

CONSUMERLAB



EMBRACING DATA SHARING

Understanding smartphone users'
perception of shared data plans

An Ericsson Consumer Insight Summary Report
January 2015

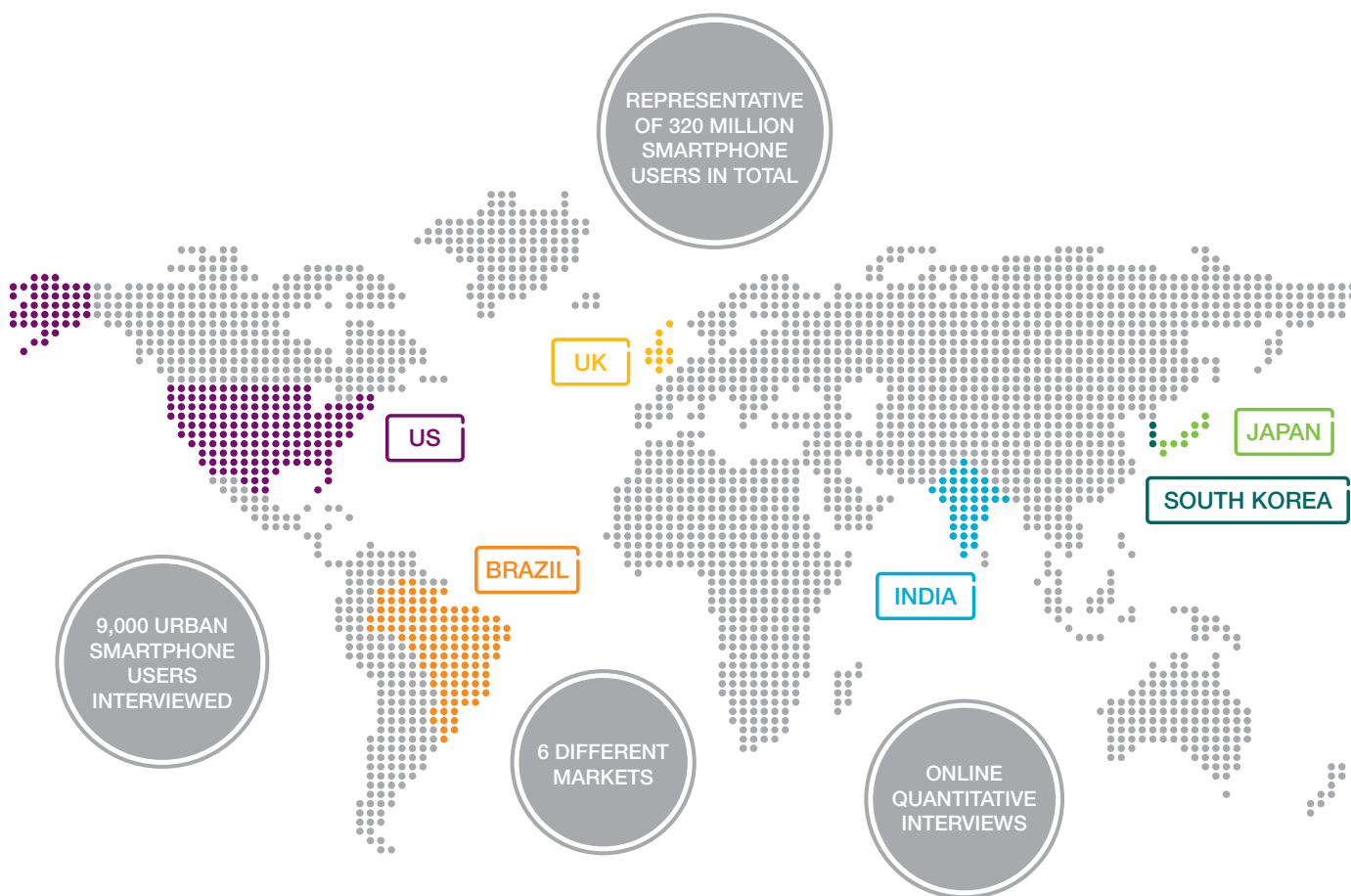
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METHODOLOGY

This Ericsson ConsumerLab report analyzes smartphone users' perceptions of shared data plans. We examine the impact that the introduction of these plans has had on consumer behavior, as well as the specific triggers and barriers to adoption. As mobile data traffic accelerates, we also observe the ways in which consumer expectations around data plans are changing.

The results were gathered through online quantitative interviews carried out in 2014, with a total of 9,000 smartphone users in the US, the UK, Japan and South Korea, as well as a more city-based sample of smartphone users in India and Brazil. Overall, the survey is representative of 320 million smartphone users across these 6 different markets.



