

CONSUMERLAB



# WI-FI CALLING FINDS ITS VOICE

Assessing its impact on communication behavior

An Ericsson Consumer Insight Summary Report  
July 2015

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## METHODOLOGY

Qualitative and quantitative insights were gathered from an Ericsson ConsumerLab international smartphone traveler survey.

### Qualitative

Research was conducted with consumers who own smartphones and have traveled internationally at least once in the past 12 months. Two international traveler focus groups were conducted in London alongside in-depth interviews with existing Wi-Fi calling users in Chicago.

### Quantitative

An online survey was conducted among 5,000 smartphone users in Brazil, Egypt, Spain, the UK and the US who have traveled internationally in the past 12 months. A mix of both business and leisure travelers were included, as were 200 existing Wi-Fi calling users from the US. The quantitative survey is representative of the voice of 50 million international travelers.

Our sample of Wi-Fi calling users from the US included a high number of single adults, aged 25-34 years old, living in urban city centers. They are more likely to own an Android smartphone, but also own multiple devices. 70 percent of our survey sample of Wi-Fi callers traveled internationally very frequently, while the rest did not. Given that Wi-Fi calling is new to the market, it has been hard to assess the representativity of the survey among Wi-Fi callers.

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## THE VOICE OF THE CONSUMER

Ericsson ConsumerLab has 20 years' experience of studying people's behaviors and values, including the way they act and think about ICT products and services. Ericsson ConsumerLab provides unique insights on market and consumer trends.

Ericsson ConsumerLab gains its knowledge through a global consumer research program based on interviews with 100,000 individuals each year, in more than 40 countries and 15 megacities – statistically representing the views of 1.1 billion people.

Both quantitative and qualitative methods are used, and hundreds of hours are spent with consumers from different cultures. To be close to the market and consumers, Ericsson ConsumerLab has analysts in all regions where Ericsson is present, developing a thorough global understanding of the ICT market and business models.

All reports can be found at: [www.ericsson.com/consumerlab](http://www.ericsson.com/consumerlab)



# WI-FI CALLING ARRIVES

Wi-Fi calling is an operator-provided service that makes it possible for consumers to make regular phone calls and text messages from their SIM-based mobile phone number, even if they have poor cellular coverage, by utilizing a Wi-Fi network.

Wi-Fi calling does not require a separate app to be installed on the smartphone. Consumers are reachable on their normal phone number and can place a call or text from the native dialer on the phone itself.

This report explores how the introduction of Wi-Fi calling is affecting communication behavior among those already using it in the US. It also investigates the consumer-perceived benefits. This report additionally examines how Wi-Fi calling is viewed by frequent international travelers, and the potential communication behavior changes if they were to adopt the service.



## KEY FINDINGS

### Lack of indoor cellular coverage

- > Twice as many smartphone users make voice calls and send texts indoors than outdoors. However, globally, just 4 in 10 are satisfied with their indoor connectivity experience, and only 3 in 10 with voice call quality, coverage and reliability

### Driving loyalty and behavior

- > The experience of uninterrupted service drives satisfaction among 4 out of 5 existing Wi-Fi calling users who are frequent international travelers from the US. This leads to better consumer loyalty and advocacy (Net Promoter Score). 61 percent claim they now make longer and more frequent voice calls

### Travelers adapt communication behavior

- > In order to keep roaming costs down, international smartphone travelers adapt their behavior whilst abroad. Fewer voice calls are made, 88 percent seek Wi-Fi whenever possible and 23 percent switch off their phones. Two out of three pre-plan communication and half rely on communication apps

### Take a trip with Wi-Fi calling

- > A third of international smartphone travelers are aware of Wi-Fi calling, with 7 out of 10 finding it appealing. 77 percent will increase communication using Wi-Fi calling. The ability to call from the smartphone dialer itself without the help of apps is valued most by consumers

### Expectations on Wi-Fi calling

- > Wi-Fi callers demand a seamless experience with 53 percent claiming they experience inconsistent call quality at times. While 35 percent of international travelers with smartphones claim they will give up using communication apps in favor of Wi-Fi calling, an equal proportion of users value the enriched communication experience offered by communication apps and will continue to use them

# LIVING WITH NO SIGNAL

Amanda, a 40 year old high school substitute teacher, lives in a prime Chicago suburb with her husband and teenage children.

