Mobile phone usage

Attitudes towards mobile phone functions including reception

Research Document

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Section 1

Executive summary

1.1 Background

Ofcom has been undertaking a programme of work to bring about improvements in both mobile phone coverage - whether it is possible to receive a mobile signal or not - and mobile phone reception - where although a signal may be present it is not possible to connect or sustain a call or use data services.

As part of this work we have commissioned research to understand the consumer experience. This research will help us understand the extent to which mobile phone reception issues affect consumers and, if so, what types of problems are most prevalent and of most concern. We also wanted to understand the impact of location on the consumer experience including indoor and outdoor locations and also while travelling.

1.2 Key findings

Consumer experience of mobile phone features

- **The two most common uses of a mobile phone are voice calling and text messaging**
- **Amongst those who use mobile data, using the internet on a mobile phone is the most used function on a daily basis**
- **People in urban areas are more likely to use their mobile phones each day for voice calls than those living in rural areas**

Consumer experience of mobile phone reception

- **The ability to make or receive calls or texts is the most important aspect of mobile phone reception**
- **The ability to make or receive calls or texts is claimed to be particularly important for people living in Wales, Northern Ireland and those in rural areas**
- **Good quality voice calls receive the highest levels of satisfaction among the aspects of mobile reception asked about, followed by calls not being cut off**
- **Rural users are more likely than those in urban areas to be very dissatisfied with their ability to make or receive calls**
- **Those living in Scotland report greater levels of satisfaction with quality of voice calls compared to mobile phone users in England**
- **Those living in Northern Ireland report greater levels of dissatisfaction with their ability to make or receive calls and with the quality of voice calls than users in England or Scotland**
- **Over half of users have ever experienced problems with their mobile phone reception**

- **Three quarters of mobile phone users in Northern Ireland have experienced problems with reception**

Making calls in different locations

- **Although regularly visited outdoor places are cited as the most important location to be able to make a mobile call, rural outdoor locations are where there is the greatest gap between levels of importance and levels of satisfaction**

- **The ability to make calls on their mobile phones at home and in rural outdoor locations are claimed to be significantly more important to users in Northern Ireland than anywhere else in the UK**

- **Users in urban areas are significantly more likely than those in rural areas to say the ability to make calls indoors at their place of work or study is important**

- **Compared to 12 months ago, the ability to make calls at home achieves both the highest perceived improvement in satisfaction levels and also the highest increase in levels of dissatisfaction**

- **Users in Northern Ireland are significantly more likely than users in other nations to be less satisfied than they were twelve months ago**

- **Outdoor rural locations are where people are most likely to have ever experienced a problem in making calls, though indoors at home is where they most frequently experience these problems**

- **People in Northern Ireland are significantly more likely to have ever experienced problems in any location than those in the other nations**

Using mobile internet in different locations

- **The most important place for users to be able to access the internet on their mobile is outdoors around places they go to regularly**

- **The ability to use the mobile internet at home shows the greatest proportion of users who are more satisfied compared to twelve months ago**

- **Rural outdoor locations are most commonly cited as the place where users have experienced problems in their ability to access the mobile internet.**

Section 2

About the research

2.1 Background

Ofcom has been undertaking a programme of work to bring about improvements in both mobile phone coverage - whether it is possible to receive a mobile signal or not - and mobile phone reception - where although a signal may be present it is not possible to connect or sustain a call or use data services.

As part of this work we have commissioned research to understand the consumer experience. This research will help us understand the extent to which mobile phone reception issues affect consumers and, if so, what types of problems are most prevalent and of most concern. We also wanted to understand the impact of location on the consumer experience including indoor and outdoor locations and also while travelling.

The findings will enable us to target future work priorities and will provide a framework for future collection and reporting of data on consumers' perceptions of mobile phone reception.

2.2 Objectives

The objectives of the research were to understand the consumer experience of mobile phone reception and the extent of any problems. Specific issues we considered included:

- Being unable to make/connect a call (including if the phone shows 'bars' present)
- Poor sound quality / call breaks up
- Calls ending unexpectedly – not while travelling (when stationary or walking around)
- Calls ending unexpectedly – while travelling e.g. by road/rail
- Being unable to send a text message
- Text message does not arrive or arrives late
- Being unable to access or sustain access to mobile internet
- Being unable to send emails

As part of this we also wanted to understand the impact of location on the experience, including indoor and outdoor locations and also while travelling.

2.3 Methodology

Fieldwork was conducted over two waves of a face-to-face omnibus survey in November 2012. The total sample was 2,136 adults aged 16 and over.

As well as considering the UK population, we also ensured we captured the experiences of specific sub-groups:

- the populations within each of the four nations

- urban and rural areas
- small business consumers (defined as those working within a business employing between one and ten employees)
- regular rail users
- regular road users

Respondents were asked a series of questions in relation to mobile reception on the phone they use most often for personal reasons, or their work phones if they worked for a small business and used their phone for work purposes.

Final data was weighted to be nationally representative with additional rim weights to correct for the rail user and small business boosts.

Significance testing on the 99% confidence level was carried out. This means that where findings are commented on in the report, there is only a 1% or less probability that the differences between the samples is by chance[1].

[1] If a finding is not statistically significant it may be referenced in the report as being unchanged or that it does not differ when compared to another measure, even where the percentages differ by several percentage points.

Section 3

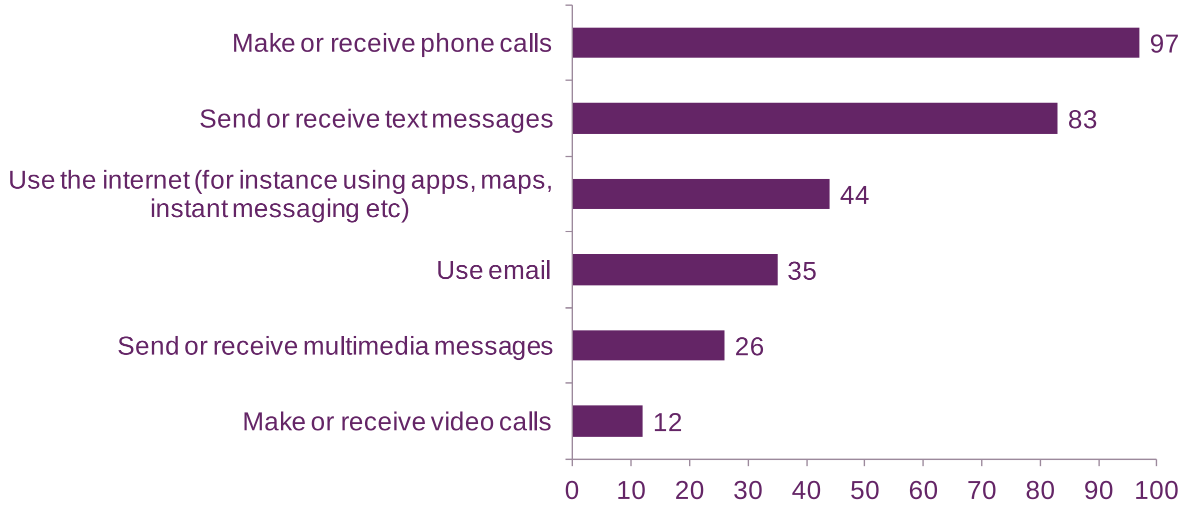
Consumer experience of mobile phone features

3.1 Use of mobile phone functions

The two most common uses of a mobile phone are voice calling and text messaging

Respondents were asked a series of questions about the functions they use on their mobile phones and how frequently they use these functions, set out in Figure 3.1. The majority of people with a mobile phone use it to make or receive calls (97%) with slightly fewer (83%) using it for text messaging. Just over two-fifths (44%) say they use the internet via their mobile phone[2]. Consumers use an average of three functions on their mobile phone.

Figure 3.1: Functions ever used on a mobile phone, all users



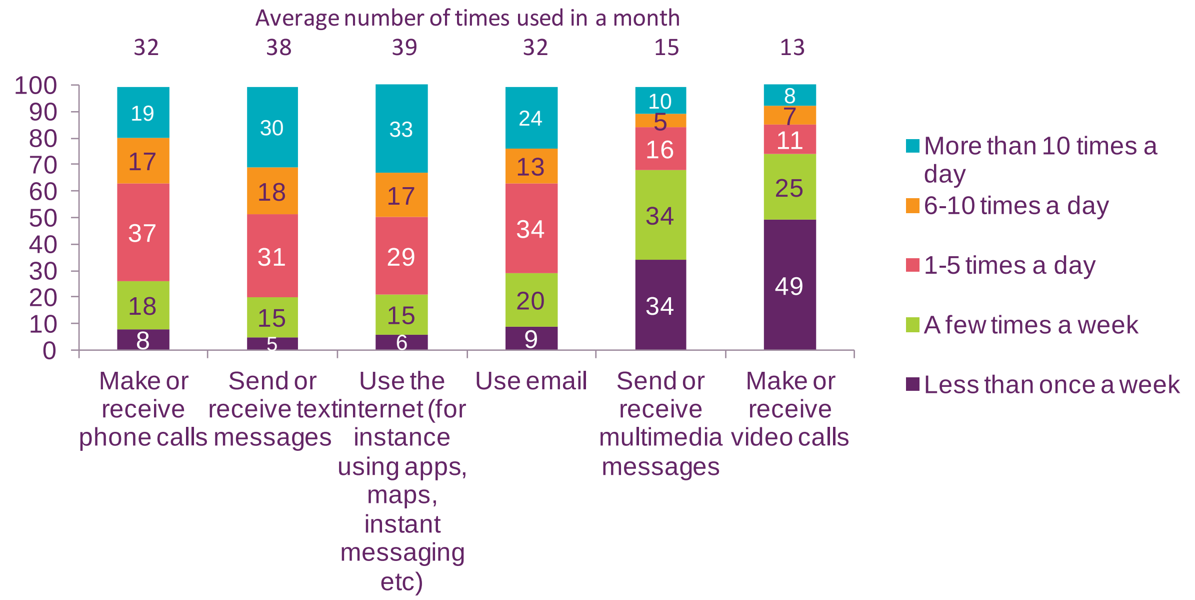
Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=2136)
Q.8: Do you EVER use this phone for any of the following...?

Using the internet on a mobile phone is the most used function on a daily basis

We also asked about the frequency with which they use these different functions, shown in Figure 3.2. Using the internet is the most used function with a third (33%) of people who do this claiming to access the internet more than ten times a day. This is closely followed by those who use it for text messaging with three in ten of these users doing so at least ten times each day. Using a mobile phone for video calling is the least used function with around half (49%) of those who use it this way doing so less than once a week.