THE VOICE OF THE CONSUMER

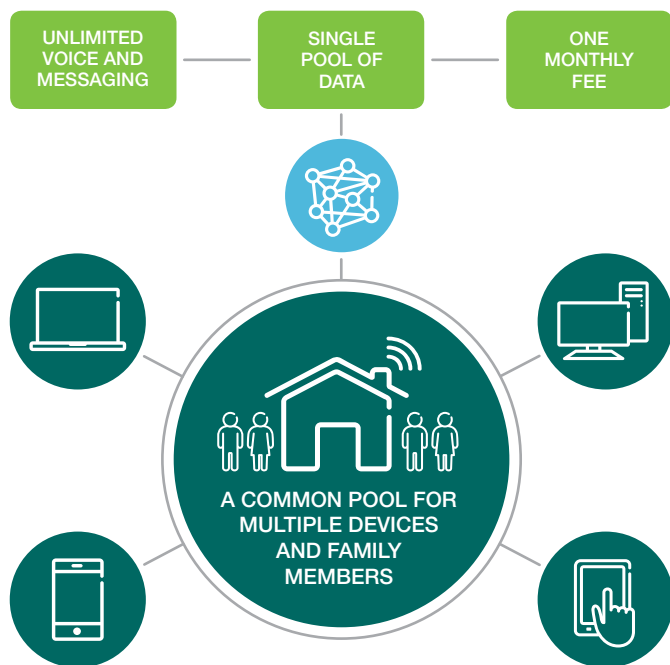
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ALL UNDER ONE ROOF



Mobile data plans are diversifying. In the past, users would traditionally purchase voice and SMS buckets from their operator, but now this pattern is changing. The industry is experiencing a clear shift from voice to data-focused usage.

One of the latest offerings to emerge is shared data plans. Managing numerous connections and devices within one household can be difficult, making it hard for users to keep track of usage. With shared data plans, consumers can connect several devices and multiple users to a single pool of data. They pay a monthly fee based on the amount of data they use, and an additional monthly fee for each device added to the plan. Most consumers also enjoy unlimited voice and messaging as part of their shared plans, with free add-ons such as exclusive media content or cloud storage incorporated in one single bill.

KEY FINDINGS

Digital complexity within smartphone households

- > The increase in connected devices in households and their adoption by multiple users is creating a complex array of different bills and plans. Consumers believe that the introduction of shared data plans can help with solving this complexity

Smartphones form the majority on shared data plans

- > 57 percent of users have only added smartphones to their shared data plan, but around one third of existing users and shared data plan intenders are looking to add tablets and other devices in the future

Value for money could be improved

- > Many users find their mobile internet usage increases when on shared plans. While such plans are considered flexible, two out of five users are dissatisfied with the value for money they offer

Perception creates barriers

- > One third of smartphone users on shared data plans perceive a decrease in speed while sharing and increased costs as the main barriers to widespread adoption

Future users will be different

- > Markets like the US have seen mainstream adult users

with moderate data usage take up shared data plans. In high growth markets it is currently the young, data-hungry power users that are first to take up these plans. In future, we expect to see a 42 percent increase in data-hungry users acquiring shared data plans

Satisfaction means managing expectations

- > Consumers find it hard to decipher shared data plan offerings and need real-time transparency of usage across multiple devices. While ensuring adequate app coverage is critical, 20 percent of existing users and intenders expect new capabilities to be added to shared data plans

DIGITAL CONNECTIVITY CONUNDRUM

Across the six markets surveyed, we can already see that most smartphone users own several connected devices. A typical household has at least six digital devices, including tablets, laptops, PCs and gaming consoles. These devices are usually accessed by an average of three internet users per household.

Growing complexity

Devices require internet connectivity and users rely on a combination of fixed and wireless access. The average smartphone user's household has two mobile internet subscriptions and an additional connectivity option, such as DSL or cable broadband. The growing number of options available is creating a high level of complexity in managing multiple subscriptions.

This complexity will increase as our homes fill with more and different types of connected devices. This is the digital connectivity conundrum. More and more, consumers are expressing the need for a single subscription that allows them to consolidate all their devices.

3
internet
users



6
digital
devices



2
mobile internet
subscriptions



1
additional
connectivity
option

Source: Ericsson ConsumerLab, Embracing data sharing, 2015
Base: 9,000 smartphone users in Brazil, India, Japan, South Korea, the UK and the US

Consumers feel that shared data offerings can help to solve the digital connectivity conundrum. Saving money by consolidating subscriptions into a single plan was cited as the top reason for acquiring a shared data plan.

Other key reasons are the added convenience of having a single bill per household, and the ability to share mobile data from one common pool. Consumers believe this is an efficient way of utilizing data allowances, since some members within the

family easily use up their allowance, where others might not use as much. Other features, such as the flexibility to add and remove members and devices from shared data plans, were also adoption triggers.

Since shared data plans are a relatively new innovation, adoption rates are varied across different markets in the survey, from 26 percent of smartphone users in the US to 5 percent in India and Brazil.

TOP REASONS FOR ACQUIRING A SHARED DATA PLAN



COST

Ability to optimize mobile data spending



FAMILY

Adding members and sharing from a common data pool



DEVICES

Consolidating devices within a single data plan



FLEXIBILITY

Adding or removing devices or family members as required

Smartphones form the majority

On average, three devices are added to shared data accounts. 35 percent of smartphone users indicate they have more devices on a mobile data plan since moving to a shared data plan. This suggests that the number of digital devices is growing in households, and that devices used previously with just Wi-Fi are being carried over to shared data plans.

Despite multiple devices being added, smartphones remain a significant part of shared data plans. Across the 6 markets surveyed, 57 percent of shared data plan users have added just smartphones to their plans.

In the US, 58 percent of the smartphone users surveyed also had a laptop and tablet in their household. However, 77 percent of shared data users added only smartphones to shared data plans. The dominance of smartphones within shared data plans can be observed in Figure 1.