Her house has extremely poor network coverage, especially in remote corners such as her bedroom and basement. This resulted in dropped calls and missed text messages, and thus reduced communication, particularly voice calling. She felt frustrated and worried about being disconnected from her family when they were out and trying to reach her.



Globally, only 3 in 10 smartphone users find voice quality, coverage and reliability indoors to be good

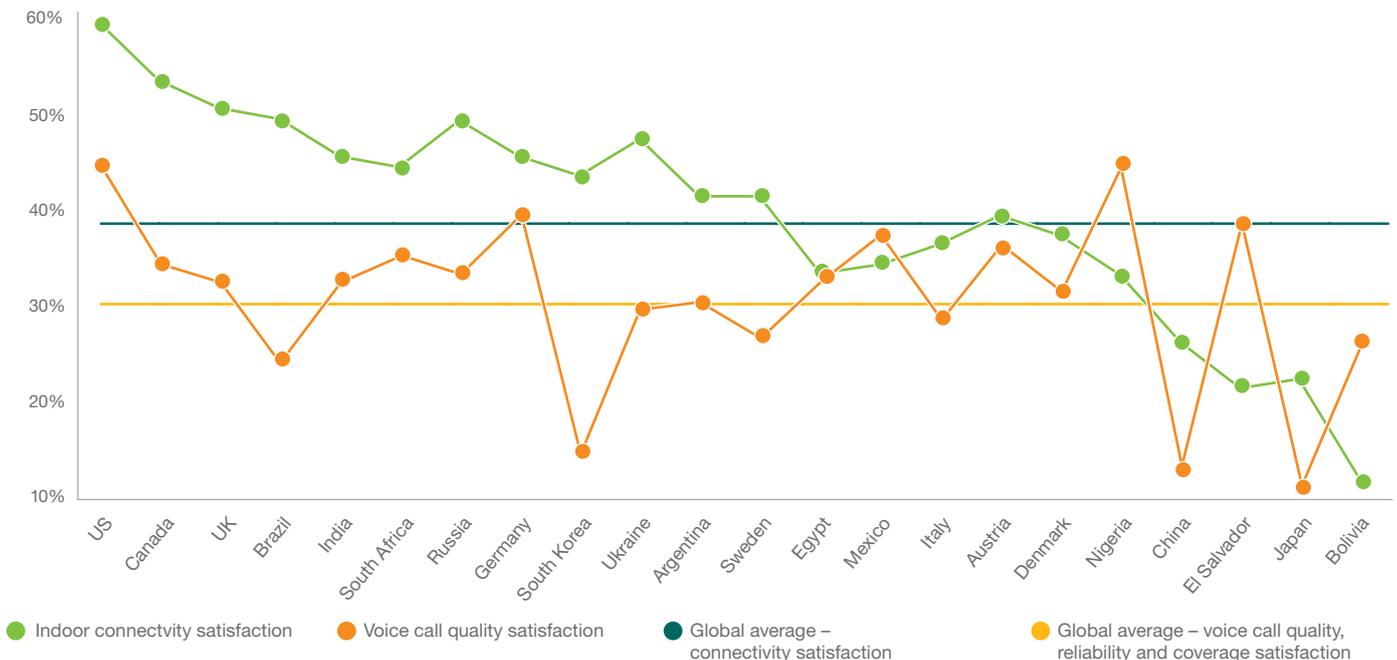
Amanda upgraded to a smartphone with Wi-Fi calling capability and now no longer has to worry about missing calls from her family. The service has increased her use of voice calling while giving her the reassurance of being reachable by anyone, at any time and from anywhere.

## The indoor cellular experience

While twice as many smartphone users send texts or make voice calls indoors than outdoors, just 4 in 10 find the indoor connectivity experience to be good or excellent and around only 3 in 10 find voice quality, coverage and reliability to be good.