[2] This question was used to establish the base of those who used the internet on their phone. This sample was then asked subsequent questions about using the internet this way.

Figure 3.2: Frequency of using functions on a mobile phone

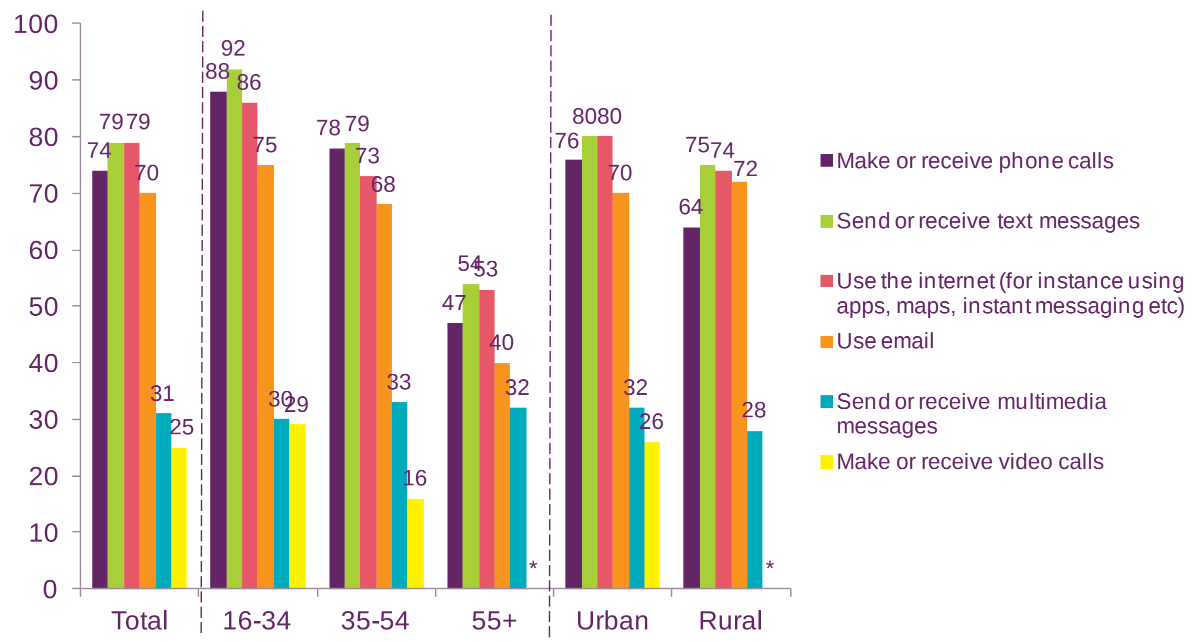


Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who ever use function on mobile phone (N=2061/1726/534/238/900).
Q.9: Generally, how often do you use this mobile phone for...?

People in urban areas are more likely to use their mobile phones each day for voice calls than those living in rural areas

There are some differences in patterns of use by age and by whether the user lives in an urban or rural area. Younger people aged 16-34 are significantly more likely than those aged 35-54 or 55+ to use their phone on a daily basis for voice calls, text messaging and accessing the internet. People who live in urban areas are significantly more likely than those living in rural areas to use their mobile phone for voice calls on a daily basis.

Figure 3.3: Daily use of functions on a mobile phone, by age and urban/rural location



Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who ever use function on mobile phone (N=2061/818/692/626/1757/379)

Q.9: Generally, how often do you use this mobile phone for...?
**Base too small for inclusion*

3.2 Importance of mobile phone functions and services

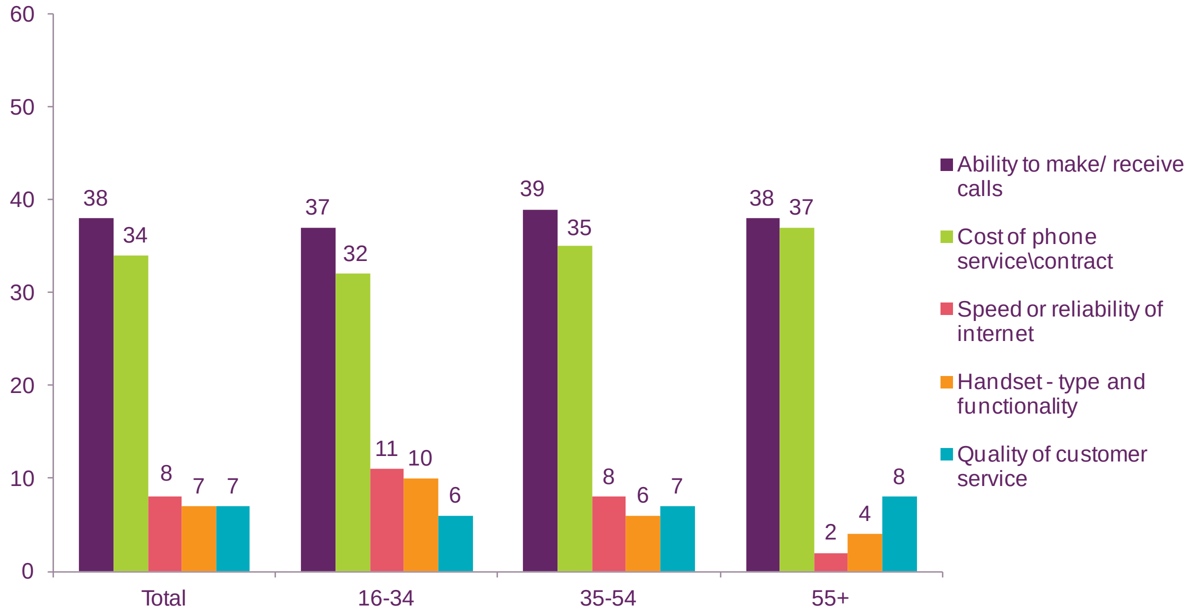
In order to gauge the importance of mobile reception relative to other factors consumers were asked to rate the relative importance of the following elements when thinking about their mobile phone provider:

- Cost of phone service/contract
- Handset - type and functionality (e.g. camera, screen, size, brand)
- Mobile phone reception - the ability to make or receive voice calls or text messages in various locations and while travelling
- Speed or reliability of internet
- Quality of customer service

The ability to make or receive calls or texts is the most important factor when respondents are asked to think about their mobile provider

As shown in Figure 3.4, the ability to make or receive voice calls or text messages is most likely to be rated as most important, cited by 38% of all users, followed by the cost of the phone service or contract, cited by 34%. The internet capabilities of a mobile phone are significantly more important to younger people than to those aged over 55.

Figure 3.4: Most important element when considering mobile provider, by age



Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=2136/818/692/626)
Q.10 And which is the ... important to you when thinking about your mobile operator? Most important.

The ability to make or receive calls or texts is particularly important for people living in Wales, Northern Ireland and those in rural areas

For consumers in each of the four nations, the ability to make or receive voice calls or text messages is the most important factor when asked to think about their mobile provider. In England and Scotland and in urban areas this is followed closely by the cost of the service. However, in Wales and Northern Ireland, and in rural areas, this ability is reported as considerably more important than other features, including price.

Mobile users living in Wales and Northern Ireland are significantly more likely than those in England or Scotland to say that the ability to make or receive calls or texts is the most important factor when choosing a provider (52% and 47% vs. 37% and 34%). Though less important than being able to make or receive calls or texts or than cost, the internet capabilities on a mobile phone offered by a provider are significantly more important for users in Northern Ireland than the overall population (14% vs. 8%)

Users living in rural areas are significantly more likely than those living in urban areas to rate the ability to make or receive calls as most when thinking about their mobile provider (45% v. 37%).

Figure 3.5: Most important element when considering mobile provider, by nation and urban/rural

Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=2136/1743/195/95/103/1757/379)
Q.10 And which is the ... important to you when thinking about your mobile operator? Most important.

3.3 Satisfaction with mobile phone functions and services

Their handset and ability to make or receive calls or texts are the elements with which users are most satisfied

Figure 3.6 shows that the highest level of satisfaction is with the handset compared to the other listed functions and services, with 78% of users either somewhat or very satisfied. This is followed by satisfaction with the ability to make or receive calls or text messages (74%).

The number of people satisfied with the speed or reliability of internet is lower, with 47% either somewhat or very satisfied. However, when filtered by those who use the internet on their mobile phone the proportion saying they are either somewhat or very satisfied increases to 70%.

Though satisfaction with making or receiving calls or text messages is high, it is also the element with which people show the highest levels of dissatisfaction (14%) followed by internet reliability (12%).

Figure 3.6: Satisfaction with different elements of mobile phone functions or services

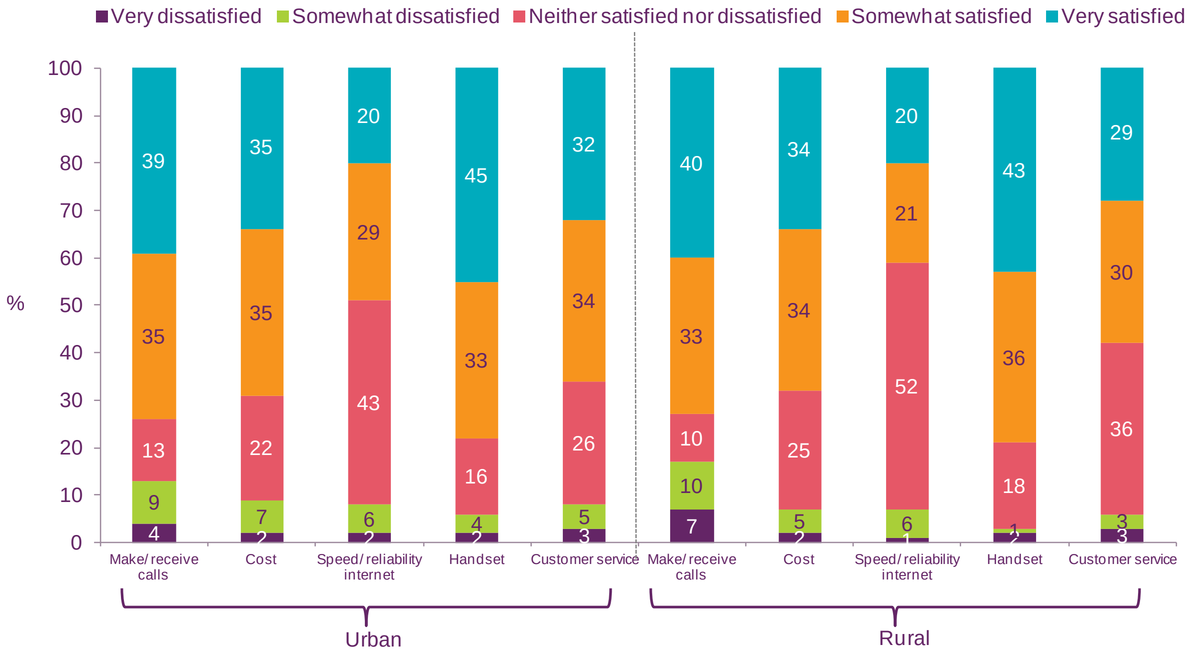
	Very dissatisfied	Somewhat dissatisfied	Neither satisfied /dissatisfied	Somewhat satisfied	Very satisfied
Ability to make/receive voice calls/ text messages	5	9	13	35	39
Cost of service/ contract	2	7	22	34	35
Internet reliability	6	6	45	27	20
Handset	2	3	17	33	45
Customer service	3	5	28	33	32

Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=2136)
Q.11: Thinking about these functions, how satisfied do you feel with each in relation to your mobile phone and mobile services with ...?