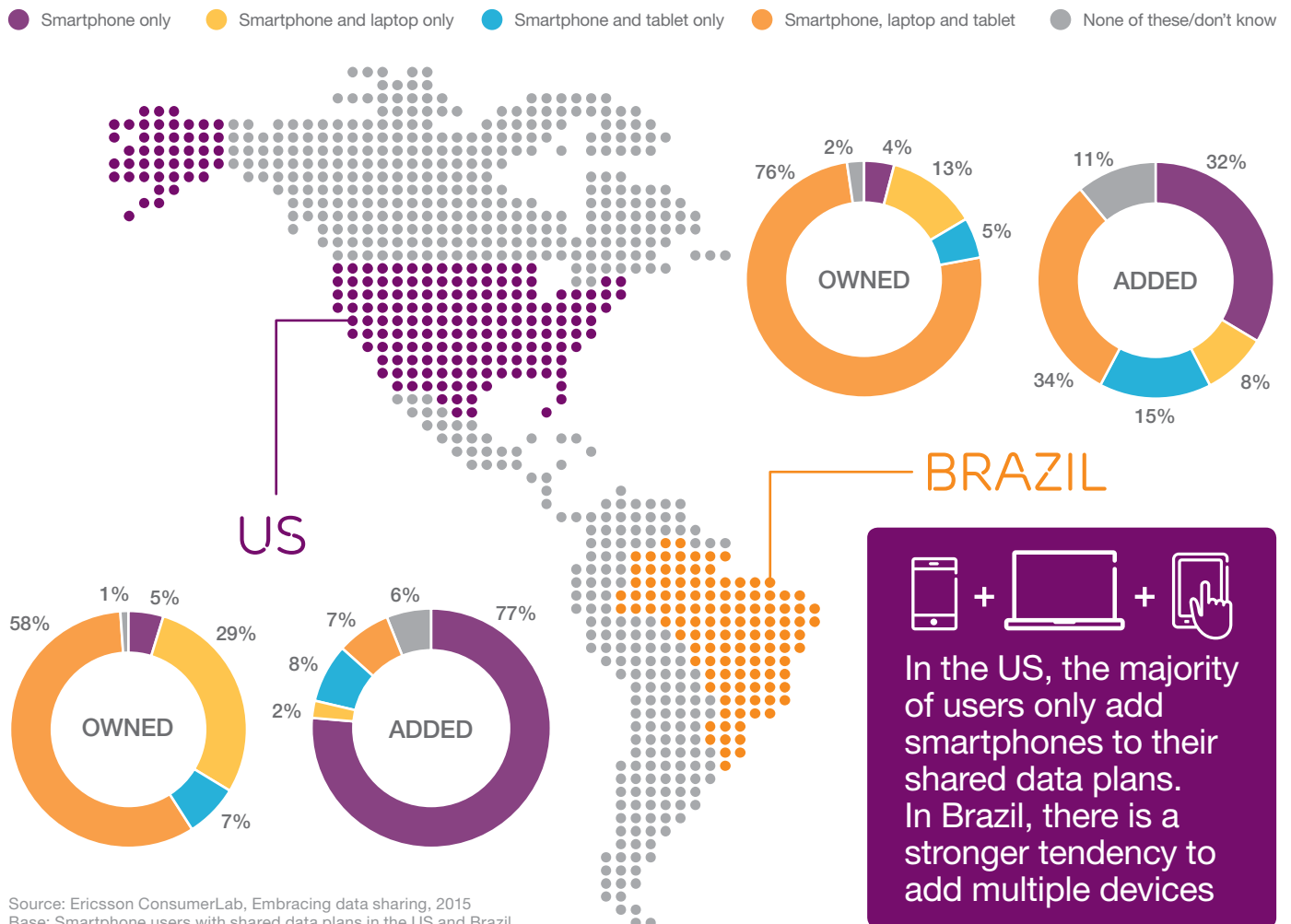
There are many possible reasons for smartphones being the most commonly added device, the most likely being usage location and fear of exceeding data allowances. Tablets and other devices are often used within the home using Wi-Fi access. Some service providers offer tethering as an add-on for

shared data plan users, reducing the need to add more devices to the plan.

Tablets are primarily sold with Wi-Fi capabilities. However, even consumers whose tablets have cellular capabilities tend to favor their Wi-Fi connection.

As shared data offerings evolve and more generous data allowances are offered, consumers' fear of charges is slowly diminishing. 30 percent of shared data plan users and 37 percent of shared data plan intenders expressed an interest in adding tablets to their plans in the future.

Figure 1. Users and devices owned and added to shared data plans



Source: Ericsson ConsumerLab, Embracing data sharing, 2015
Base: Smartphone users with shared data plans in the US and Brazil