The indoor voice calling experience issue is more prominent in the dense urban cities within China, Brazil, Japan and South Korea, where only 1–2 in every 10 smartphone users claim that the experience is good.

Figure 1: Satisfaction with the indoor experience



Source: Ericsson ConsumerLab, Analytical Platform, 2014

Base: Users aged 15-69 of respective services on smartphone, tablet or PC, 22 countries: Argentina, Austria, Bolivia, Brazil, Canada, China, Denmark, Egypt, El Salvador, Germany, India, Italy, Japan, Mexico, Nigeria, Russia, South Africa, South Korea, Sweden, UK, Ukraine and US

# FILLING COVERAGE GAPS



“My phone had become a brick. But now it is a completely different way of communicating. Wi-Fi calling has changed everything.”

Julia, 29 years old,  
Chicago, US

Julia, a 29 year old from New York, moved to Chicago and lives in a shared apartment with a friend. With poor cellular coverage in her apartment, she would often resort to using communication apps over Wi-Fi as a replacement for voice calls, or using email and chat apps. Since signing up to Wi-Fi calling, she finds herself calling more frequently and staying on the phone for longer durations.

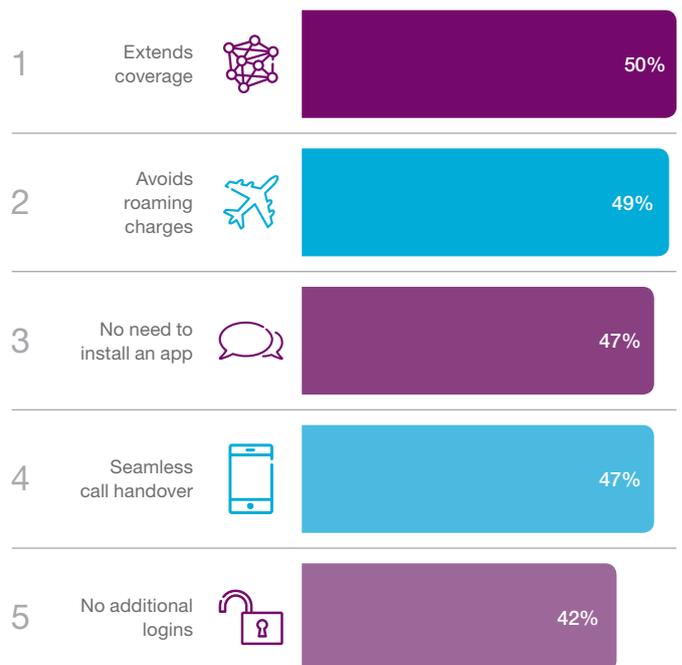
According to ConsumerLab research in 11 markets (Brazil, China, Germany, Italy, India, Japan, Russia, South Korea, Sweden, the UK and the US) the availability of Wi-Fi continues to grow in urban smartphone users' households, from 30 percent in 2011 to 61 percent in 2014.

However, when using core communication services like voice and texting, users still rely on cellular networks for service. Consumers would prefer that operators fix the coverage issues they face, rather than having to fix issues themselves by using a new service or extending their own Wi-Fi coverage. When indoor coverage issues arise, consumers explore alternatives like Wi-Fi calling to deal with 'not-spots' within the household.

 4 out of 5 Wi-Fi calling users interviewed in the US are very satisfied with the service

For existing Wi-Fi callers from the US who are also frequent international travelers, one of the most attractive aspects of Wi-Fi calling is the extended coverage it offers in areas where communication was originally not possible. Another factor ranked as appealing was the ability to save on roaming charges when traveling and no longer needing third party communication apps to be installed on the phone (Figure 2).

Figure 2: Why users find Wi-Fi calling appealing



Source: Ericsson ConsumerLab, Wi-Fi calling finds its voice, 2015  
Base: Existing, satisfied Wi-Fi callers, US smartphone users

# ACCESSIBLE AND UNINTERRUPTED

70 percent of Wi-Fi calling users in the US, who also happen to be international travelers, report that they are now able to make calls from every corner of their house. Users also perceive a change in the quality of voice calls being made over Wi-Fi. The feeling of being always reachable has resulted in a change in communication behavior, with consumers making more frequent and longer voice calls.