People living in urban areas are more likely to be satisfied with the customer service of their mobile phone provider than those in rural areas

Figure 3.7 shows levels of satisfaction for urban and rural mobile users. Urban users are significantly more likely to be satisfied with customer service than those living in rural areas (66% vs. 59%). They are also significantly more likely to be satisfied with the speed or reliability of their internet (49% vs. 41%), driven by significantly more users who are somewhat satisfied (29% vs. 21%).

Figure 3.7: Satisfaction with different elements of mobile phone functions or services, by urban/rural location



Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=1757/379)
Q.11: Thinking about these functions, how satisfied do you feel with each in relation to your mobile phone and mobile services with ...?

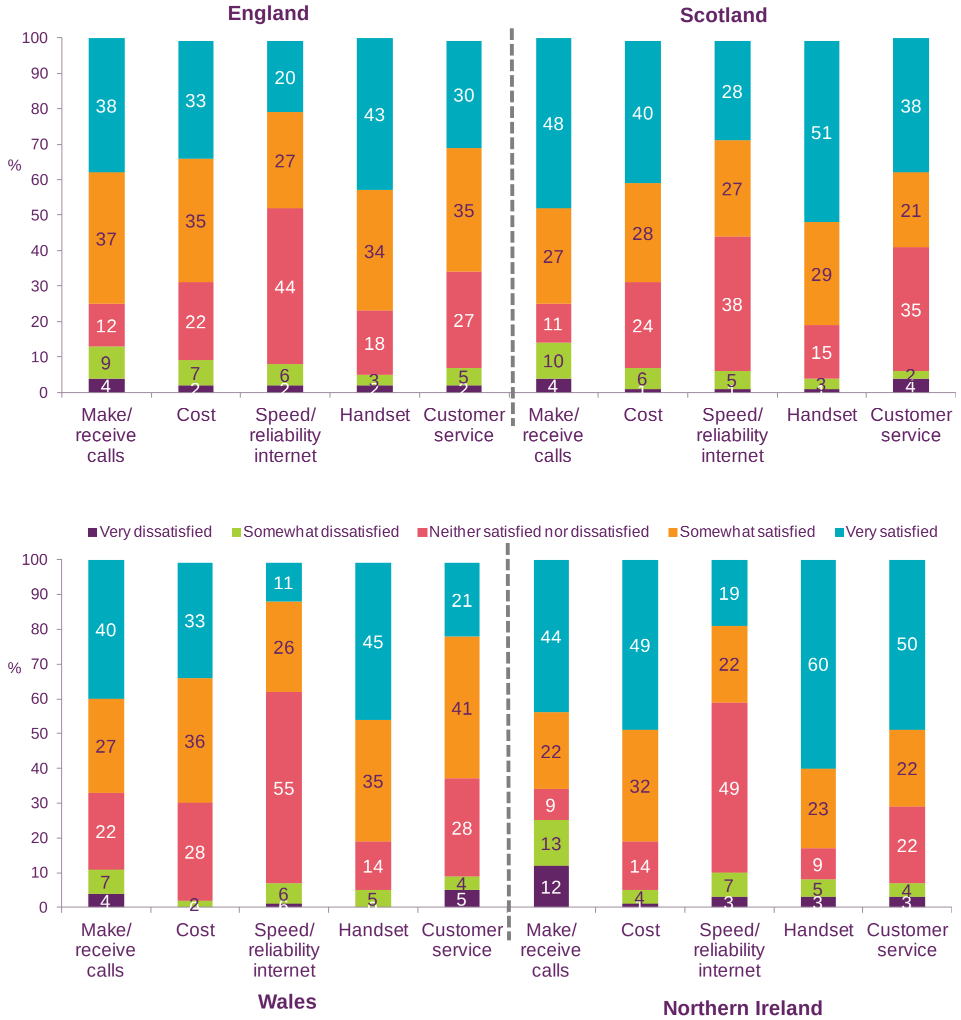
Although people in Northern Ireland are more satisfied than those in England with elements such as cost, customer service and handset, they are more likely to be dissatisfied with the ability to make or receive calls or texts.

Figure 3.8 shows levels of satisfaction by nation. Users in Scotland are significantly more likely than those in Wales to be satisfied with the speed or reliability of the internet (55% vs. 37%), driven by a significantly higher number who are very satisfied (28% vs. 11%).

Users in Northern Ireland are significantly more likely than users in England to be very satisfied with the cost of their phone service or contract (49% vs. 33%), their handset (60% vs. 43%) and the quality of customer service (50% vs. 30%). They are also significantly more likely than users in Wales to be very satisfied with the quality of customer service (50% vs. 21%), as are users in Scotland (38% vs. 21%).

Users in Northern Ireland are significantly more likely than users in England to be dissatisfied with their ability to make or receive calls or text messages (25% vs. 13%), driven by a significantly higher number who are very dissatisfied (12% vs. 4%).

Figure 3.8: Satisfaction mobile phone functions or services, by nation



Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=1743/195/95/103)
Q.11: Thinking about these functions, how satisfied do you feel with each in relation to your mobile phone and mobile services with ...?

We also asked about overall satisfaction. Overall 81% of people are satisfied with their mobile provider and 6% are dissatisfied. There are no differences in levels of overall satisfaction by urban or rural location or by nation.

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Section 4

Consumer experience of mobile phone reception

4.1 Important elements of mobile phone reception

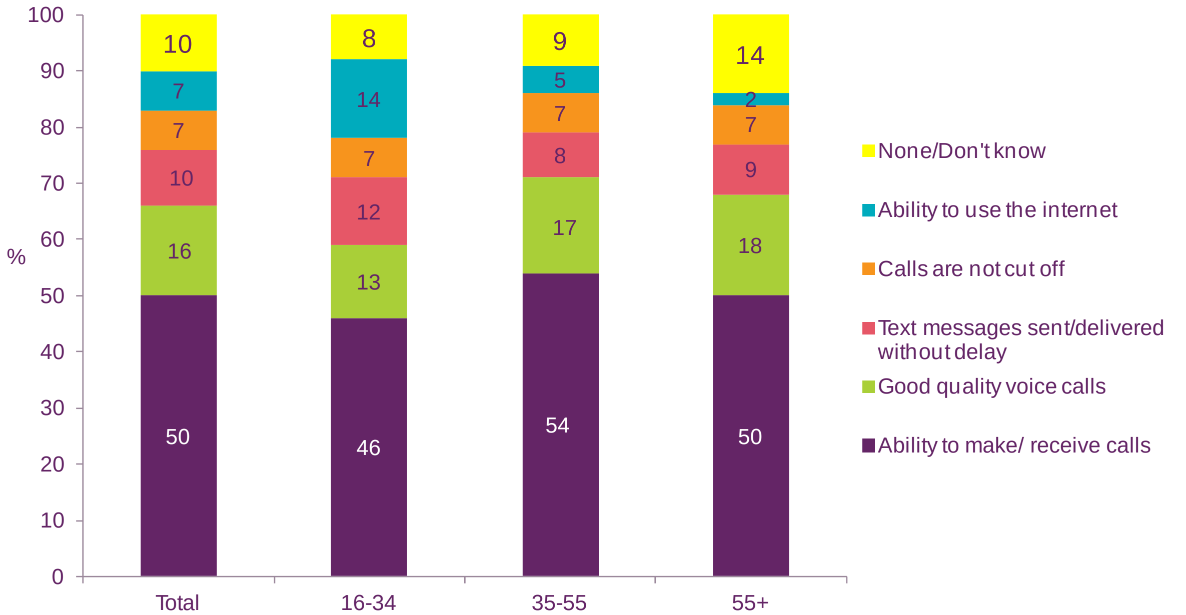
As well as asking about mobile reception within the context of the different functions or services, we also asked in more detail about the importance of and satisfaction with different aspects of mobile reception:

- Mobile reception (ability to make or receive calls)
- Good quality voice calls (can hear clearly and does not break-up)
- Calls are not cut off (before the call is completed)
- Text message sent/delivered without delay
- Ability to use the internet on your mobile

The ability to make and receive calls is the most important aspect of mobile phone reception

As shown in Figure 4.1, the ability to make or receive calls and text messages is considered the most important among all age groups. Ability to use the internet was cited as most important by 7% of users. However, this rises to 14% when filtered to include only those who use the internet on their phone. It is also 14% among 16-34 year olds.

Figure 4.1: Importance of different elements of mobile reception, by age



Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=2136/818/692/626)

Q15: Which of the following aspects is most important to you when thinking about your mobile operator?

The ability to make and receive calls is particularly important for mobile phone users in Northern Ireland and those in rural areas

Mobile users in Northern Ireland are significantly more likely than those in England and Scotland to say that the ability to make or receive calls and texts is the most important aspect of mobile reception (68% v. 49% and 49%).

Rural users are significantly more likely than urban users to say that ability to make or receive calls and text messages is the most important (57% v. 48%). However, urban users are significantly more likely than rural users to say that good quality voice calls are the most important element (17% v. 11%).

Figure 4.2: Importance of different elements of mobile reception when thinking about their provider, by nation and urban/rural locations

Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=2136/1743/195/95/103/1757/379
Q15: Which of the following aspects is most important to you when thinking about your mobile operator?

