

**Deloitte.**



**2016 Global Mobile Consumer Survey:  
US Edition**

The market-creating power of mobile

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Mobile devices are by now firmly entrenched in our lives. The rise of mobile has paved the way, not just for more robust forms of communications but for whole new markets, such as mobile payments (mPayments), the Internet of Things (IoT), location-based advertising, and an entire ecosystem of apps including social media. In fact, mobile devices have become so ubiquitous that anyone without access to one is unable to participate in the full spectrum of activities that comprise our global economy.

For the past six years, Deloitte's global Telecom sector practice has been taking the pulse of consumer attitudes towards mobile technology. Our 2016 US survey confirms that mobile has become increasingly pervasive and indispensable across all demographics and geographies, with consumers enthusiastically embracing its future potential.

# Life's essentials: Air, water, food, and smartphones

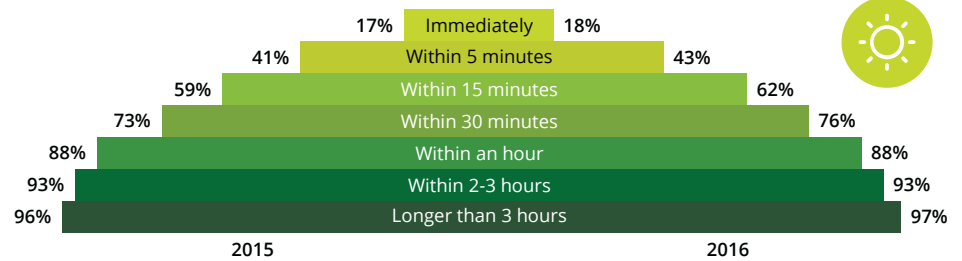
Ask someone what they would miss the most if they were confined to a desert island, behind food and water, chances are they'd say their phones. As functionality increases, mobile phones have become an essential part of our lives, shaping how we communicate with everyone from friends and family to colleagues and customers.

Mobile phone usage is up across the board. The time it takes for us to pick up our phones in the morning continues to shrink: more than 40% of consumers check their phones within five minutes of waking up. Likewise we have trouble putting them down, with over 30% of consumers checking their devices five minutes before going to sleep, and half doing so in the middle of the night. All told, we look at our phones approximately 47 times a day, and that number rises to 82 for 18-24 year-olds. Collectively US smartphone users check their phones in the aggregate more than 9 billion times per day.

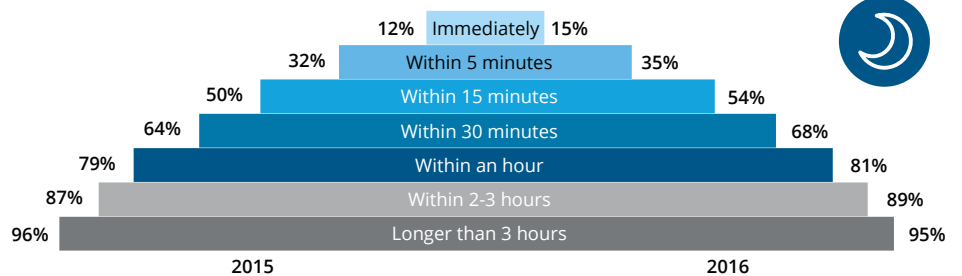
The growing extent to which we turn to our phones is driven in part by their expanding functionality. Usage frequency has increased for most data communication services: 45% of consumers report using more video calls compared with last year, 44% say they are doing more instant messaging, and 39% reporting increased use of VoIP calls.

Perhaps most interesting is how our reliance on mobile devices has changed the very nature of communications. Text and other short forms of communication have begun to dominate. For the first time across all age groups, the largest percentage of consumers (35%) say the first thing they access on their phones each day is texts or instant messages (IMs), with email coming in second (22%).

## Typically how long is the interval between waking up and looking at your phone for the first time?

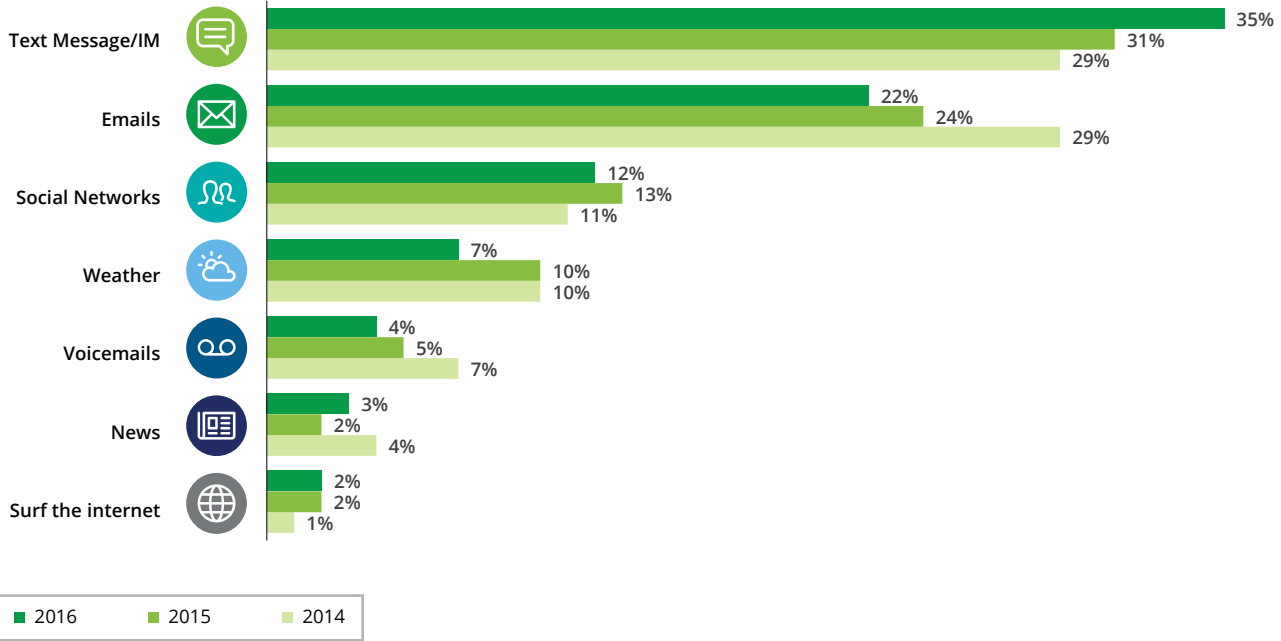


## At the end of the day, typically how long is the interval between looking at your phone for the last time and preparing to sleep?



Source: USA edition, Deloitte Global Mobile Consumer Survey  
 Base: Smartphone owners 2014: 2015: 1,458, 2016: 1,530

Typically, what is the first thing you access on your phone every day?



Source: USA edition, Deloitte Global Mobile Consumer Survey, June 2016  
 Base: Smartphone owners 2014: 2015: 1,458, 2016: 1,530

As the central communications hub for people’s lives, mobile devices have become an extension of our personal identities. They allow us to connect to multiple sources 24 hours a day and maintain far more touchpoints than was ever before possible. But in order to stay in contact with this expanded network, many people have had to resort to shorter forms of communication. Email is beginning to fall by the wayside, replaced by texting—sometimes even in the work setting. While texting may have its downsides, the ability to communicate rapidly with so many people has helped fulfill a fundamental human need—to connect.

# The mobile device landscape: Where to from here?

Mobile devices are at an important crossroads with penetration reaching saturation levels in the United States. What emerges this year is growth in less saturated markets – such as among 55+ year olds, as well as in new product lines, including wearables and virtual reality (VR) headsets.