53 percent of users surveyed even claim that they have substituted use of communication apps for voice calls.



61% of Wi-Fi calling users in the US have increased their voice usage with Wi-Fi calling

Figure 3: Changes in communication behavior and perception of quality (% of Wi-Fi calling users who agree)



Source: Ericsson ConsumerLab, Wi-Fi calling finds its voice, 2015  
Base: Existing smartphone Wi-Fi callers, US

## Moving the needle on consumer advocacy

Network performance, especially extended coverage, is the principle driver behind subscribers' loyalty towards mobile operators.\* In the US, smartphone users currently using Wi-Fi calling are generally 1.5 times more likely to be loyal advocates of the providers offering the service.

They are more inclined to award a higher Net Promoter Score (NPS)\*\* than non-users.

Figure 4: Net Promoter Score for those with and without Wi-Fi calling in the US



\* According to Ericsson ConsumerLab, Keeping smartphone users loyal, 2013

\*\* NPS is a metric used to measure how likely consumers are to recommend a brand to friends and family

Source: Ericsson ConsumerLab, Wi-Fi calling finds its voice, 2015  
Base: Smartphone users of US operators offering Wi-Fi calling

# TRAVELERS' DILEMMA



Worried that a high bill will be waiting at home, the international smartphone travelers surveyed often adapt their communication behavior when abroad, as seen in Figure 5.

When abroad, around half cut down on call usage, 43 percent send fewer texts and an equal number use mobile data sparingly, compared to when at home. Some resort to using communication applications rather than voice calls and texts, while others switch off their phones. Around half of travelers surveyed said they make over 6 voice calls out of every 10 using such communication apps when traveling.

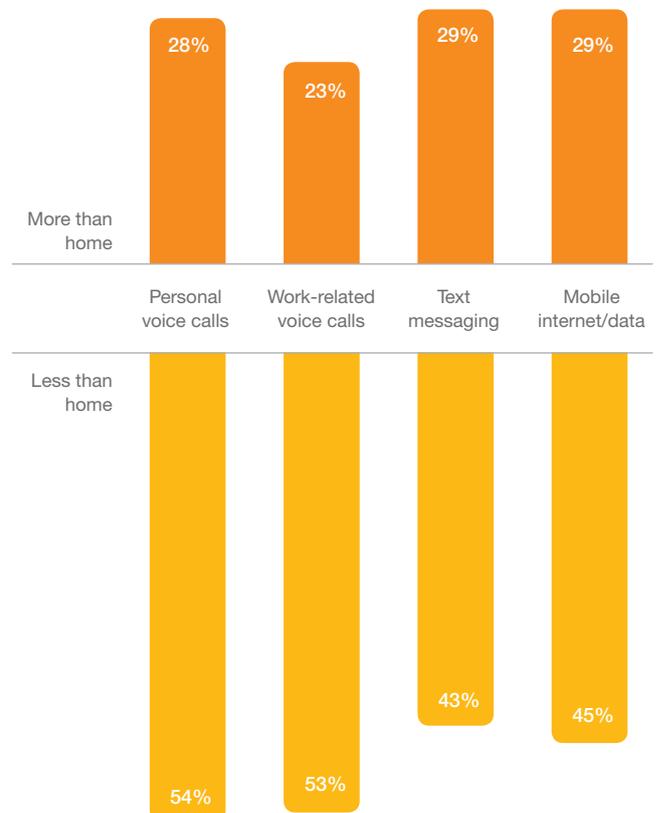


23 percent of travelers either keep smartphones in airplane mode or simply switch them off for the entire trip

Despite often being signed up to corporate mobile plans, half of all business travelers indicate that they have to monitor costs and cut down on personal calls while abroad. 30 percent claim that their employer sets a maximum limit on usage or roaming expenses.

While international smartphone travelers have become savvy in strategies to avoid high roaming charges, 30 percent still face higher bills than expected once home, and as a result, a quarter look to switch operators.