4.2 Satisfaction with elements of mobile phone reception

Good quality voice calls receive the highest levels of satisfaction, followed by calls not being cut off

Figure 4.3 shows that the element with the highest level of satisfaction is good quality voice calls (78%). This is followed by calls not getting cut off (75%), mobile reception (74%) and text messages sent/delivered without delay (also 74%).

The aspect with the lowest number of respondents saying they were satisfied was using the internet on a mobile at 48%, though this rises to 71% when filtered to only include those who use the internet on their mobile.

Figure 4.3: Satisfaction with different aspects of mobile reception

	Very dissatisfied	Somewhat dissatisfied	Neither satisfied /dissatisfied	Somewhat satisfied	Very satisfied
Ability to make/receive voice calls	3	8	15	38	36
Good quality voice calls	2	6	14	39	39
Texts sent / no delay	2	5	19	35	39
Calls not cut off	2	7	15	32	43
Ability to use internet	2	5	44	26	22

Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=2136)
Q16: How satisfied do you feel with each in relation to your mobile phone reception in the UK with ...?

Rural users are more likely than those in urban areas to be very dissatisfied with their ability to make or receive calls

Rural users are significantly more likely than those in urban areas to be very dissatisfied with their ability to make or receive calls (6% vs. 3%). They are also significantly more likely than those in urban areas to be neither satisfied nor dissatisfied with their ability to use the internet on their phone (55% vs. 42%).

Those living in Northern Ireland experience greater levels of dissatisfaction with their ability to make or receive calls and with the quality of voice calls than users in England or Scotland

Figure 4.4 shows differences in satisfaction between the nations. Users in Scotland are significantly more likely than those in England to be very satisfied with having good quality voice calls (48% vs. 38%) and with having calls that are not cut off (54% vs. 42%). Users in Scotland are significantly more likely than those in Wales to say they are very satisfied with their text messages being sent or delivered without delay (46% vs. 28%) and also with their ability to use the internet (29% vs. 10%).

Users in Northern Ireland are significantly more likely than those in England or Scotland to be very dissatisfied with their ability to make or receive calls (10% vs. 3% and 2%) and with having good quality voice calls (7% vs. 2% and 0%). They are also significantly more likely than those in England to be very dissatisfied with ‘calls not getting cut off’ (6% vs. 2%) and dissatisfied with ‘text messages sent/ delivered without delay’ (15% vs. 6%), driven by a significantly higher number who are very dissatisfied (7% vs. 1%).

Figure 4.4: Satisfaction with different aspects of mobile reception, by nation

Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=1743/195/95/103)
Q16: How satisfied do you feel with each in relation to your mobile phone reception in the UK with ...?

4.3 Problems experienced with mobile phone reception

Respondents were asked if they had ever experienced a range of different problems with their mobile reception, specifically:

- No signal/reception on phone
- Unable to make/connect a call (even though the phone shows 'bars' present)
- Poor sound quality/calls break up
- Call ends unexpectedly

- Unable to send text message
- Text message does not arrive or arrives late
- Unable to use mobile internet
- Unable to send or receive emails

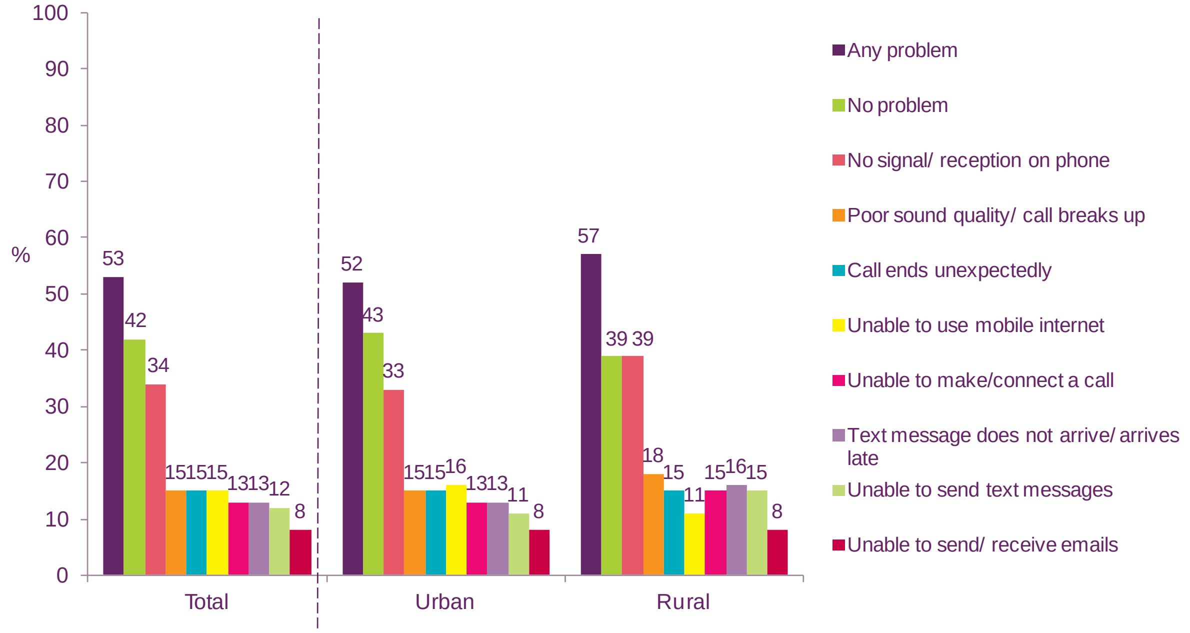
Over half of users have ever experienced problems with their mobile phone reception

As shown in Figure 4.5, just over half (53%) of users have ever experienced any issues with mobile reception, with 12% experiencing four or more problems. The mean number of problems experienced is 2.4.

The most common problem is having no signal/reception on the phone (34%), followed by: poor sound quality/sound breaks up, calls ending unexpectedly and being unable to use the mobile internet (all 15%); being unable to make/connect a call even though the phone shows bars present and text messages that do not arrive or arrive late (both 13%); being unable to send text messages (12%); and being unable to send or receive emails (8%).

There are no statistically significant differences in the likelihood of having experienced these problems between users living in rural and urban locations.

Figure 4.5: Mobile phone users who have ever experienced problems with mobile reception, all users and urban/rural



Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=2136/1757/379)
Q13: Thinking about your mobile reception with ... in the UK, do you ever experience any of the following issues?

Three quarters of mobile phone users in Northern Ireland have experienced problems with reception

Figure 4.6 shows the differences in experiencing problems with mobile reception by nation. Mobile users in Northern Ireland are significantly more likely than those in England, Scotland

and Wales to ever experience a problem (75% vs. 52%, 51% and 60%). Thirty two per cent of people is Northern Ireland have experienced four or more problems.

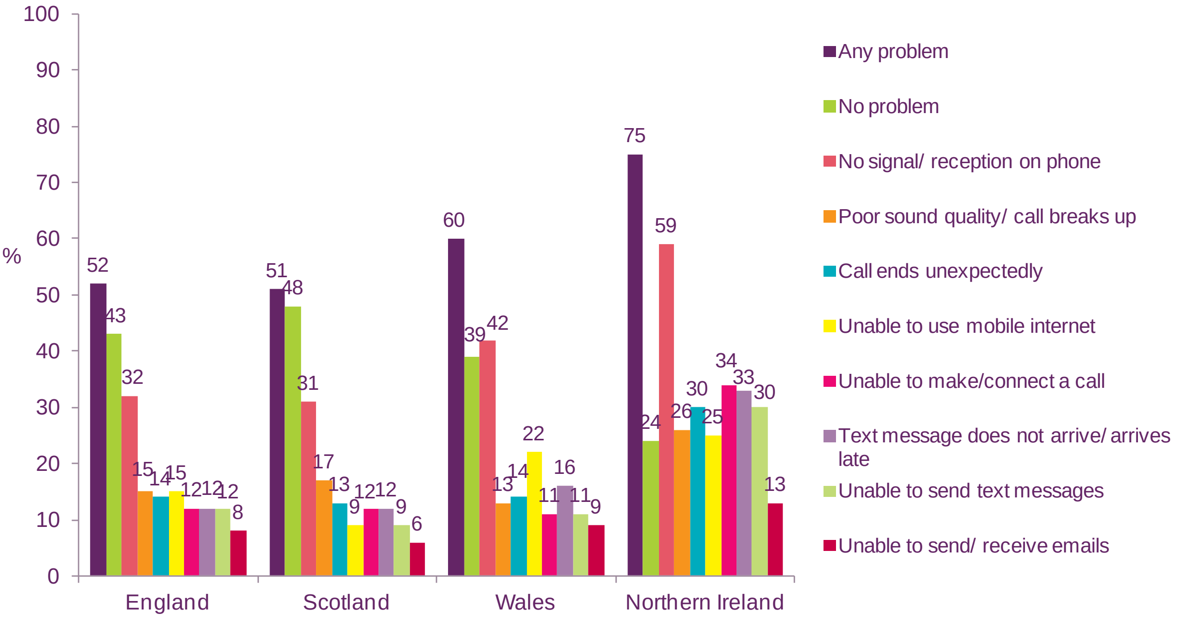
Mobile users in Northern Ireland are significantly more likely than users in England, Scotland and Wales to have experienced: calls that end unexpectedly (30% vs. 14%, 13% and 14%); being unable to make or connect a call (34% vs. 12%, 12% and 11%); a text message that does not arrive or arrives late (33% vs. 12%, 12% and 16%); and being unable to send or receive text messages (30% vs. 12%, 9% and 11%). .

Users in Northern Ireland are significantly more likely than users in England or Scotland to have experienced having no signal or reception on their phone (59% vs. 32% and 31%) and being unable to use the mobile internet (25% vs. 15% and 9%). They are also significantly more likely than users in England to have ever experienced poor sound quality or a call breaking up (26% vs. 15%).

Users in Wales are significantly more likely than those in Scotland to have ever been unable to use the mobile internet (22% vs. 9%).

Users in England and Scotland are significantly more likely than those in Northern Ireland to have had no problems with mobile reception (43% and 48% vs. 24%).

Figure 4.6: Mobile phone users who have ever experienced problems with reception, by nation



Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=1743/195/95/103)
Q13: Thinking about your mobile reception with ... in the UK, do you ever experience any of the following issues?