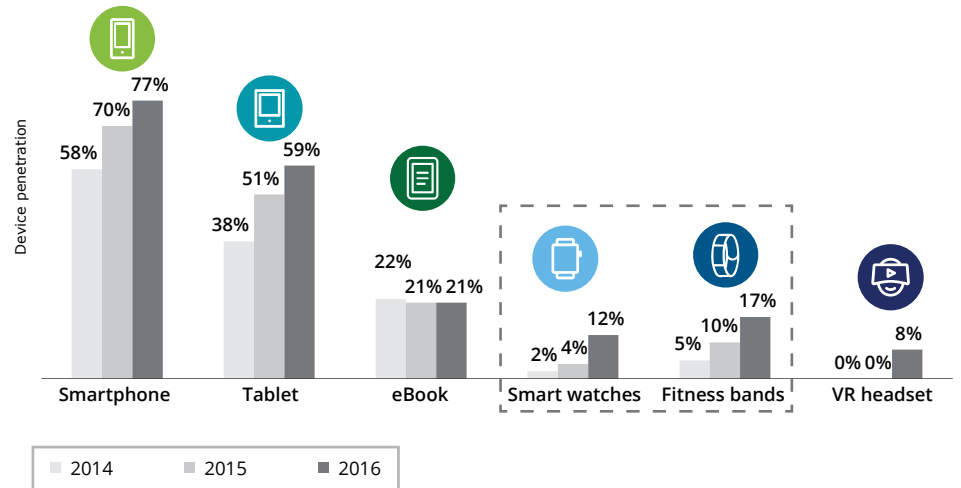
After a period of explosive growth, smartphone penetration has begun to plateau, with only a 7% increase. This is hardly surprising. Most people in the United States today already own a smartphone, and for demographics with lower saturation levels, such as people over age 45, growth has much been stronger. Soon even your grandmother will own a smartphone, if she doesn't already.

In the future we may see more second hand phones coming into the market, strengthening the trends of slower new smartphone sales. Currently only 25% of smartphones are sold or traded in, and 34% of them are kept as spares. This represents a huge potential for secondhand phones, which offer most of the capabilities of the previous generation. So where do companies looking for growth move to next? The answer appears to be wearables.

Smart watches tripled their market penetration in 2016, moving from a paltry 4% to 12% today, while fitness bands reached 17% from last year's 10%. The growth in wearables is good news for smartphones because it cements their role as an information hub. We are seeing smartphones emerge as command central

for a host of services and devices that will become increasingly important in our lives. Already we can use them to summon rides, order food, turn off the heat at home from our offices, as well as switch on the burglar alarm, or check the nanny cam.

Which, if any, of the following devices do you own or have ready access to?



Source: USA edition, Deloitte Global Mobile Consumer Survey, July 2014, July 2015, Aug 2016  
 Base: All respondents, USA, 2014: 2001, 2015: 2069, 2016: 2000

# Mobile devices: They are in on the action

Smartphones have become integral to virtually every aspect of our lives, from shopping to working. The vast majority (93%) of consumers report using their mobile phones at work—hardly surprising since many of us have replaced office phones with our mobiles.

Outside of work, shopping still ranks as the number-one activity during which consumers use their phones, with 93% reported usage. Spending leisurely time and watching TV follow closely at 90% and 89% respectively. While the youngest

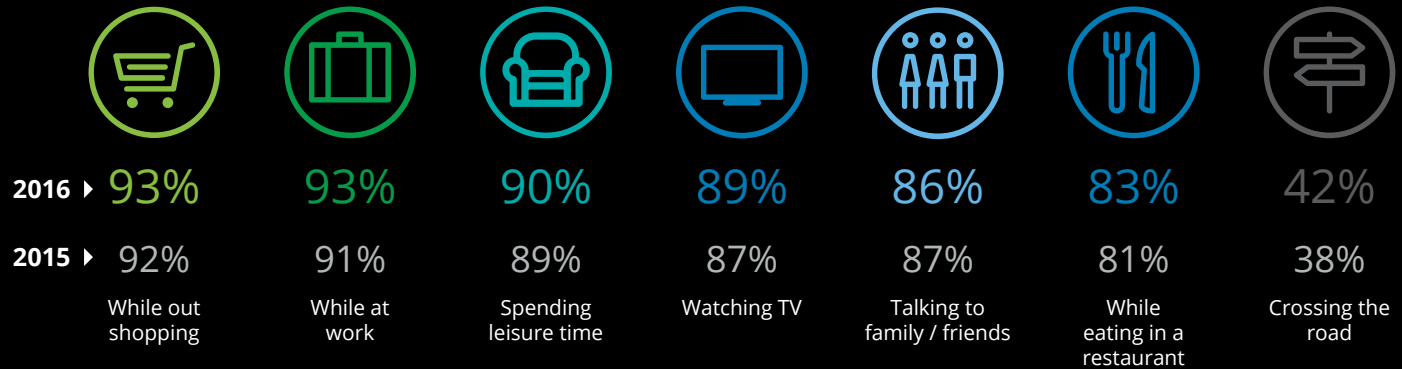
demographic is usually the most likely to report using their phones during various activities, the highest users while watching TV are those in the 25-34 category, with a 98% reported simultaneous usage.

Phones are becoming important tools for shopping. More than half of consumers (58%) report they have used their phones to browse a shopping website or app, and more than a third (38%) say they do so at least once a week. Nearly 40% say they have used their phones to pay for products.

Younger generations, especially 25-34 year-olds show much higher rates of phone engagement while shopping, with 85% using their phones for website browsing and 76% paying for a product with their phones.

Mobile devices have become the essential point of connection between consumers and whatever they are doing beginning at home, and extending out to all of their daily activities. This presents multiple opportunities for businesses to monetize this web of connectivity, from social networking to the IoT.

## How often, if at all, do you use your mobile phone while doing the following activities?



Source: USA edition, Deloitte Global Mobile Consumer Survey, June 2016

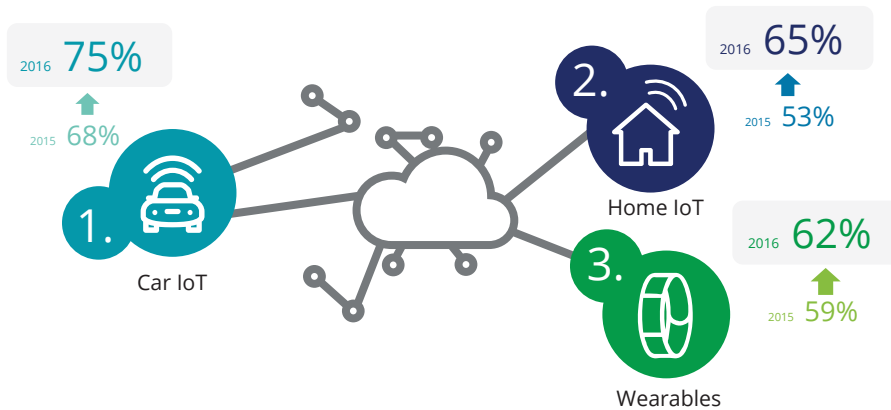
Base: Smartphone owners: 1,530

Note: Respondents for which a particular activity does not apply have been excluded from this analysis (i.e. respondents who do not work have not been asked if they use their phone in a business meeting), and excludes 'work' based responses of "while working" and "while in a business meeting." Collective responses are "hardly ever" and above.