ASSESSING THE IMPACT

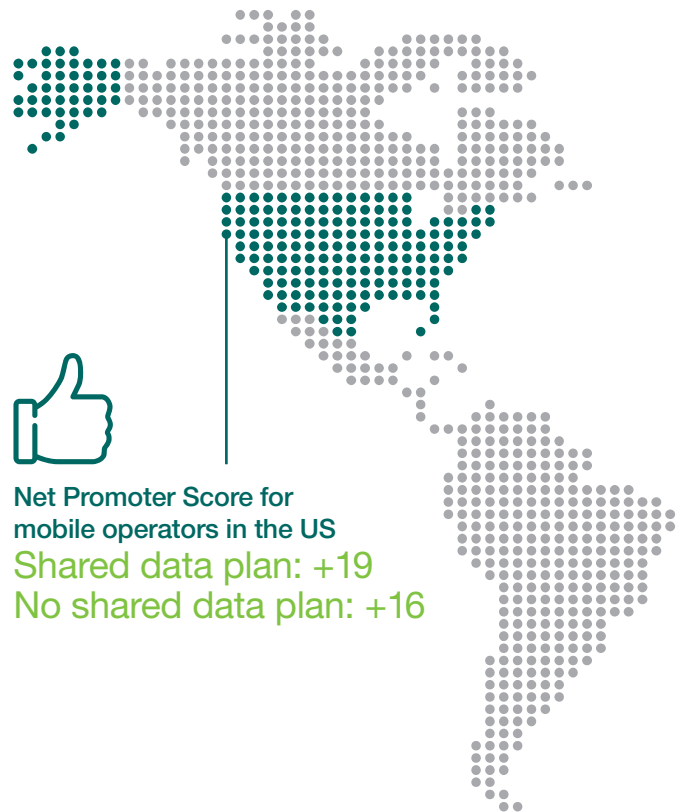
4 out of every 10 smartphone users believe that their mobile data usage has increased since they moved to a shared data plan. This can partly be explained by the fact that consumers are rarely sure of how much data their family needs – so they might buy more on a plan than they would have done individually. 54 percent claim that they have more data capacity available to them on a shared data plan than before. As a result they no longer feel constrained by data caps, so usage naturally increases.



Improved consumer perception

47 percent of shared data plan users believe that these plans are more flexible. These users are also more loyal, with 54 percent indicating that they intend to continue with their plans and existing providers. They tend to have a more positive perception of their operator and higher Net Promoter Scores (NPS), making them more likely to recommend their operator to friends and family.

High levels of satisfaction with shared data plans are partially due to customer profile, particularly for those who switched over from family plans. These users were already familiar with the concept of sharing from a pool of voice minutes and messages, while still paying individually for mobile data plans on each device. According to an Ericsson ConsumerLab survey from 2010, 64 percent of mobile phone users in the US were already on family plans. With shared data plans, they now have unlimited calling and texting, as well as the ability to pay for mobile data across multiple devices in one single bill. Hence, adoption of these plans is a natural step for these users.



Perceived rise in costs

However, while shared data plans provide flexibility and convenience, some users perceive a rise in costs, as evidenced in Figure 2. This perception is particularly visible in high growth markets like India and Brazil, where an average of 58 percent claimed their costs had gone up. In more developed markets like the US and Japan, around one third said the same. Overall, two out of every five smartphone users are dissatisfied with value for money associated with shared data plans. This is one of the main reasons for differing levels of adoption across markets.

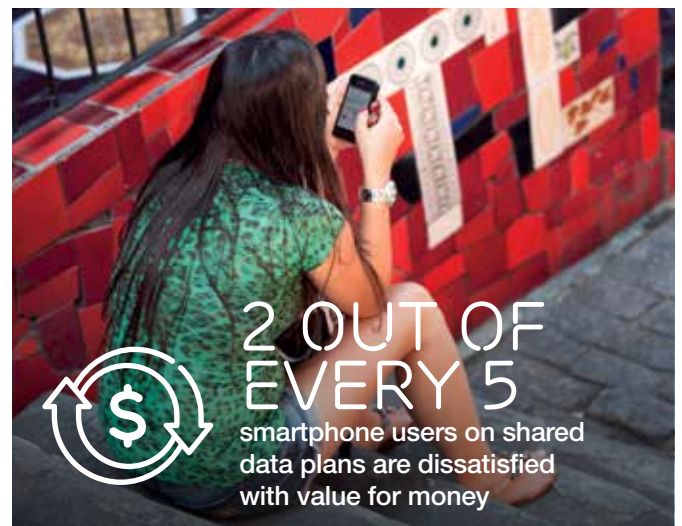
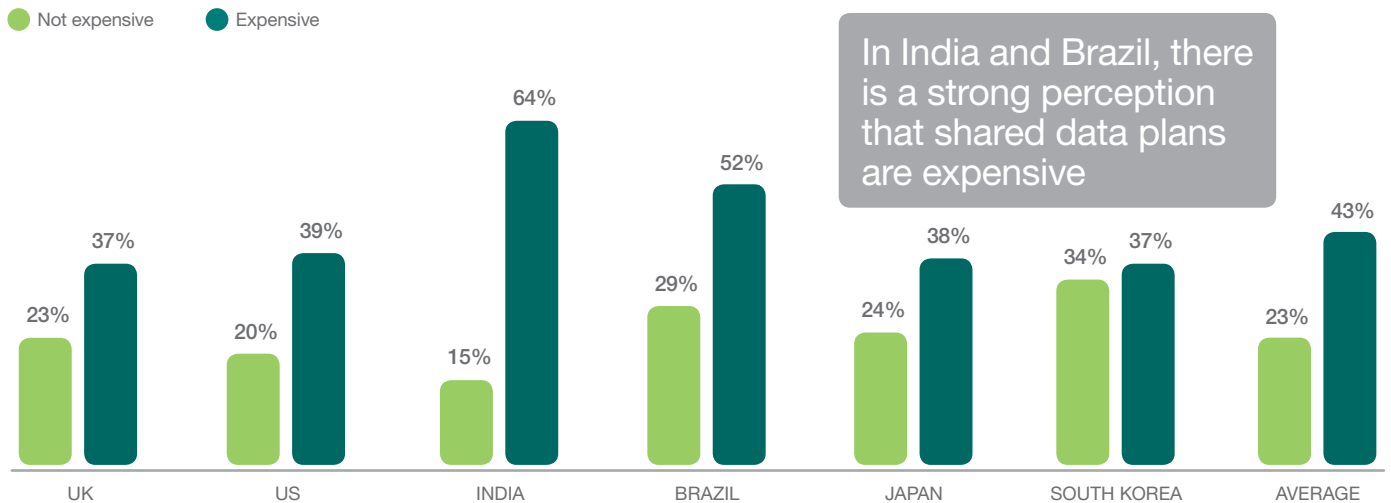