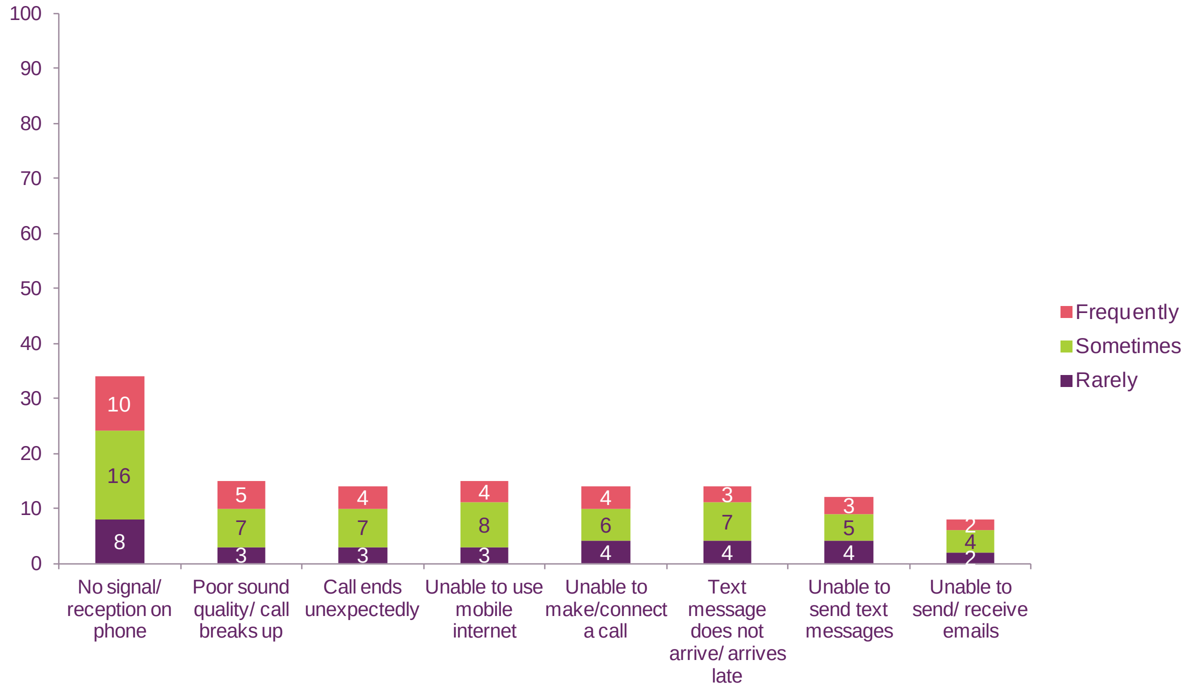
Almost a third of those who have experienced issues with their mobile phones frequently have problems with poor sound quality or calls breaking up

We also asked those who have experienced a problem how often these problems occurred. These users reported similar levels of frequency across the range of problems we asked about. This is illustrated in Figure 4.7.

Having no signal or reception on the phone is experienced most frequently, with 10% of mobile users saying they experience this frequently. The frequency is similar across the other problems we asked about, with between two and five per cent of mobile users frequently experiencing these.

The issues experienced most infrequently are being unable to send or receive emails, reported as being rarely experienced by 2% of mobile users.

Figure 4.7: Frequency of mobile reception problems, all users



Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=2136)
Q14: And how often do you experience these issues with mobile reception?

There are no statistically significant differences in frequency between users in urban and rural areas who have experienced problems. Among the nations the only difference is that mobile users in Northern Ireland are significantly more likely than those in Scotland to frequently have no signal/reception on the phone (24% vs. 5%)

Section 5

Making calls in different locations

Respondents were asked about a range of locations in which they might make calls, how important it was to be able to make calls in these locations and how satisfied they were with their ability to do so. The locations asked about were:

- Indoors at home
- Indoors at work place or place of study
- Indoors in general e.g. building other than work, school or home
- Outdoors around places I go to regularly, e.g. home, work, school
- Outdoors in rural areas
- Outdoors in urban areas
- Reception whilst travelling by road (asked only of respondents who travel by road)[3]
- Reception whilst travelling by rail (asked only of respondents who travel by rail)

5.1 Attitudes to making calls in different locations

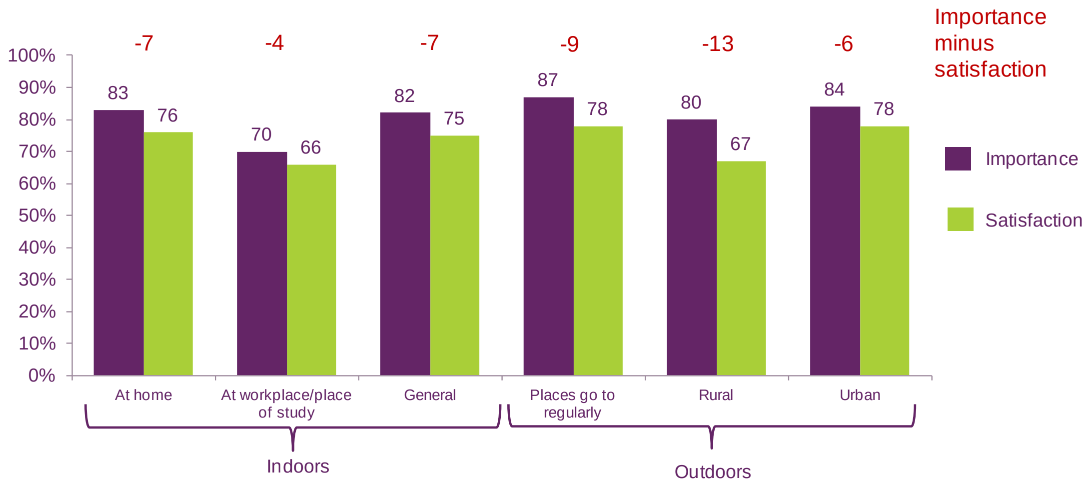
Although regularly visited outdoor places are cited as the most important location in which to be able to make a call, rural outdoor locations are where there is the greatest gap between levels of importance and satisfaction

As shown in Figure 5.1, of all the locations listed users place the highest importance on the ability to make calls in regularly visited outdoor places (87%). Making calls outdoors in urban areas (84%) and also at home (83%) are also seen as important. The highest levels of satisfaction are with the ability to make calls outdoors in 'places I go to regularly' and outdoors in urban areas (both 78%).

Although of lower importance relatively, making calls outdoors in rural areas shows the largest gap between how important this is to users and how satisfied they are (-13%). The location with the lowest importance relatively is from work or a place of study (70%) which also demonstrates the smallest gap in terms of the difference with satisfaction.

[3] Responses to the questions on road and rail are reported in Annex 2: Rail and road users.

Figure 5.1: Importance of and satisfaction with the ability to make calls in different locations, all users



Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=2136)
Q17: How important is it for you to be able to make calls in the following locations?
Q18: How satisfied do you feel with the ability to make calls in each of these locations?

The ability to make calls on their mobile phones at home and in rural outdoor locations are significantly more important to users in Northern Ireland than anywhere else in the UK

Figure 5.2 shows the overall figures for importance of and satisfaction with the ability to make calls in different locations by nation.

The ability to make calls on their mobile phones at home is significantly more important to users in Northern Ireland than anywhere else in the UK with 92% of users here stating that this is either important or very important, compared to 82% in England, 83% in Wales and 86% in Scotland. Making calls outdoors in rural locations is also significantly more important to mobile users in Northern Ireland compared to the other nations in the UK (93% v 79% in England, 84% in Scotland and 87% in Wales).

Users in Wales and Northern Ireland are significantly more likely than users in England or Scotland to say that being able to make a call outdoors around places they go to regularly is important (96% and 94% vs. 86% and 90%).

As with the UK average, the largest gap between importance and satisfaction in each of the nations is for the ability to make calls outdoors in rural locations.

Figure 5.2: Net importance of / satisfaction with the ability to make calls in different locations, by nation

		Indoor			Outdoor		
		Home	Work / place of study	General	Places go to regularly	Rural	Urban
UK	Importance	83	70	82	87	80	84
	Satisfaction	76	66	75	78	67	78
	S-I	-7	-4	-7	-9	-13	-6
England	Importance	82	70	81	86	79	83
	Satisfaction	76	66	74	78	67	77
	S-I	-6	-4	-7	-8	-12	-6
Scotland	Importance	86	71	89	90	84	88
	Satisfaction	80	66	80	82	71	80
	S-I	-6	-5	-19	-8	-13	-8
Wales	Importance	83	73	85	96	87	90
	Satisfaction	77	68	75	84	62	77
	S-I	-6	-5	-10	-12	-25	-13
Northern Ireland	Importance	92	76	91	94	93	90
	Satisfaction	72	58	77	76	70	80
	S-I	-20	-18	-14	-18	-23	-10

Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=2136/1743/195/95/103)
Q17: How important is it for you to be able to make calls in the following locations?
Q18: How satisfied do you feel with the ability to make calls in each of these locations?
Net figures shown for very important/somewhat important and very satisfied/somewhat satisfied

Users in urban areas are significantly more likely than those in rural areas to say the ability to make calls indoors at their place of work or study is important

Figure 5.3 shows importance and satisfaction among urban and rural users. Generally the pattern is similar to that for the UK overall: the most important location for making calls is outdoors around places they go to regularly (88% and 87%) and the largest gap between importance and satisfaction is for the ability to make calls in rural locations.

However, users in urban areas are significantly more likely than those in rural areas to say the ability to make calls indoors at their place of work or study is important (72% vs. 64%), while users in rural areas are significantly more likely to say that the ability to make calls outdoors in rural areas is important (86% vs. 79%).