# IoT: It's connecting with consumers

The IoT market is taking shape as consumers become more open to the promise of a host of interconnected devices. In last year's survey, we saw markedly less interest in home-based IoT solutions, in favor of car-based IoT and even wearables (connected self). This year we are seeing some dramatic shifts. Interest in home-based IoT showed the largest year-over-year increase, jumping 12 percentage points from 53% to 65% and surpassing interest in wearables.

## Consumer-stated interest in each of the following IoT Categories:



Source: USA edition, Deloitte Global Mobile Consumer Survey, July 2015  
Base: All adults: 2,069; All Smartphone owners: 1,458; All tablet owners: 1,059

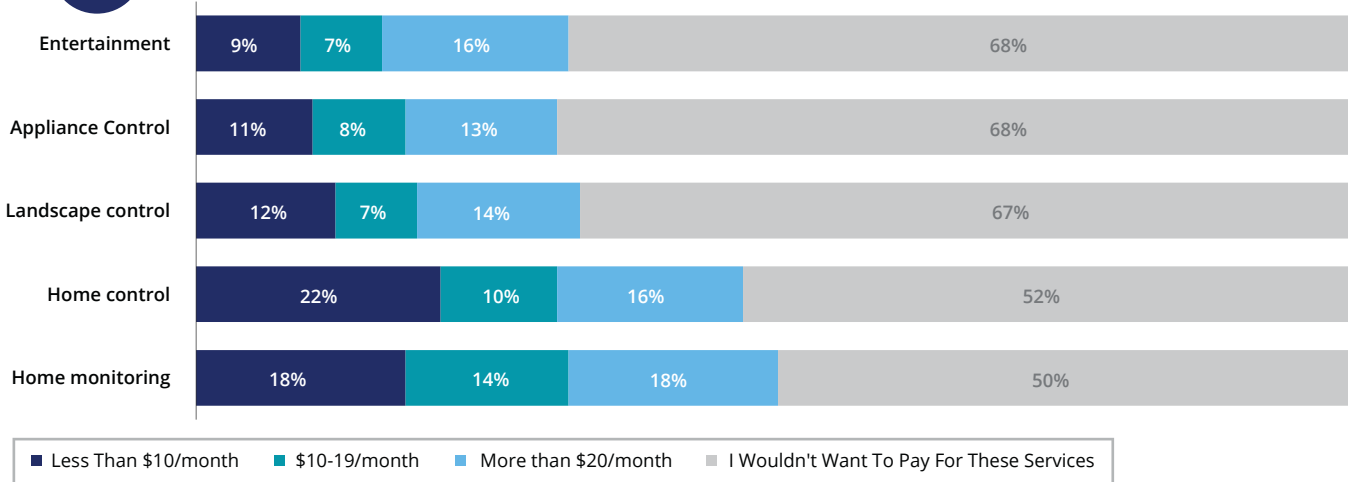


Interest in IoT categories is up across the board, but more important for players in this ecosystem, willingness to pay for IoT services has risen considerably. Half (50%) of consumers say they are willing to pay extra for home monitoring services, and 48% would pay more for home control.

**How much would you be willing to pay for each way of connecting your home and/or car(s) to the internet?**



**Connected home**



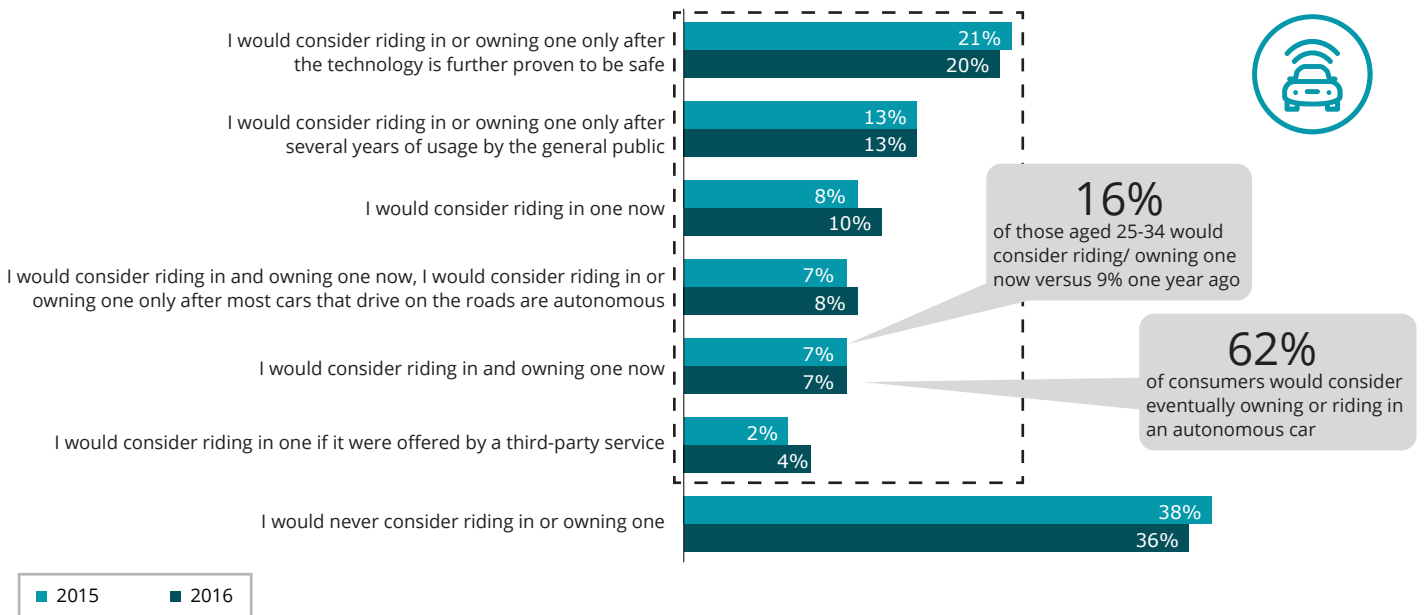
Source: USA edition, Deloitte Global Mobile Consumer Survey, Aug 2016

Chart 1 - Base: All adults, 18-75, 2000

Chart 2 - Base: All adults, 18-75, 2000

The big news in this year's survey concerns autonomous vehicles. Nearly two-thirds (62%) say they would consider eventually owning or riding in an autonomous car, and 16% of those aged 25-34 are ready to take the plunge now. Interest in purchasing an autonomous vehicle has shot up from 18% in 2015 to 27% in this year, a relative increase of 50%.

**Under what circumstances would you consider riding in or owning a self-driving (autonomous) car?**

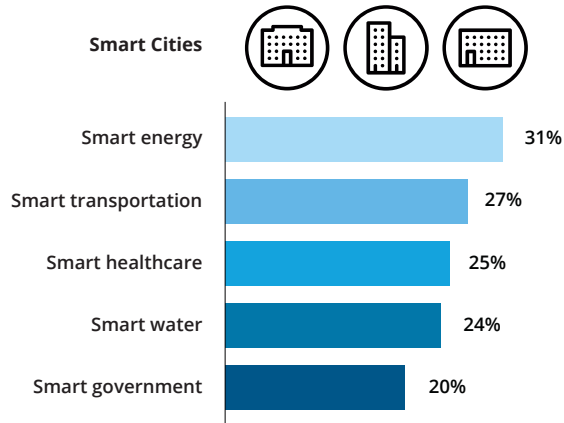


Source: USA edition, Deloitte Global Mobile Consumer Survey, Aug 2016

Base: All respondents: 2000; Excludes 'Other' of 2%

Enthusiasm for IoT extends to smart cities and services. Nearly a third of consumers think smart energy, smart transportation, and smart healthcare would make their communities more livable, with 25-34 year-olds demonstrating the most positive responses.