Figure 2. User perception of cost level since changing to a shared data plan



Source: Ericsson ConsumerLab, Embracing data sharing, 2015
 Base: Smartphone users with shared data plans in Brazil, India, Japan, South Korea, the UK and the US

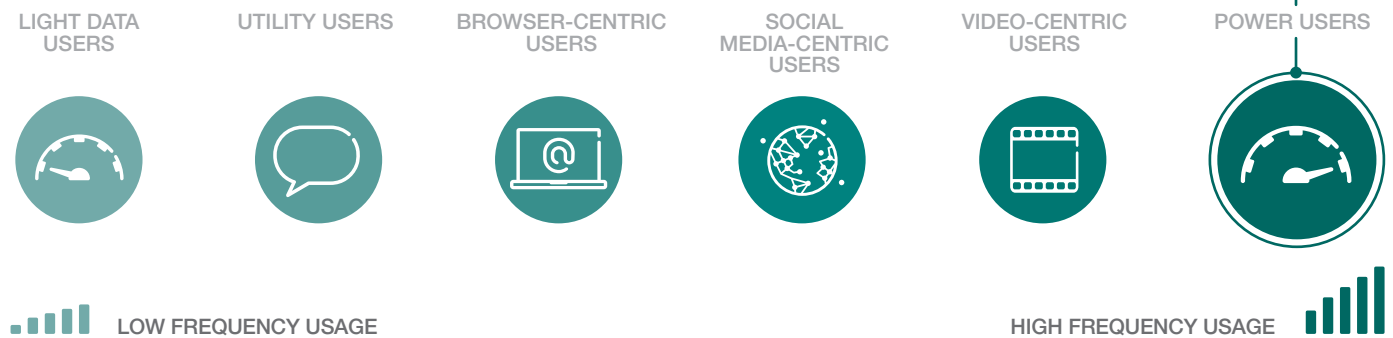
Who are shared data users?

Shared data plans are no longer exclusive to families. While the majority of users share the common pool of data with immediate family members, in some cases data sharing goes beyond the family. In the US for example, 15 percent of existing shared data users split their data allowance with others outside the family.

In order to understand the profile of existing shared data users, smartphone users can be segmented into six different user groups based on what type of applications and services they use on their phones, and how often they use them. Based on 23 application usage frequency questions, the 6 user groups were categorized from the heaviest users of applications – power users – to light data users who exhibit sporadic app usage. Some 10 percent of all smartphone users in the US were power users, and this group represented 11 percent of the total in the UK.



Power users consume twice as much data on average per month than other smartphone users



FUTURE OF MOBILE DATA SHARING

Different markets, different realities

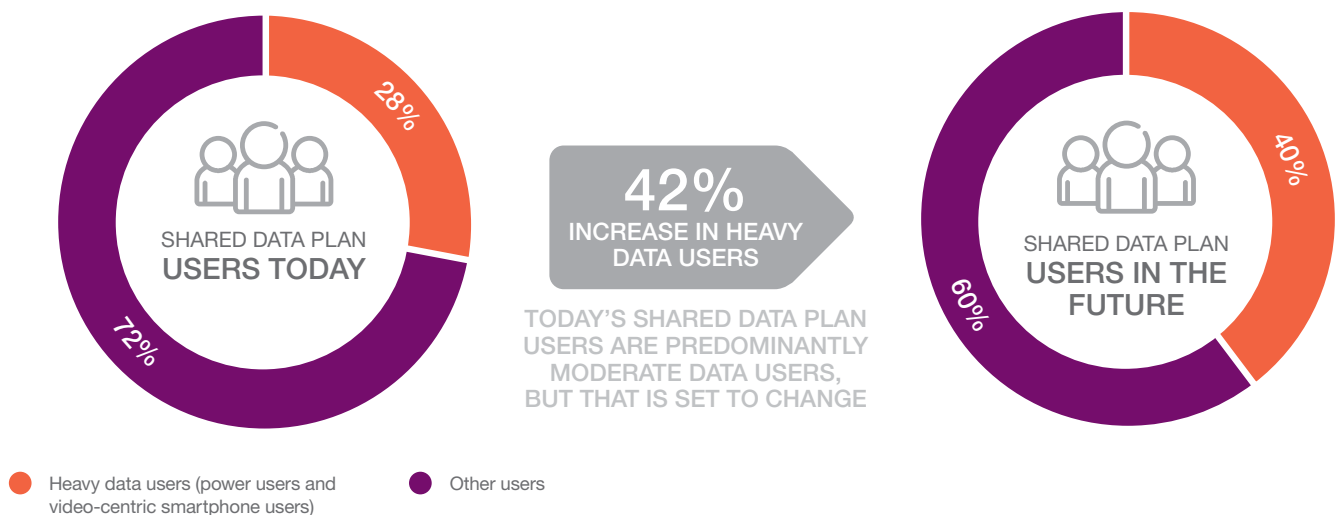
Half of the smartphone users surveyed in this report were aware of shared data plan offerings in their market, with approximately two in every five expressing an interest in acquiring a shared data plan in future.

