchover, DTI http://www.digitaltelevision.gov.uk/

Annex C

Table of figures