Figure 5: Communication while abroad compared to when at home



Source: Ericsson ConsumerLab, Wi-Fi calling finds its voice, 2015  
Base: All smartphone travelers across Brazil, Egypt, Spain, the UK and the US

# AWARENESS AND APPEAL

A third of international smartphone travelers in our survey were aware of Wi-Fi calling; 20 percent had heard of the service but were not sure how it works or what the benefits are, and over half had not yet heard of it.

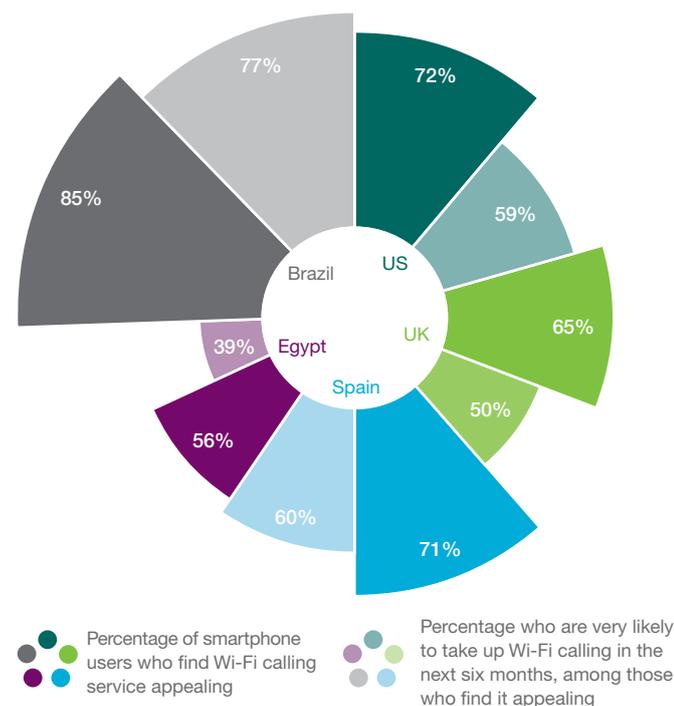
Once the possible benefits of Wi-Fi calling were explained, 7 out of 10 found the concept appealing. The ability to call using the smartphone dialer itself without the need for any apps was considered the most attractive by half of all smartphone travelers, particularly for the added convenience. Of those smartphone travelers who find Wi-Fi calling appealing, 5 out of 10 intend to use the service if made available in the next 6 months.

Figure 6: Average appeal and intention to use Wi-Fi calling across 5 markets



Source: Ericsson ConsumerLab Wi-Fi Calling Finds its Voice, 2015  
Base: All smartphone travelers across Brazil, Egypt, Spain, the UK and the US

Figure 7: Wi-Fi calling appeal and likelihood of adoption



Source: Ericsson ConsumerLab, Wi-Fi calling finds its voice, 2015  
Base: All smartphone travelers, non-users of Wi-Fi calling



Apart from lack of spontaneity in communication while traveling, issues faced while using communication services indoors and the availability of Wi-Fi are likely drivers for adoption, although these factors vary across countries and will have an impact on the appeal and adoption, as seen in Figure 7.

In contrast, the need to upgrade to compatible smartphones that support Wi-Fi calling is a barrier that may affect how the service is adopted, since the feature has only recently been launched to market and is therefore currently only available on some Apple and Android devices.

Among the 3 in 10 who find it unappealing, 60 percent doubted that call quality would be any different to the communication apps and services they already use. They were also unsure as to how much they are likely to be charged by the operator for such a service.