Figure 5.3: Net importance of / satisfaction with the ability to make calls in different locations, by rural / urban users

		Indoor			Outdoor		
		Home	Work / place of study	General	Places go to regularly	Rural	Urban
UK	Importance	83	70	82	87	80	84
	Satisfaction	76	66	75	78	67	78
	S-I	-7	-4	-7	-9	-13	-6
Rural	Importance	80	64	82	88	86	85
	Satisfaction	74	62	73	76	70	80
	S-I	-6	-2	-9	-12	-16	-5
Urban	Importance	84	72	82	87	79	84
	Satisfaction	77	66	75	79	67	77
	S-I	-7	-6	-7	-8	-12	-7

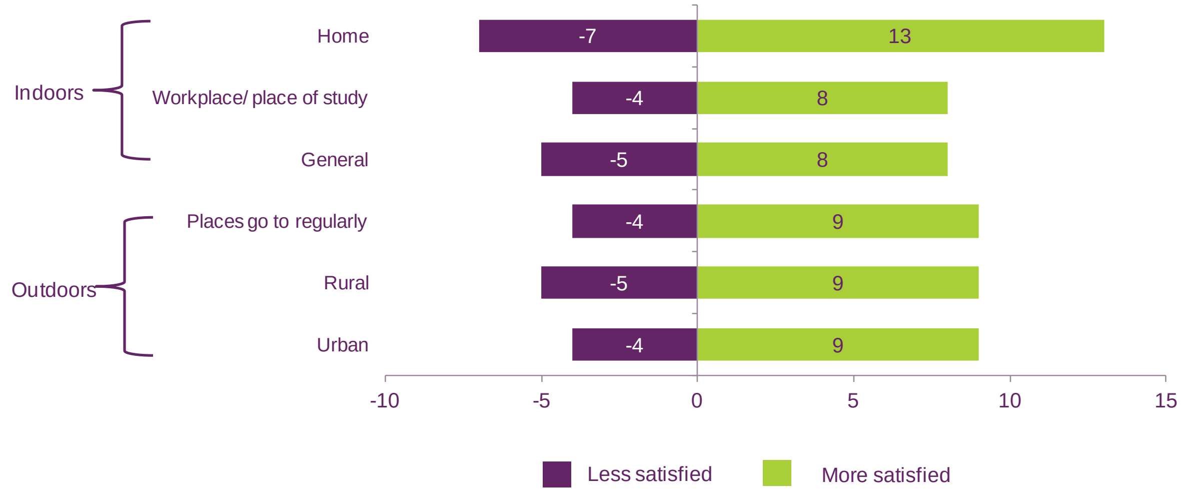
Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=2136/1757/379)
Q17: How important is it for you to be able to make calls in the following locations?
Q18: How satisfied do you feel with the ability to make calls in each of these locations?
Net figures shown for very important/somewhat important and very satisfied/somewhat satisfied

Compared to 12 months ago, the ability to make calls at home achieves both the highest perceived improvement in satisfaction levels and also the highest increase in levels of dissatisfaction

We also asked whether respondents were more or less satisfied with their ability to make calls in each of the locations compared to 12 months ago. The results are set out in Figure 5.4 below. The ability to make calls at home achieves both the highest perceived improvement in satisfaction levels and the highest increase in levels of dissatisfaction. For all locations more people say they are more satisfied than less satisfied with the ability to make calls than they were twelve months ago.

We analysed these findings by whether the respondent had changed provider within the last twelve months. Those who have changed provider in the twelve months prior to the survey are no more or less likely than those who have not to say they are more or less satisfied with their ability to make calls in any of the locations we asked about.

Figure 5.4: Change in levels of satisfaction with ability to make calls in different locations compared to 12 months ago, all users



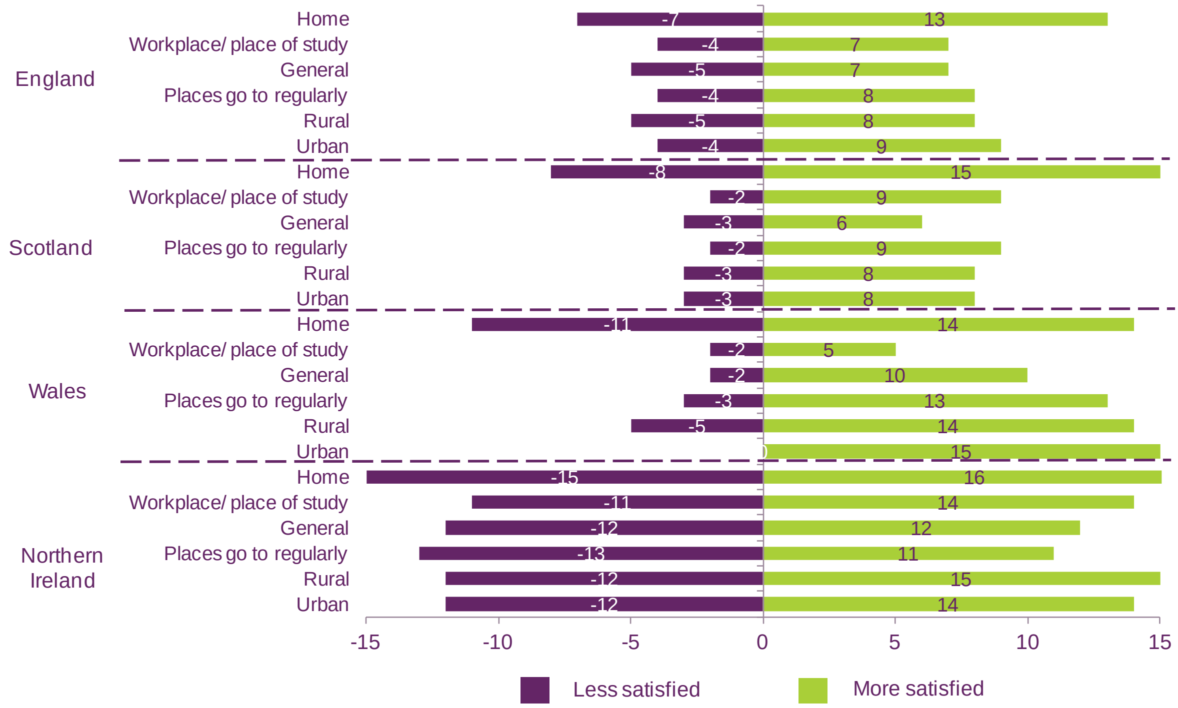
Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=2136)
Q19: Compared to 12 months ago, are you MORE satisfied with the ability to make phone calls with ... in any of the following locations?
Q20: Compared to 12 months ago, are you LESS satisfied with the ability to make phone calls with ... in any of the following locations?

Users in Northern Ireland are significantly more likely than users in other nations to be less satisfied than they were twelve months ago

Compared to 12 months ago there are no significant differences by nation in increased satisfaction with the ability to make calls in any of the locations. However, users in Northern Ireland are significantly more likely than users in other nations to be less satisfied than they were twelve months ago.

Looking at the findings in detail, set out in Figure 5.5 below, we see that users in Northern Ireland are: significantly more likely than users in England to be less satisfied with their ability to make calls indoors at home (15% vs. 7%); significantly more likely than users in England and Scotland to be less satisfied with their ability to make calls indoors at their workplace or place of study (11% vs. 4% and 2%); significantly more likely than users in England, Scotland and Wales to be less satisfied with their ability to make calls indoors in general (12% vs. 5%, 3% and 2%); significantly more likely than users in England and Scotland to be less satisfied with their ability to make calls outdoors around places they go to regularly (13% vs. 4% and 2%) and outdoors in rural areas (12% vs. 5% and 3%); and significantly more likely than users in England, Scotland and Wales to be less satisfied with their ability to make calls outdoors in urban areas (12% vs. 4%, 3% and 0%).

Figure 5.5: Change in levels of satisfaction with ability to make calls in different locations compared to 12 months ago, by nation



Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=2136/1743/195/95/103)
Q19: Compared to 12 months ago, are you MORE satisfied with the ability to make phone calls with ... in any of the following locations?
Q20: Compared to 12 months ago, are you LESS satisfied with the ability to make phone calls with ... in any of the following locations?

There are no statistically significant differences in changes to satisfaction levels between urban and rural mobile users.

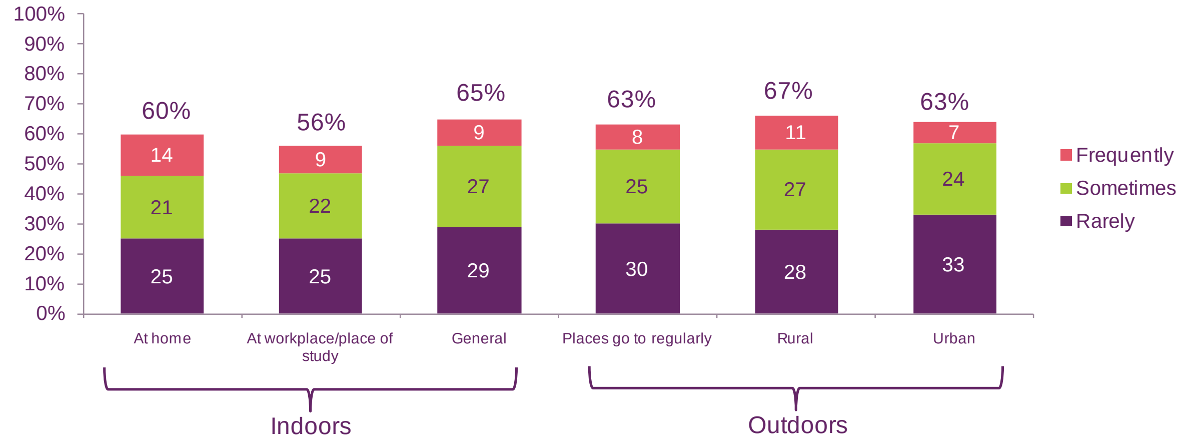
5.2 Problems making calls in different locations

Outdoor rural locations are where people are most likely to have ever experienced a problem in making calls, though indoors at home is where they most frequently experience problems

We also asked respondents how often they experienced problems making calls in the different locations. The location most commonly cited as a place where they have ever experienced problems making a call is outdoors in rural areas, with 67% ever experiencing a problem here and 38% experiencing problems either sometimes or frequently.

The location where people experience problems most frequently is indoors at home, with 13% frequently experiencing problems here. The location where users are least likely to have ever experienced a problem is at their workplace or place of study, cited by 56%.