In Japan and the US, 6 in every 10 shared data plan users today can be categorized as light data users and social media-centric users. The reason for this bias is the existence of family plans in these markets, which largely constitute older adults in the family with moderate data usage. Shared data plans extend this concept and therefore appeal to such users.

In the years to come, based on the type of users who express an intention to acquire shared data plans, this composition will skew towards power and video-centric data-hungry smartphone users, who will comprise half of all future shared data plan users.

The situation in high growth markets such as Brazil and India will be different. The current composition favors young early adopters – power users and video-centric users. Going forward, adoption will spread to light data, browser-centric or social media-centric users, who will constitute 45–60 percent of shared data users.

Figure 3. Shared data plan users today and in the future



Source: Ericsson ConsumerLab, Embracing data sharing, 2015
Base: Shared data plan users in Brazil, India, Japan, South Korea, the UK and the US

Shared data users of the future

One quarter of smartphone users currently on shared data plans are power and video-centric users who consume the bulk of mobile data. In the future, we expect this proportion to increase by 42 percent, with heavy data users making up 40 percent of all shared data plan users across the 6 markets included in the survey – as shown in Figure 3. Looking at the overall picture, this is a rise of 12 percentage points from today. Consequently, shared data plans in future must be designed to cater to heavy data users, since they will have very different expectations from the users of today.

Why not share?

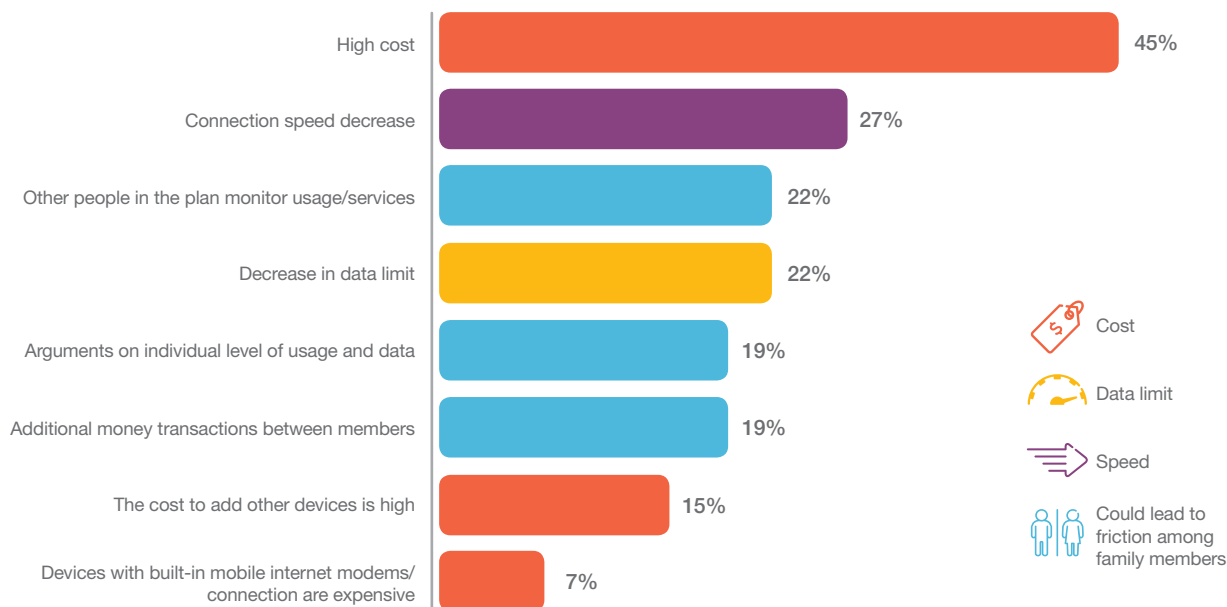
The central barriers preventing some users from taking up shared data plans are the perception of higher costs combined with the belief that sharing

a common data plan within the family will lead to slower speeds when several plan members use it simultaneously – based on their experience with Wi-Fi.

19 percent of smartphone users worry that these plans could cause friction among family members based on arguments over individual usage and costs. This concern appears across all 6 markets. In the US, the cost of adding extra devices to the plan is perceived to be high and is one of the top adoption barriers.

The top barriers preventing power and video-centric smartphone users from taking up shared data plans today, apart from cost, include the discomfort of having others monitor their usage, and reductions in both speed and data limit due to sharing.

Figure 4. Barriers to acquiring a new shared data plan



Source: Ericsson ConsumerLab, Embracing data sharing, 2015
 Base: Smartphone users in Brazil, India, Japan, South Korea, the UK and the US, who are aware of shared data plans but do not have one

WI-FI VS. CELLULAR

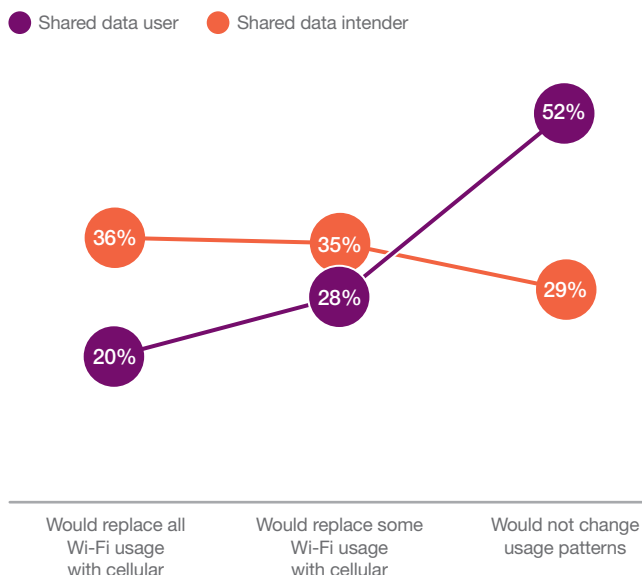
Could shared data replace Wi-Fi?