## Reducing pre-planning

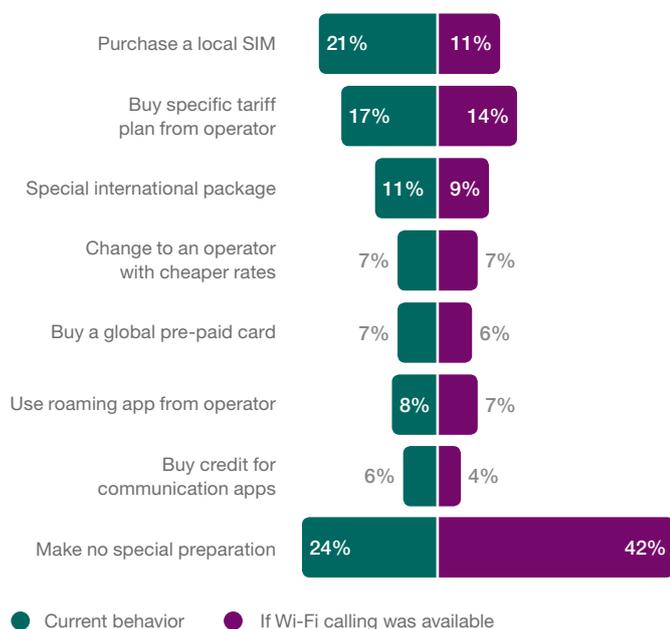
Two out of every three international smartphone travelers pre-plan communication needs, from purchasing a local SIM at their destination to buying credits for communication calling apps. If Wi-Fi calling is adopted, 42 percent of travelers claim they will no longer need to plan for communication before trips (Figure 8).

The remaining 58 percent however, will continue to plan for voice and texting communication when they are outside the reach of Wi-Fi, since Wi-Fi calling is unlikely to solve roaming bill shocks due to mobile data usage.

# ANTICIPATING TRAVEL BEHAVIORS

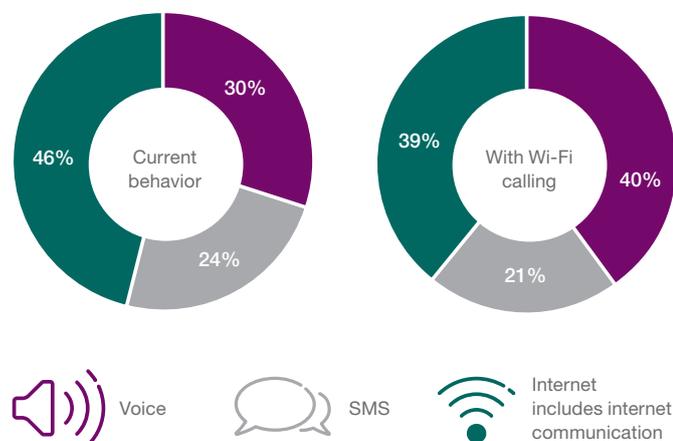
International smartphone travelers were asked about their daily usage of voice, texting and internet communication while traveling. 30 percent of the total share of daily communication usage is voice, while 46 percent is internet usage, primarily over Wi-Fi. Once Wi-Fi calling is made available, travelers anticipate that the share of voice communication will increase from 30 percent to 40 percent (Figure 9).

Figure 8: Change in pre-planning of communication needs



Source: Ericsson ConsumerLab, Wi-Fi calling finds its voice, 2015  
Base: All smartphone international travelers, intenders of Wi-Fi calling

Figure 9: Change in daily communication usage



Source: Ericsson ConsumerLab, Wi-Fi calling finds its voice, 2015  
Base: All smartphone international travelers, intenders of Wi-Fi calling

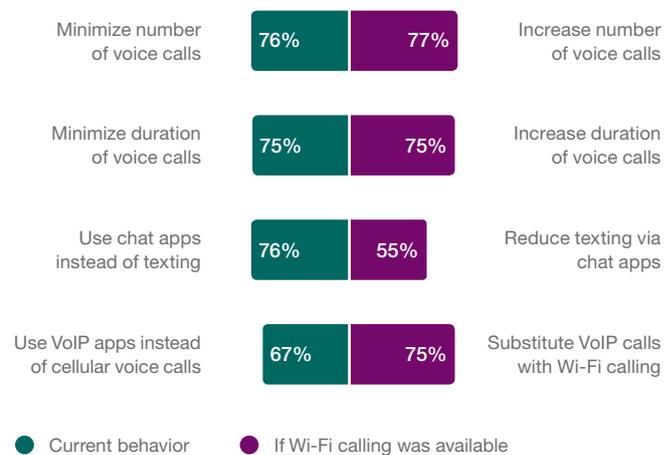


Today, on average, 75 percent of smartphone users minimize the number or duration of voice calls while traveling internationally. However, if Wi-Fi calling was available, an equal proportion say that they would increase both the frequency and length of voice calls.