**Which, if any, of these services do you think would make your community more livable?**

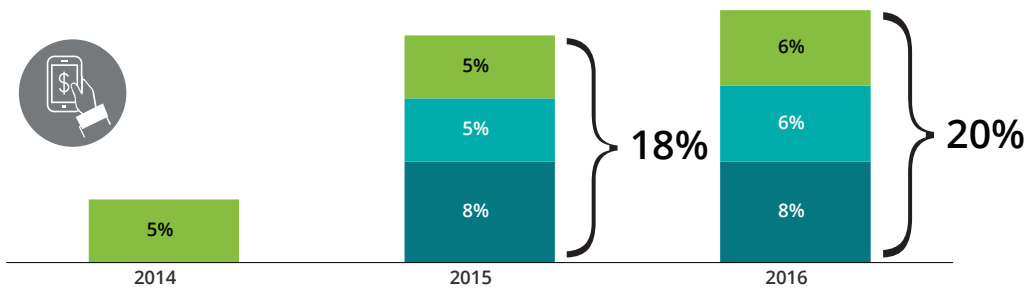


Source: USA edition, Deloitte Global Mobile Consumer Survey, Aug 2016  
Base Graph 1: All respondents: 2000

# mPayments: Staying on course

In 2015, mPayments—the use of mobile phones to make in-store payments—nearly quadrupled to 18%, causing a great deal of excitement about the future of the relatively new technology. This year, the story is more muted, with only a slight uptick to 20%. Nevertheless, there is still considerable interest in mPayments, especially online mobile payments suggesting the potential remains for the technology to become commonplace.

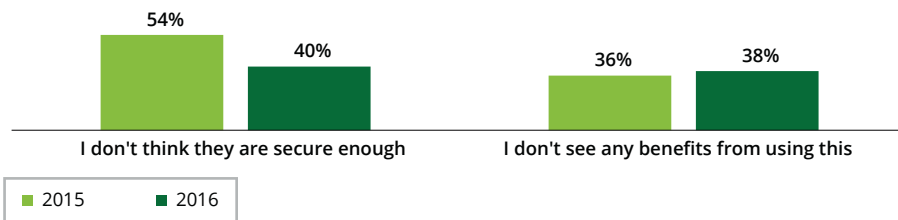
## How frequently, if at all, do you use your phone to do at least one of these things (Make an in-store payment)?



Source: USA edition, Deloitte Global Mobile Consumer Survey, July 2014, July 2015, August 2016  
 Base: All phone owners : 2014: 1,635, 2015: 1,828, 2016: 1776

Although the main reasons for not using mPayments haven't changed, there has been a 14% drop in people concerned about security. Just over one-third (38%) of people say they simply don't see the value in using the technology, slightly increased compared to last year.

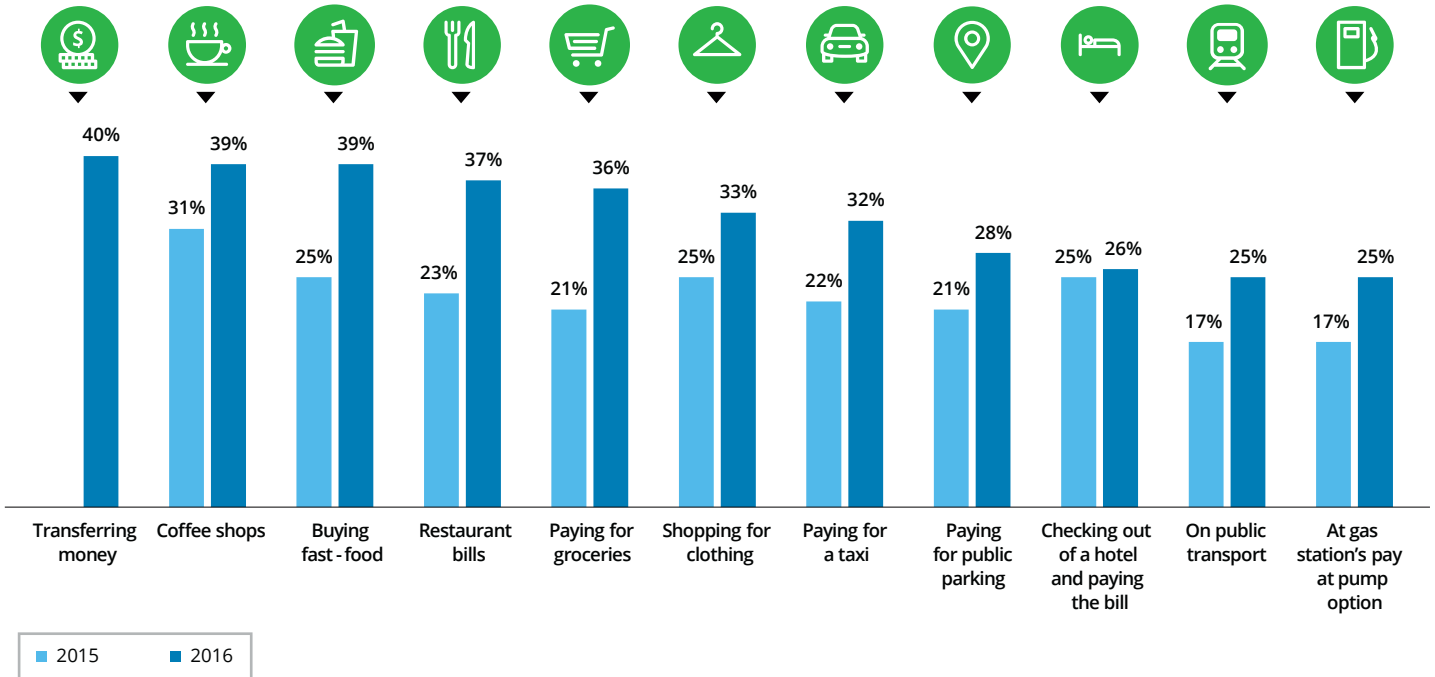
## What are the main reasons why you don't use your phone to make payments in-store?



Source: USA edition, Deloitte Global Mobile Consumer Survey  
 Base: Smartphone owners: Aug 2016, 1530, Smartphone owners that have never made an in-store payment: 1173  
 Base: Smartphone owners: Jul 2015, 1458, Smartphone owners that have never made an in-store payment: 1102

However, when consumers do use mPayments, more of them are seeing the value versus last year. The mPayments activity that consumers regard as most useful is transferring money, with 40% saying they find this functionality beneficial.

**In which, if any of the following scenarios do you find it beneficial to pay by using your mobile?**



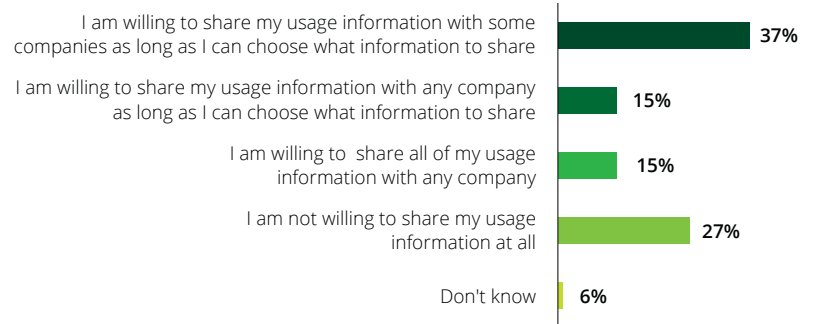
Source: USA edition, Deloitte Global Mobile Consumer Survey, Aug 2016  
 Base: Those that have made an in-store payment: 357

# Security and privacy: How do consumers feel about sharing their information?

As our phones take on the role of communications hub, they not only house a large amount of personal data, but they are also the conduit for transmitting much of that information. That makes security and privacy high priorities for mobile devices.