New cellular networks can provide consumers with speeds comparable to fixed internet. We asked consumers whether they would consider replacing Wi-Fi usage with mobile cellular network usage from a shared data pool. Existing shared data users were less inclined to replace Wi-Fi, however intenders expressed higher interest, as demonstrated in Figure 5.

Half of light mobile data users who intend to take up shared data plans in the future would consider replacing some or all of their existing Wi-Fi usage.

The primary reason cited by intenders which would make them replace some or all of their Wi-Fi usage with cellular usage via a shared data plan was cost. If the cost of individual mobile internet subscriptions in their household and the cost of fixed broadband access was equivalent or higher than a shared data offering, then intenders would consider replacing their Wi-Fi usage.

Figure 5. Replacing Wi-Fi usage with cellular network



Source: Ericsson ConsumerLab, Embracing data sharing, 2015
 Base: Shared data users and intenders in Brazil, India, Japan, South Korea, the UK and the US

SHARED SATISFACTION

Realistic expectations

Figure 6 demonstrates that while high data allowances are the most sought-after element of a shared data plan, unlimited voice and texting are also appealing. Most existing shared data users believe that a future shared data plan with 10 GB of data allowance would be sufficient. Power users' expectations are a little higher at 15 GB – but still not extreme.

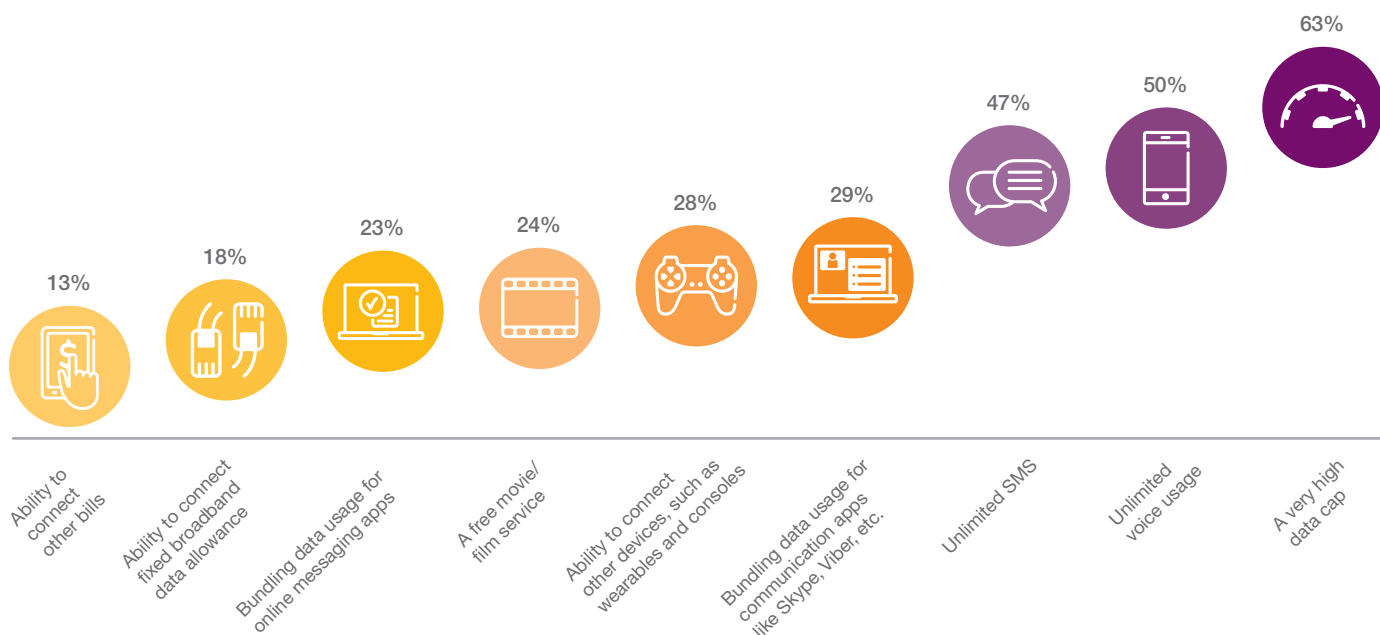
However, consumers are starting to look beyond voice, data and texting to the new services and capabilities included in a shared data plan. 20 percent of existing shared plan users, in addition to intenders, have indicated that free access to movie and TV content,

Shared data plan users are likely to accelerate their usage, and expect **2-3 TIMES HIGHER** data allowances in future



bundling data usage for messaging services, and the ability to connect other types of bills are among their top choices for the most critical elements to be included in a future shared data plan. In India and Brazil, this statistic rose to 25 percent.