Figure 5.6: Frequency of experiencing problems making calls in different locations, all users

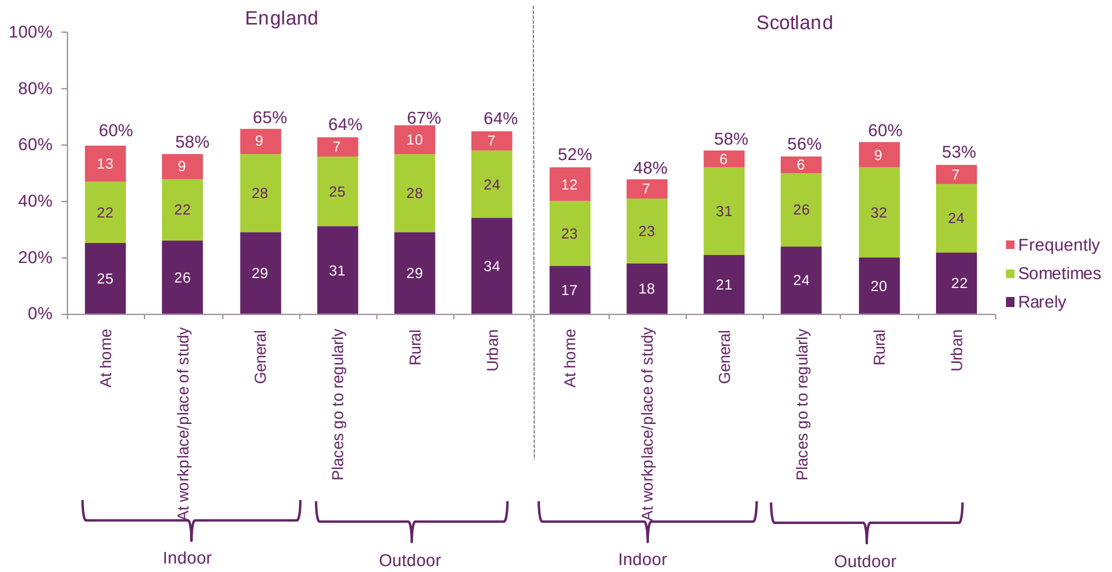


Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=2136)
Q21: Again, still thinking specifically about making phone calls on your mobile through ..., how often, if at all, do you experience problems with making phone calls in the following locations?

People in Northern Ireland are significantly more likely to have ever experienced any problems in any location than those in the other nations

Figure 5.7 sets out the incidence of problems by location across the nations. Users in Northern Ireland are significantly more likely to have ever experienced any problems in any of the locations than users in the other nations. Users in Northern Ireland are also more likely to experience problems on a frequent basis, especially compared to users in England or Scotland.

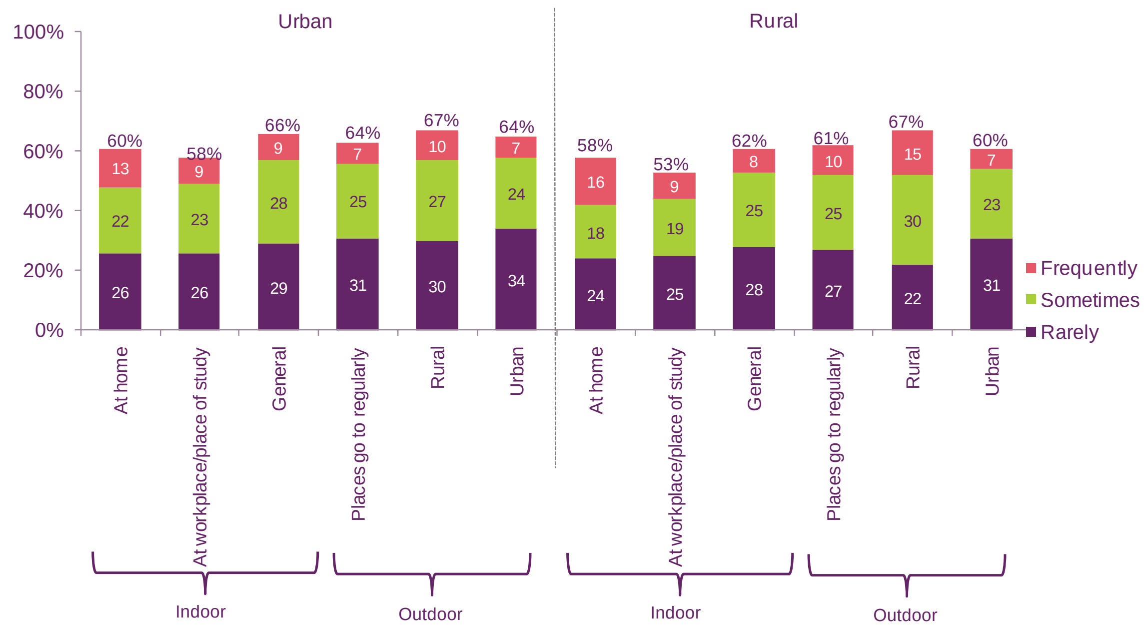
Figure 5.7: Frequency of experiencing problems making calls in different locations, by nation



Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=1743/195/95/103)
Q21: Again, still thinking specifically about making phone calls on your mobile through ..., how often, if at all, do you experience problems with making phone calls in the following locations?

Figure 5.8, below, compares users living in urban areas with those living in rural areas. Although a similar proportion claim to have ever experienced a problem with making calls in outdoor rural locations (67%), those based in rural areas are significantly more likely to experience these problems more frequently.

Figure 5.8: Frequency of experiencing problems making calls in different locations, by urban/rural users



Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone (N=1757/379)
Q21: Again, still thinking specifically about making phone calls on your mobile through ..., how often, if at all, do you experience problems with making phone calls in the following locations?

Section 6

Using mobile internet in different locations

We also asked those who use the internet[4] on their mobile phones about the importance of, and their satisfaction with, using the internet on their mobiles in the same range of locations as for making calls.

6.1 Attitudes to using the mobile internet in different locations

The most important place for users to be able to access the internet on their mobile is outdoors around places they go to regularly

For using the mobile internet satisfaction and importance levels remain around the same for most locations. The highest importance is attached to using the internet on their mobile outdoors around places they go to regularly, with 71% of respondents saying that this is important. The location with the largest gap between levels of satisfaction and importance is outdoors in rural areas with a five point gap, rising to eight points among those living in rural areas.

The only significant difference between rural and urban users is that rural users are significantly more likely than urban users to say that the ability to use the internet on their phone indoors at home is unimportant (28% vs. 17%).

The sample sizes of those who use the internet via their mobile phones in Northern Ireland, Scotland and Wales are too low to be able to make comparisons.

Figure 6.1: Net importance of / satisfaction with the ability to use the internet on their mobile phone in different locations, by all users and rural / urban users

		Indoor			Outdoor		
		Home	Work / place of study	General	Places go to regularly	Rural	Urban
UK	Importance	67	65	68	71	58	65
	Satisfaction	70	64	67	67	53	65
	S-I	3	-1	-1	-4	-5	0
Urban	Importance	68	65	68	71	57	64
	Satisfaction	70	64	67	67	53	65
	S-I	2	-1	-1	-4	-4	1
Rural	Importance	60	65	64	75	61	69
	Satisfaction	69	64	68	70	53	66
	S-I	9	-1	4	-5	-8	-3

[4] When asked about using the internet on their mobile phone in these locations respondents were given the following clarifying statement 'By this we mean using the internet through 3G, 4G, Edge or GPRS and not through WiFi'.

Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use mobile for internet (900/774/126)
Q22: Now thinking specifically about using the internet on your mobile phone through ... By this we mean using the internet through 3G, 4G, Edge or GPRS and not through WiFi. How important is it for you to be able to use the internet in the following locations?
Q23: How satisfied do you feel with the ability to use the internet through ... in each of these locations?

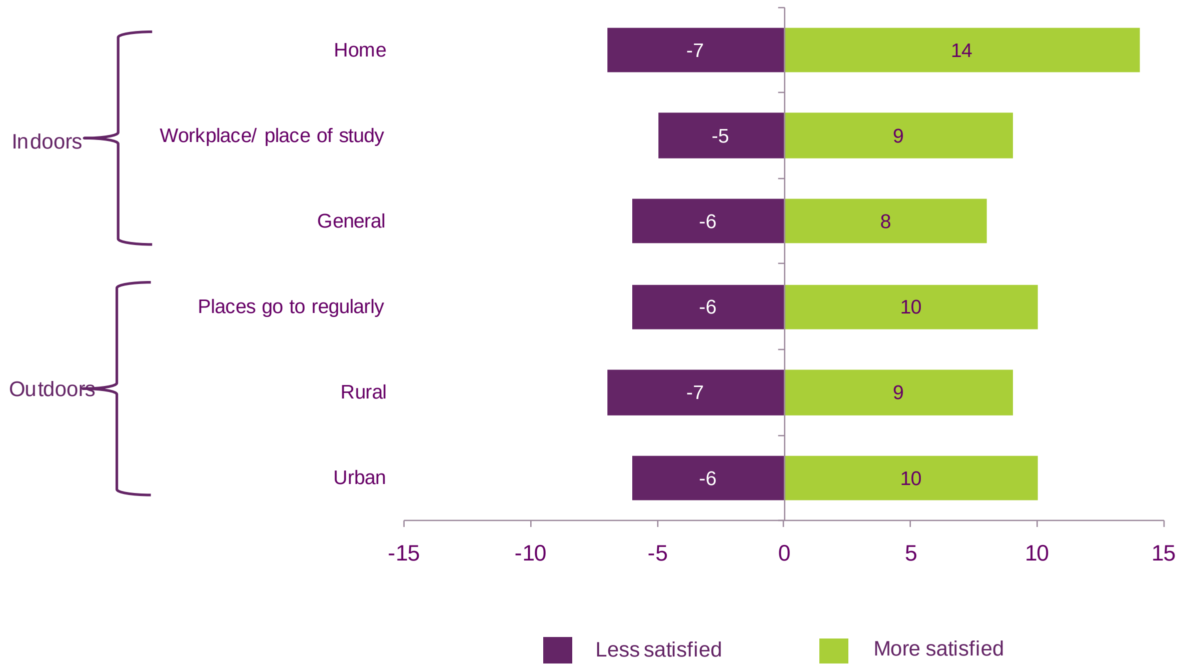
The ability to use the mobile internet at home shows the greatest proportion of users who are more satisfied compared to twelve months ago

We also asked whether respondents who used the internet on their mobile phone were more or less satisfied with their ability to use the mobile internet in each of the locations compared to twelve months ago. In all locations we ask about more people say they are more satisfied than less satisfied with the ability to use the mobile internet. As with the ability to make calls, ability to use the mobile internet at home shows the greatest proportion of users who are more satisfied compared to twelve months ago.

There are no significant differences between urban and rural users in changes to levels of satisfaction compared to the twelve months prior to interview.

We analysed these findings by whether the respondent had changed provider within the last twelve months. Those who have changed provider in the twelve months prior to the survey are no more or less likely than those who have not to say they are more or less satisfied with their ability to use the mobile internet in any of the locations we asked about.