One of the outcomes of consumers' online activity—and often a prerequisite for its many benefits—is the sharing of personal information, from name and contact information to browsing history and location. Consumers are not necessarily averse to sharing information. In fact their willingness to do so has increased since last year, particularly among younger consumers. But they want to be the ones to determine what information gets shared. For example, more than half of consumers interested in connected devices express willingness to share usage data with companies, as long as they can choose which information to share. While only a small percentage of younger consumers are not aware of sharing any information, this number increases to one in three for the 55+ year olds.

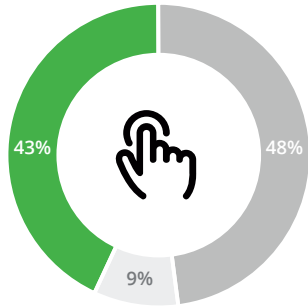
## To what extent, if at all, are you willing to share the usage information generated by a device that you own?



Source: USA edition, Deloitte Global Mobile Consumer Survey, August 2016  
 Base: Those who use or are interested in using smart devices 1386

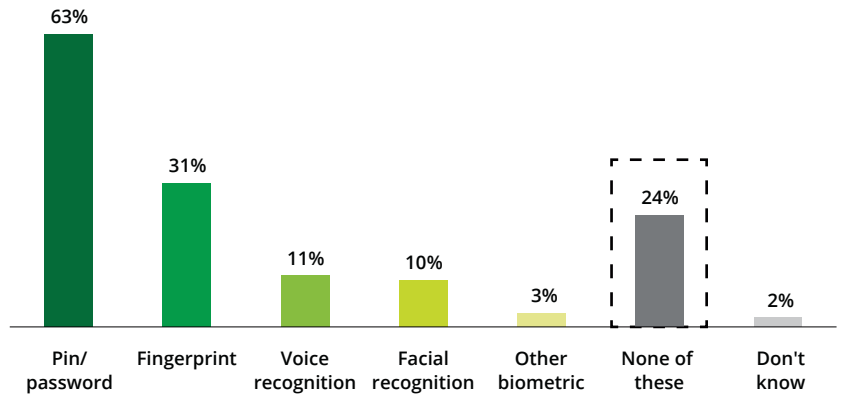
When consumers use their phones to make purchases, privacy and security issues become especially important. A number of security features are built into most smartphones that consumers can activate, from password protection to fingerprint readers. When unlocking their phones or authorizing mobile payments or other transactions, 63% of respondents prefer to use personal identification numbers (PINs) or passwords over fingerprint readers (31%). Nearly a quarter (24%) don't use any method at all to keep their phones secure.

**Does your mobile phone have a fingerprint reader?**



- Yes, my mobile phone has a fingerprint reader
- No, my mobile phone does not have a fingerprint reader
- I don't know

**Which, if any, of the methods listed below have you used to identify yourself when unlocking your phone, authorizing mobile payments or other transactions?**



Source: USA edition, Deloitte Global Mobile Consumer Survey, Aug 2016  
 Base: Smartphone owners 1530

# Where we buy: Manufacturers gaining market share

An important shift is taking place in terms of where and when consumers purchase their mobile devices. While carriers continue to be the number-one choice for smartphone purchases, both in-store and online, they are losing share to manufacturers, particularly with the coveted younger age groups. 25-34 year olds, who reported buying the highest number of smartphones are least attached to carriers.

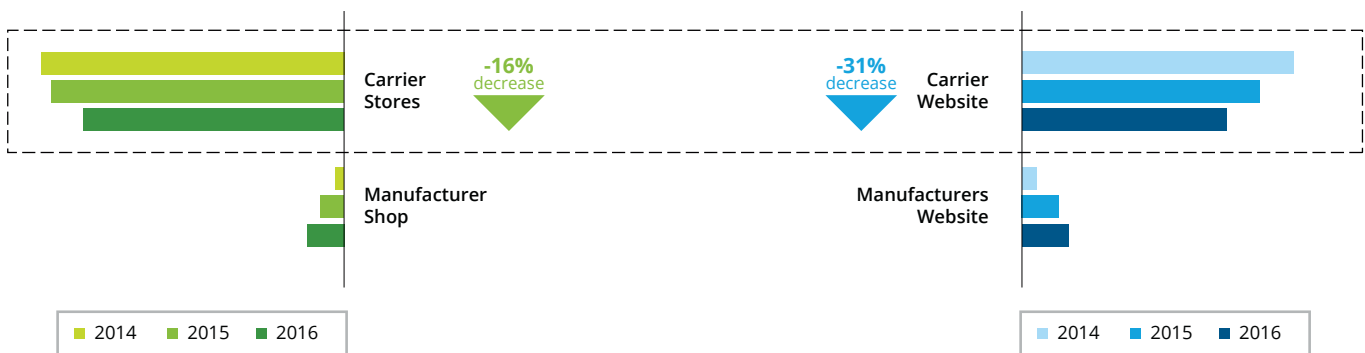
In general, since 2014 there has been a 16-point drop in the percentage of in-store buyers purchasing phones from carriers,

and a 31-point drop in the percentage of online buyers purchasing from carrier websites. On the other hand, there has been a significant increase in the percentage of consumers purchasing directly from device manufacturers.

Consumers tend to replace their phones more frequently than they do their tablets. Two-thirds (63%) purchased their current phones in 2016 or 2015. Compare this with tablets, which consumers upgrade far less frequently - two-thirds of consumers say they bought their tablets in 2014 or earlier.

While consumers are relatively consistent in what they do with their old smartphones after purchasing new ones, those reporting their old phones lost or stolen had a relatively large increase. About a quarter of phones are sold back into the marketplace, suggesting that a stronger trade-in program could open up market opportunities.

## You said you purchased your current phone in-store/online, which of the following best describes where you purchased it from?



Source: USA edition, Deloitte Global Mobile Consumer Survey, 2016

Base Graph 1: Smartphone owners who bought their own phones by year: 1103, 1631, 1436 ; In-store purchase: 798, 1156, 997

Base Graph 2: Smartphone owners who bought their own phones: 1103, 1631, 1436; online purchase: 283, 475, 439

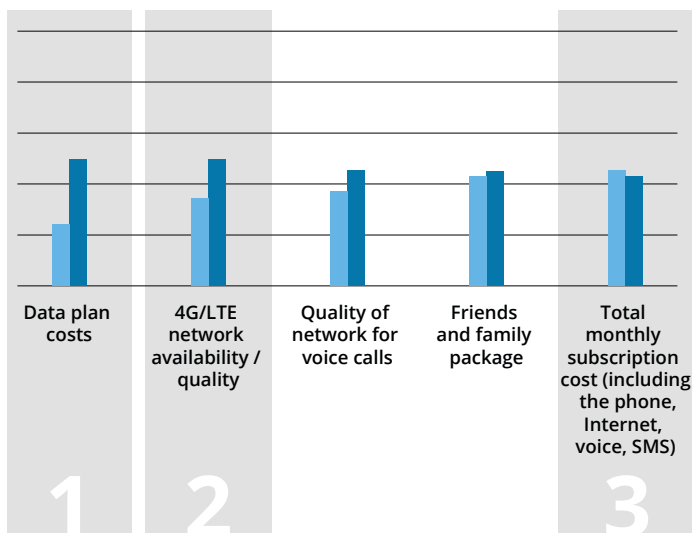
Note: Respondents who got their phone from a department store website 2%, a mobile phone shop 1%, a phone recycling company, an individual through a website 5%, or another means 2% have been omitted from this graphic. Additionally, respondents who buy their phones from mobile phone specific stores and websites have been omitted.