Figure 6. Elements that users and intenders consider critical to a shared data plan



Source: Ericsson ConsumerLab, Embracing data sharing, 2015
 Base: Shared data users and intenders in Brazil, India, Japan, South Korea, the UK and the US

Hard to decipher

Consumers are finding it hard to decipher their shared data plans. 46 percent indicated that they are dissatisfied with price plan options and billing because they do not understand how they work. Due to ever-changing promotions, giveaways and handset financing details, these supposedly simple pricing plans become over-complicated.

The always-on nature of mobile data and applications has created different expectations among shared data users around the control and transparency of their mobile data allowances, and how they are utilized in

real time across devices and users. Two in every five users indicate that they are dissatisfied with the ability to track and modify their usage, spending and account balance. With many different people and devices using the same data pool, it is vital that consumers feel fully in control of their usage.



2 IN EVERY 5

shared data users are dissatisfied with the ability to track and modify their usage, spending and account balance

App coverage must improve

From a user perspective, app coverage is the area within a mobile network’s coverage that delivers sufficient performance to run an application at an acceptable level. Of the six different user groups previously outlined – power users, the heaviest users of apps – are the most affected by poor app coverage, based on their app usage behavior. They use more apps and therefore tend to encounter more issues, with 50 percent reporting that they experience problems daily, compared to just 19 percent of light data users. The result is that power users are 2.5 times more likely to stop using their apps.

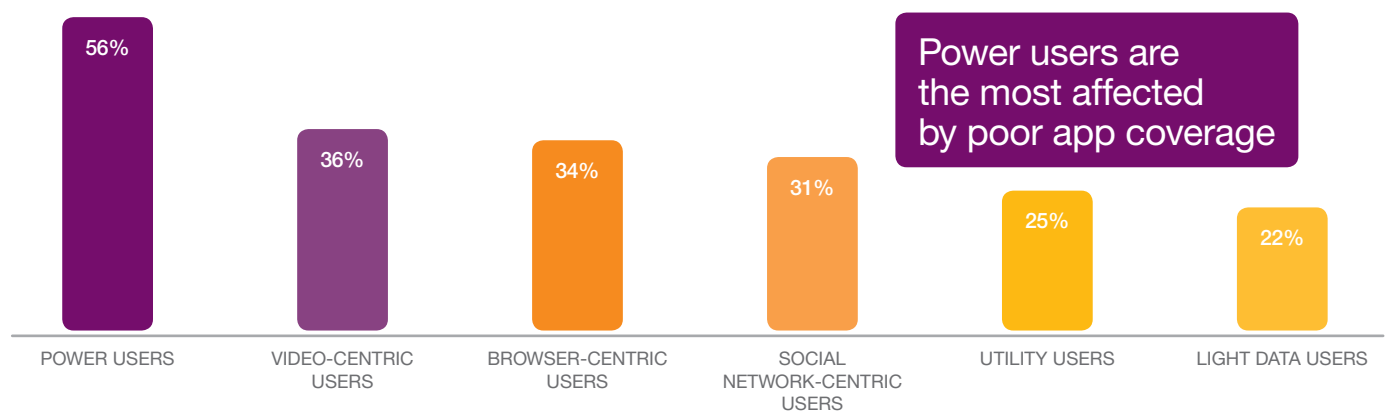
40 percent of future shared data users are likely to be power and video-centric app users. It is therefore critical that app coverage is improved, or these customers will not experience the true benefits and flexibility that shared data plans can offer. While improved app coverage may not impress everyone, it is vitally important to these heavy app users.

Consumers are building a perception of network performance based on how well their video streaming apps perform. This is a particular challenge indoors, when there is no Wi-Fi available. The proportion of smartphone users who are satisfied with using video streaming apps drops by half when moving from outdoor to indoor locations in markets such as Brazil, India, Japan and the UK.

Room for more

According to survey data from the Ericsson ConsumerLab Analytical Platform across the US, the UK, Japan, South Korea, India and Brazil in 2014, smartphone users on shared data plans are interested in connecting more devices. Future shared data plans will need to accommodate an increasing range of new devices as wearable technology, connected cars and connected homes become reality.

Figure 7. Percentage of smartphone users who have stopped using apps due to bad coverage



Source: Ericsson ConsumerLab, Embracing data sharing, 2015
 Base: Smartphone users in Brazil, India, Japan, South Korea, the UK and the US

WHAT DO CONSUMERS EXPECT?

-  CLEAR UNDERSTANDING OF COST
-  SIMPLE AND STREAMLINED OFFERING
-  REAL-TIME VISIBILITY AND MANAGEMENT
-  ENHANCED VALUE THAT EXTENDS TO OTHER DEVICES AND CONCEPTS
-  SUPERIOR APP COVERAGE FOR HEAVY USERS

Ultimately, the future of shared data plans will depend on key expectations being met for both existing and emerging users. As consumer needs continue to rapidly shift, so the need for innovation increases

when it comes to mobile data plans, promoting continuous evolution to meet the requirements of tomorrow’s consumer.

Ericsson is the driving force behind the Networked Society – a world leader in communications technology and services. Our long-term relationships with every major telecom operator in the world allow people, businesses and societies to fulfill their potential and create a more sustainable future.

Our services, software and infrastructure – especially in mobility, broadband and the cloud – are enabling the telecom industry and other sectors to do better business, increase efficiency, improve the user experience and capture new opportunities.

With more than 110,000 professionals and customers in 180 countries, we combine global scale with technology and services leadership. We support networks that connect more than 2.5 billion subscribers. Forty percent of the world's mobile traffic is carried over Ericsson networks. And our investments in research and development ensure that our solutions – and our customers – stay in front.

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