Figure 6.2: Change in levels of satisfaction with ability to use the mobile internet in different locations compared to 12 months ago, all users



Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use mobile for internet (900)
Q24: Compared to 12 months ago, are you MORE satisfied with the ability to use the internet through ... in any of the following locations?
By this we mean accessing the internet through 3G, 4G, Edge or GPRS and not through WiFi.
Q25: Compared to 12 months ago, are you LESS satisfied with the ability to use the internet through... in any of the following locations?

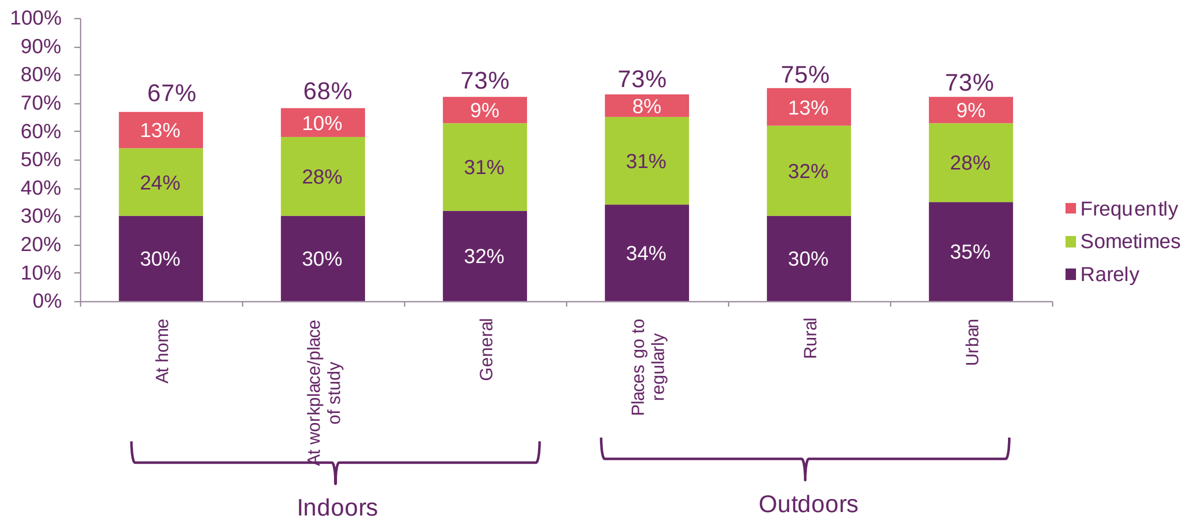
6.2 Problems using the mobile internet in different locations

The location most commonly cited as a place where users have experienced problems in their ability to access the mobile internet is in a rural outdoor place

We also asked respondents how often they experienced problems using the internet on their mobile phones in different locations. Among those who use their mobiles in this way, the location most commonly cited as a place where they have experienced problems is in a rural outdoor place, with 75% ever experiencing a problem here and 45% claiming to experience problems either sometimes or frequently.

There are no significant differences in frequency between urban and rural users.

Figure 6.3: Frequency of experiencing problems using the mobile internet in different locations, all users



Source: Kantar Media omnibus, (14th – 20th November 2012)
Base: All who use a mobile phone for internet (N=900)
Q26: Again, still thinking specifically about using the internet on your mobile phone through ..., how often, if at all, do you experience problems in the following locations?

Annex 1

Small business users

As well as considering the UK population, we also looked at the experiences of small business consumers, defined as those working within a business employing between one and ten employees.

Small business users are significantly more likely than both the general UK population and the UK working population to be male (69% vs. 50% and 56%), to be aged 35-54 (56% vs. 36% and 48%) and to be from the ABC1 social group (63% vs. 52% and 59%).

Any significant differences between small business users compared to the overall population are highlighted below.

- **Mobile phone usage**
  - More likely to use their phones frequently across all functions (55% vs. 40%)
  - More likely to send or receive text messages (90% vs. 83%)
  - More likely to use the internet on their mobile (60% vs. 44%)
  - More likely to use email on their mobile (51% vs. 35%)
  - More likely to send or receive multimedia messages (35% vs. 26%)

- **Satisfaction with mobile phone functions or services**
  - More likely to be dissatisfied with their ability to make and receive calls and text messages (19% vs. 13%)
  - More likely to be dissatisfied with the quality of customer service (14% vs. 6%)
  - More likely to be satisfied with the speed or reliability of their internet (55% vs. 47%)

- **Problems experienced with mobile phone reception**
  - More likely to have experienced any problems (66% vs. 53%)
  - More likely to have experienced no signal / reception (42% vs. 34%)
  - More likely to have experienced problems with calls ending unexpectedly (24% vs. 15%)
  - More likely to have experienced problems with sound quality (22% vs. 15%)
  - More likely to have experienced problems with the ability to use the internet (22% vs. 15%)
  - More likely to have experienced problems with the ability send or receive text messages (15% vs. 8%)

- **Making calls in different locations**
  - More likely to say it is important to be able to make calls in their workplace/place of study (88% v 70%)
  - More likely to have experienced problems with making calls at home (73% vs. 60%)
  - More likely to have experienced problems with making calls at their workplace/place of study (73% vs. 57%)
  - More likely to have experienced problems with making calls from other indoor locations (77% vs. 65%)

- More likely to have experienced problems with making calls from outdoor places they go to regularly (75% vs. 63%)
- More likely to have experienced problems with making calls from outdoor rural locations (77% vs. 67%)
- More likely to have experienced problems with making calls from outdoor urban locations (73% vs. 64%)
- More likely to have experienced problems with making calls whilst travelling by road (73% vs. 65%)

Annex 2

Rail and road users

A sub-sample considered as part of this research was people who regularly travel by car or by rail.

Regular road users account for 78% of mobile users so are demographically very similar to the total population. There are no significant differences between regular road users and the overall population.

However, regular rail users are more likely to include a higher proportion of younger people compared to the overall population which impacts on patterns of mobile use. For example, section 3.2 highlighted that internet capabilities are more important to younger people and that younger people are more likely than older people to use their phone to access the internet**.**

Any significant differences between regular rail users compared to the overall population are highlighted below.

- **Mobile phone usage**
  - More likely to use their phones frequently across all functions (52% vs. 40%)
  - More likely to use their phone for email (47% vs. 35%)

- **Satisfaction with mobile phone functions or services**
  - More likely than all UK users to say they are satisfied with the speed and reliability of their internet (56% vs. 47%)

- **Satisfaction with mobile phone reception**
  - More likely than all UK users to say they are satisfied with the ability to use the internet (57% vs. 48%)

Annex 3

Technical appendix

A. Project outline

Research was undertaken by Kantar Media on behalf of Ofcom during November 2012 with the following core objectives:

- To understand consumers' experience of mobile phone coverage and the impact of any problems with coverage, including small business consumers (1-10) and rail users.
- To understand the extent to which mobile phone coverage issues are a concern to consumers.

B. Data collection

The research was carried out using a face-to-face Omnibus methodology from 14th- 20th November 2012. Kantar's CAPI Omnibus offers the largest weekly face to face consumer survey in the United Kingdom. Each survey interviews approximately c2060 adults aged 16+ and runs twice per week, offering c4120 adult interviews per week.

C. Sample and weighting

Omnibus uses a comprehensive address based system using PAF and CD-Rom, cross referenced to the census data. For each wave, 143 sample points are selected and, within the selected primary sampling points, a postcode sector is chosen. Postcode selection within primary sampling points alternates between A and B halves to reduce clustering effects. All interviews are conducted via the field team and in accordance with strict quality control procedures. Quotas (by sex, working status and presence of children) are set during interviewing to ensure representivity, whilst any sample profile imbalances are corrected at the analysis stage through weighting.

For this specific study we required a nationally representative UK sample, with additional minimum sample sizes of 150 set out for three groups of interest; namely:

1. Regular (use at least once a week) rail users
2. Regular (use at least once a week) road user
3. Small business (1-10 employees) users

Whilst the required sample of road users was achieved through a single wave, a further wave was utilised to boost the samples for regular rail users and small business users. For the second wave respondents were screened accordingly.

The following table displays the breakdown of sample sizes achieved for the key groups of interest:

Group	Incidence	Sample size
Mobile phone users (Total sample)	**90%**	**2136**
Regular road users	78%	1637
Regular rail users	9%	321
Small business users	7%	277

Since the sample was boosted for rail users and small business customers, this naturally created a bias in the overall sample. Imbalances were therefore adjusted through weighting. Additional rim weights were applied for the boosted groups above (rail users and small business users), and this determined by the penetration levels that fell out naturally in the first wave (once initial nat-rep weighting had been applied).

In addition to the above boosts we also conducted an additional wave amongst respondents in Northern Ireland in order to ensure a minimum sample size of 100 for this nation. Again this imbalance was adjusted through weighting.

Two further considerations within the sample were for MNOs (Mobile Network Operators), and for ‘urbanity’ and these fell out as follows:

Network Used	Incidence	Sample Size
Orange	16%	341
T Mobile	9%	203
EE (Everything Everywhere)	7%	149
Any EE (net of three codes above)	33%	693
O2	21%	453
Vodafone	19%	394
3	9%	194
Virgin	6%	122
Tesco Mobile	4%	97
Other	7%	140

Urbanity	Incidence	Sample Size

Urban	82%	3014
Rural	18%	655

D. Questionnaire

Respondent were asked a series of questions in relation to mobile reception on the phone they use most often for personal use, or their work phones if they worked for a small business and used their phone for work purposes. The questionnaire covered the following topics:

- Mobile phone usage (personal, work, both)
- Whether small business user
- Frequency of travel by train (excluding metro/underground)
- Frequency of driving/travelling by road
- Mobile phone network use
- Length of service with mobile network
- Average monthly spend on mobile network
- Functions ever used on mobile phone
- Frequency of using functions on mobile phone
- Importance of factors regarding mobile phone network
- Satisfaction with factors regarding mobile phone network/handset
- Overall satisfaction with network
- Whether experienced reception issues with network
- Frequency experience reception issues
- Importance of factors regarding reception
- Satisfaction with factors regarding reception
- Importance of factors regarding phone calls in locations
- Satisfaction with factors regarding phone calls in locations
- Satisfaction with factors regarding phone calls in locations compared to 12 months ago
- Frequency experience issues with phone calls in locations
- Importance of factors regarding mobile internet in locations
- Satisfaction with factors regarding mobile internet in locations
- Satisfaction with factors regarding mobile internet in locations compared to 12 months ago
- Frequency experience issues with mobile internet in specific locations