# Data plans: A differentiator for consumers

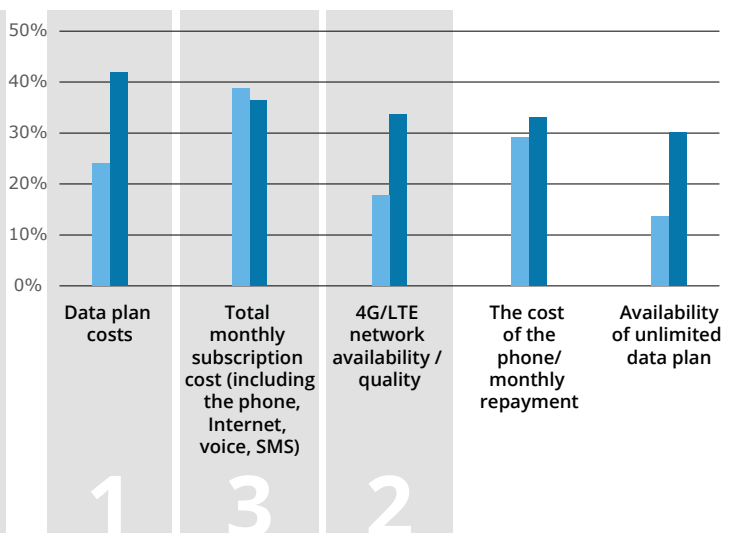
Data usage packages have long been a key differentiator when consumers are selecting a mobile operator, but as phones increasingly become command central for people on the move, the importance of data-centric services has escalated. Consumers list the cost of data plans and 4G/LTE availability or quality as their top reasons for choosing an operator. Similarly, data plan costs are the number-one reason consumers say they would switch operators.

**Why did you choose your current mobile operator? If you were to change your operator in the future, which, if any, of the following would be the reasons for changing it?**

Top 5 Reasons for Choosing Current Operator



Top 5 Reasons for Changing Operator in the Future



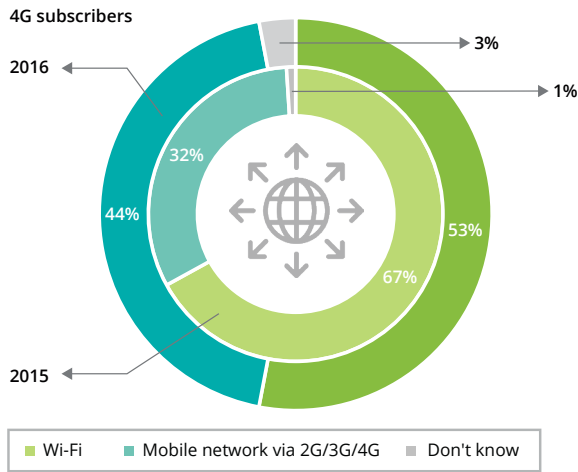
■ 2015 ■ 2016

Source: USA edition, Deloitte Global Mobile Consumer Survey, July 2015  
 2016: All phone owners: 1,776  
 2015: All phone owners: 1,828



Mobile networks such as 4G and LTE have begun to catch up with Wi-Fi as the preferred means of connecting to the Internet from mobile devices. While only a third (32%) of smartphone owners said they connected most frequently via mobile networks in 2015, this year 44% say this is how they choose to connect. Preference for mobile networks is most likely driven by the perception that 4G is faster than Wi-Fi in most locations.

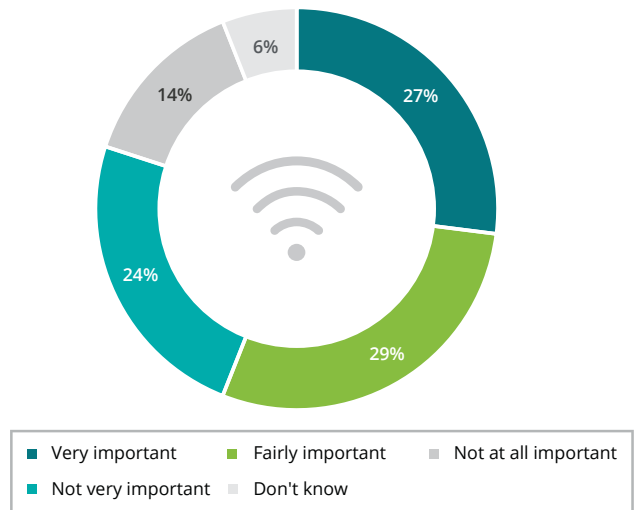
**Thinking about how you connect your devices to the Internet, which, if any of the following, types of connectivity do you use MOST OFTEN?**



Source: USA edition, Deloitte Global Mobile Consumer Survey, August 2015 and August 2016  
 Base: 2016 Smartphone owners 1530, 4G subscribers: 1217, Non-4G: 313; 2015 Smartphone Owners 1382, 4G Subscribers 995; Non-4G: 387

Fifth-generation (5G) mobile network standards are still being defined, but they have already begun to spark interest, particularly among certain consumer groups. Overall, more than half (56%) of consumers think 5G data speeds will be important. However, the 25-34 age group is far more likely to express enthusiasm, with 84% saying it will be important. With 5G yet to be fully defined, it may be difficult at this stage for consumers to really conceptualize what it would mean for them and why they would need it. In addition, with the speeds that 4G offers providing an even better experience than most Wi-Fi connections, consumers may generally be happy with the speeds they have today. Although once new applications that consume more bandwidth emerge, this sentiment may certainly change.

**If your carrier offered next generation wireless data speeds (e.g. 5G) how important would this be for you?**



Source: US edition, Deloitte Global Mobile Consumer Survey  
 Base: All Adults, 18-75

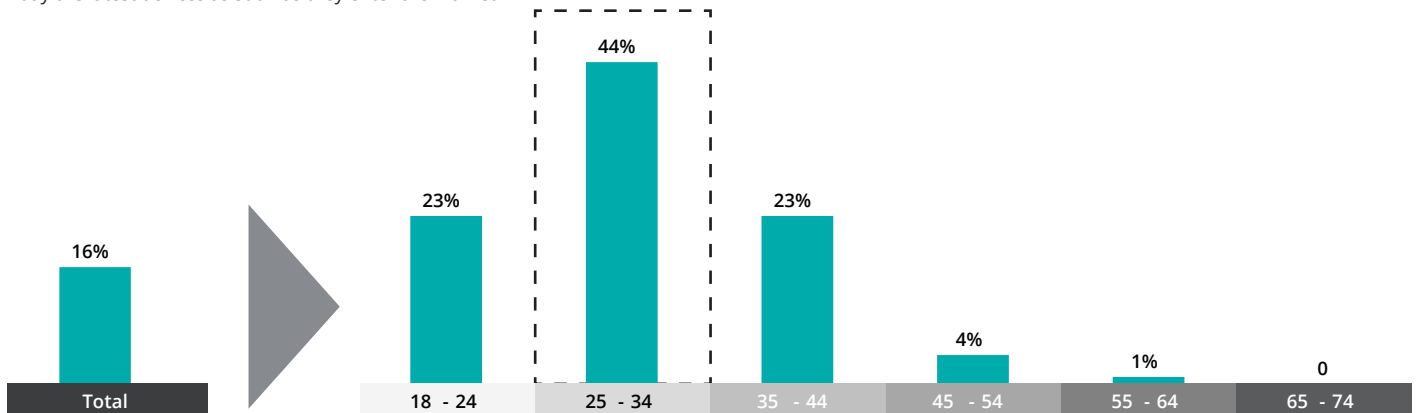
# The biggest mobile enthusiasts? Not the youngest

In a typical technology adoption curve, it is the youngest generation that usually demonstrates the highest levels of interest and use. In past years, our survey has confirmed this trend, with the 18-24 year-old group leading in mobile technology usage. But this year we are seeing some significant shifts, with 25-34 year-olds leading the charge—sometimes by a dominant margin.