The reliance on communication apps is likely to decrease, with 75 percent of travelers predicting they will substitute some of their over-the-top communication usage with Wi-Fi calls, as shown in Figure 10.

Wi-Fi calling is unlikely to have a drastic impact on the communication behavior of business travelers, particularly as around half are concerned that call quality would be compromised due to Wi-Fi bandwidth and that they would actively have to look for Wi-Fi zones to place calls which would restrict their mobility.

Figure 10: Behavior changes if Wi-Fi calling was made available



Source: Ericsson ConsumerLab, Wi-Fi calling finds its voice, 2015  
Base: All smartphone international travelers, intenders of Wi-Fi calling

# EXPECTATION ON WI-FI CALLING

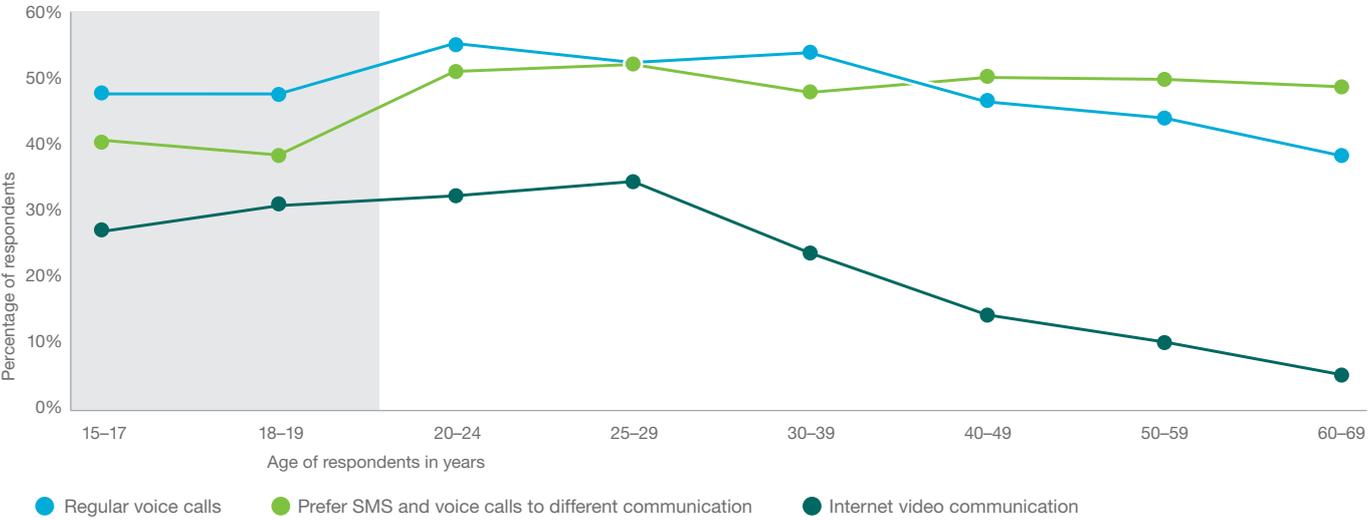


### Communication beyond voice

Figure 11 compares how communication modes like voice and texting are utilized across age groups. The young show a relatively lower preference for voice calls and texting, with 47 percent making voice calls on a daily basis compared to 53 percent of 25+ year olds. While voice has not completely lost its significance for the

younger generation, new communication modes such as video communication are emerging. Across Brazil, India, Japan, South Korea, the UK and the US, 30 percent of teenagers are now using online video calls daily. With video likely to emerge as the new voice, Wi-Fi calling will have to evolve in order to remain relevant to this market.

Figure 11: Preferences of smartphone users who use services at least daily



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

### A seamless experience

Wi-Fi calling is emerging as an alternative for dealing with indoor signal issues and as such, consumers expect the service to work seamlessly and solve the communication problems they face today. Existing Wi-Fi callers from the US understand that call quality will be dependent on Wi-Fi bandwidth, and so they continue to take steps to improve and extend Wi-Fi coverage, with 3 in 5 saying that they are investing in repeaters and routers.