The 25-34 year demographic is twice as likely to classify themselves as “early technology adopters” as adjacent age groups, with 44% saying they buy new devices as soon as they hit the market. Indeed, they purchased more smartphones in 2016 than any other age group, making them a lucrative target audience for the latest gadgets. But they have a substantively different smartphone purchasing profile than other groups, with the least attachment to carrier stores, and most to manufacturers.

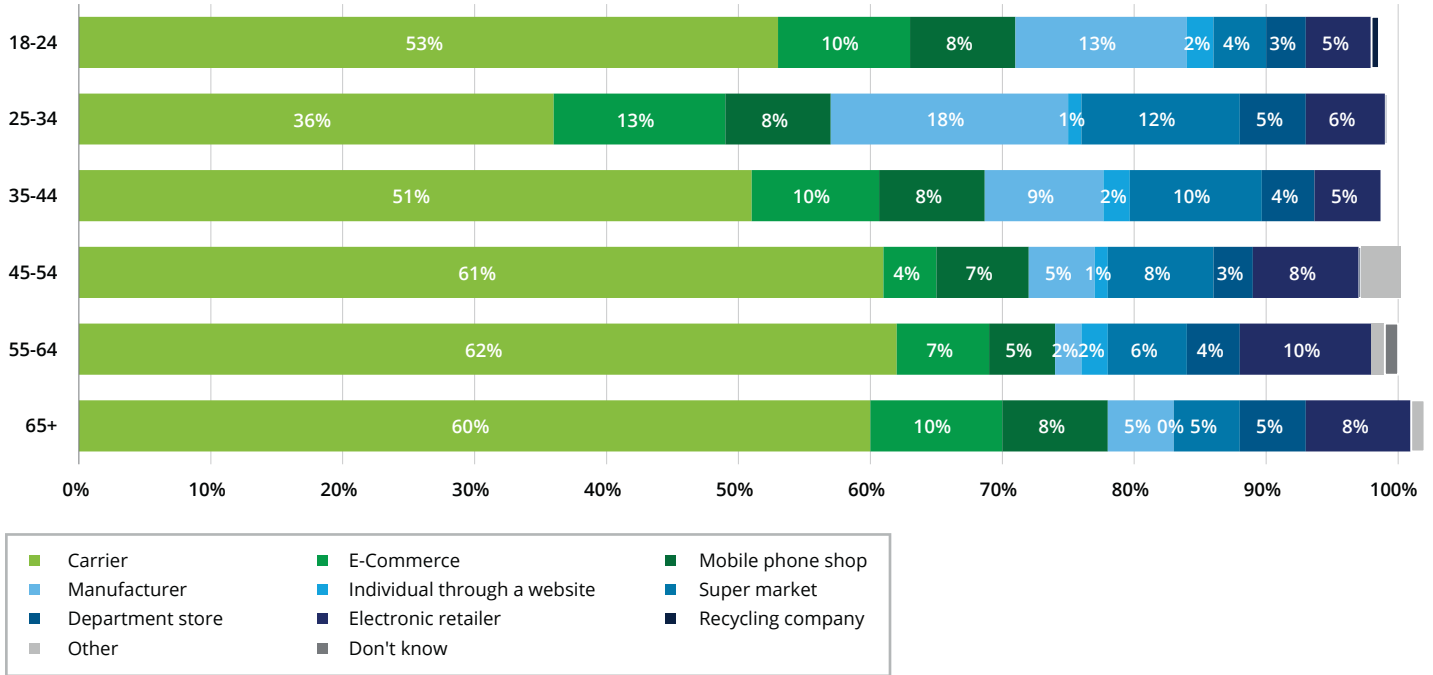
## Which of the following best describes your attitude toward new devices?

I buy the latest devices as soon as they enter the market



Source: USA edition, Deloitte Global Mobile Consumer Survey, August 2016  
Base: All: 2000, 18-24: 264, 25-34: 379, 35-44: 352, 45-54: 389, 55-64: 364, 65+: 252

How did you purchase your current smartphone?



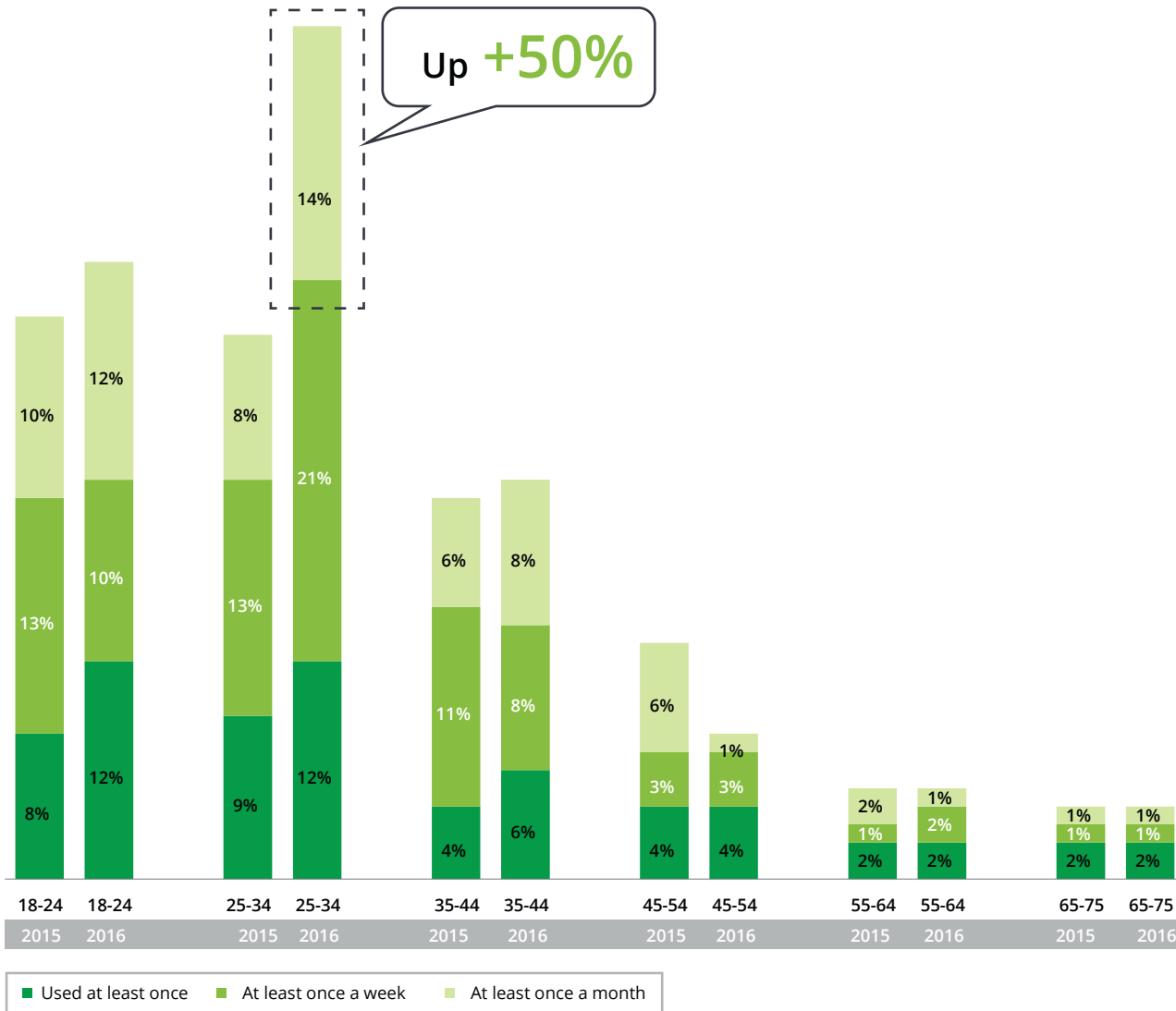
Source: USA edition, Deloitte Global Mobile Consumer Survey, Aug 2016