However, as Figure 12 shows, existing Wi-Fi calling users claim they face issues such as battery drain and inconsistent call quality, which could limit future adoption.

Fixing these issues early will help to meet consumer expectations and ensure that Wi-Fi calling finds its voice in the future communication era.

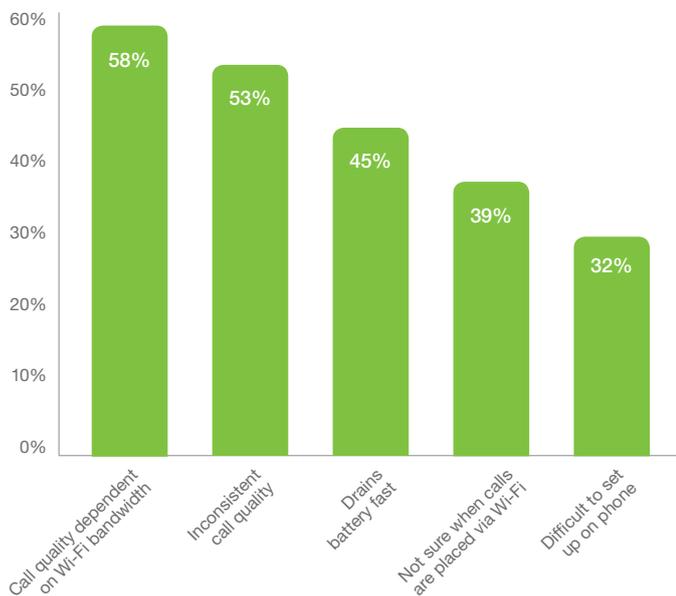
### Using an app vs. Wi-Fi calling

While 35 percent of international smartphone travelers claim they will stop using communication apps as a result of Wi-Fi calling, 29 percent expect to retain their usage of communication apps and use Wi-Fi calling when needed. Among the 3 in 10 international travelers who found Wi-Fi calling unappealing, one of the reasons given was its lack of differentiation and ability to match the rich features offered by communication apps. 36 percent of this group found using communication apps to be trendier and saw no current pressing need for alternative mediums.



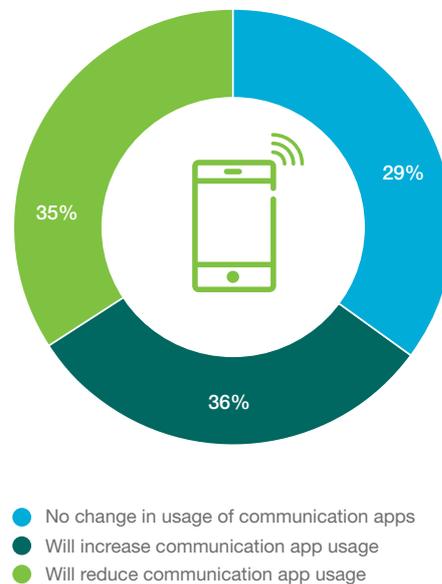
35 percent of international smartphone travelers claim they will stop using communication apps as a result of Wi-Fi calling

Figure 12: Percentage of existing Wi-Fi calling users facing issues



Source: Ericsson ConsumerLab, Wi-Fi calling finds its voice, 2015  
Base: Existing Wi-Fi calling users – US

Figure 13: Will consumers give up on communication apps when Wi-Fi calling is introduced?



Source: Ericsson ConsumerLab, Wi-Fi calling finds its voice, 2015  
Base: All smartphone international travelers, intenders of Wi-Fi calling

## CONCLUSIONS

Wi-Fi calling is emerging as an alternative for smartphone users, providing an uninterrupted voice and texting service. This is leading to better satisfaction and loyalty, and a change in communication behavior.

International travelers value the spontaneity Wi-Fi calling brings to their communication needs, providing them with an alternative to using OTT communication apps.

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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.

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