Base: Those who bought their own smartphones, aged 18-24: 175; 25-34: 270; 35-44: 247; 45-54: 240; 55-64: 205; 65+: 112

As “mobile natives” the 25-34 demographic is showing some of the highest usage patterns for mobile devices in 2016 – often higher than 18-24 year-olds. For example, this group had a dramatic uptick in VoIP usage this year, with 40% reported usage. This is an increase of 21 percentage points over last year—a far bigger increase than for any other age group. These consumers are also glued to their phones: more than three-quarters of them say they check their phones in the middle of the night.

mPayments are another case in point. At 21%, 25-34 year-olds are twice as likely to make weekly in-store mobile payments as 18-24 year-olds, the next-most frequent users of mPayments. In addition, between 2015 and 2016, the percentage of 25-34 year-olds who had used mPayments at least once rose more than 50%.

**How often, if at all, do you use your mobile phone to make an in-store payment?**



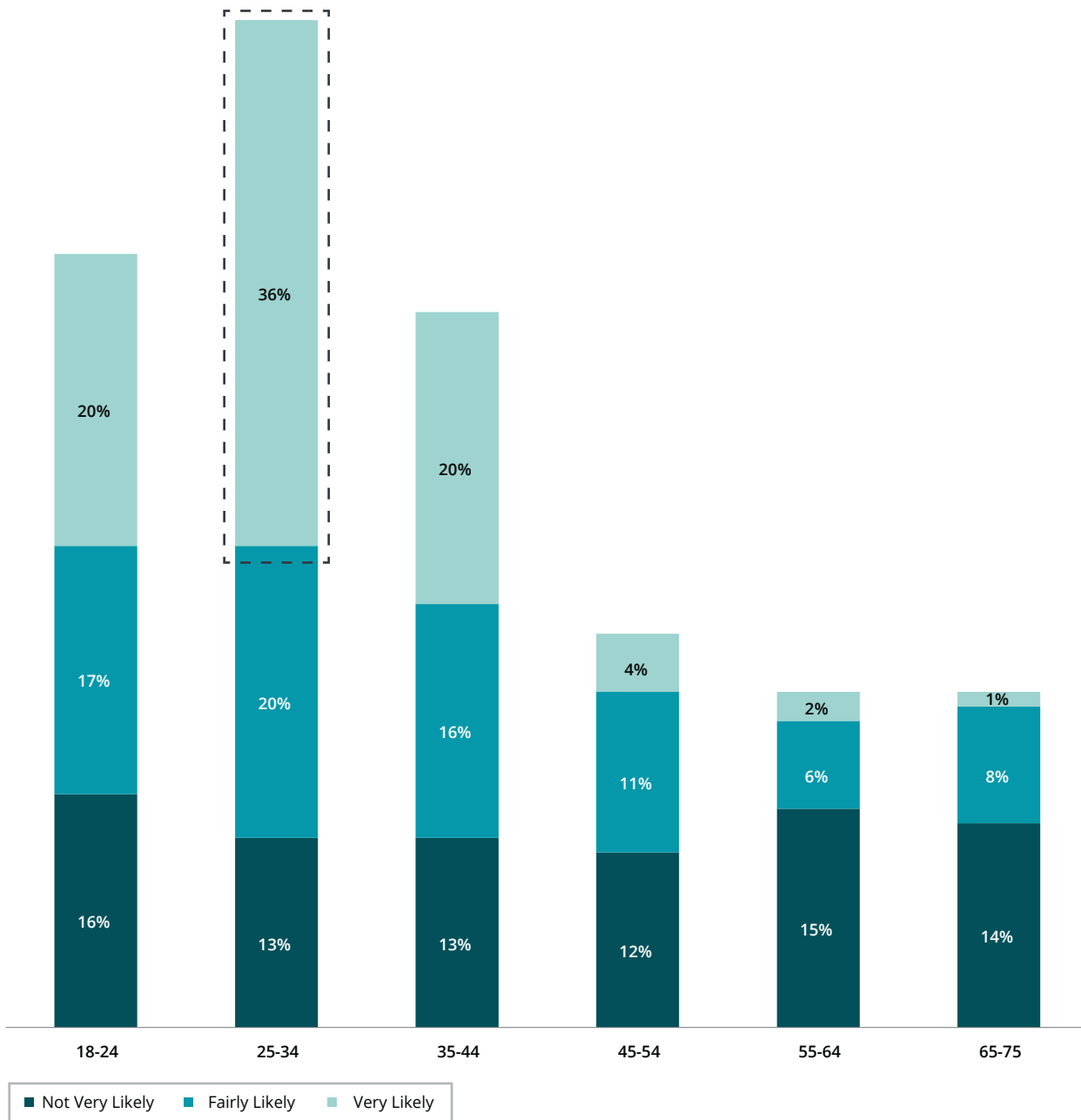
Source: USA edition, Deloitte Global Mobile Consumer Survey, Aug 2015 and August 2016  
 Base: Those that have made an in-store payment: 2015: 333 2016: 363

This age demographic is also the most vocal IoT enthusiasts. They continue to be the biggest users of wearables, but their interest in other IoT solutions, particularly those involving the connected home, has grown. In almost all categories, they are the most likely to see value in home IoT solutions, and they are also more willing to pay for them. For example, 80% say they would pay more for IoT-enabled home monitoring versus 50% of the population as a whole.

IoT car solutions are of particular interest to 25-34 year-olds, and many say they are willing to pay significantly more for a range of solutions, including entertainment and automation. In addition, they are almost twice as likely as the next-highest demographic (18-24 year-olds) to say they are “very likely” to buy an autonomous car.

Explaining why we are seeing this shift toward 25-34 year-olds as the leading champions of mobile is difficult. The reason could be simply a sign that a generation that has grown up with technology is coming into its own. Or perhaps the shift illustrates the confluence of rapid growth in new technologies with a group’s ability to pay for them. Regardless of the reason, the enthusiasm of this demographic for mobile technology has significant implications for players seeking ways to monetize their products and services.

**How likely would you be to buy an autonomous car in the next 12 months?**



Source: USA edition, Deloitte Global Mobile Consumer Survey, Aug 2016  
 Base: Those who would own or ride in an autonomous car now: 332

# Mobile ubiquity: It's driving the future

The increased penetration of mobile devices, the growing reach of mobile networks, and the prospect of exponentially faster data transmission are all converging to create a powerful ecosystem of mobile applications and markets. As our survey results indicate, consumers are ready to embrace this new mobility-enabled world and all that it promises.

Nevertheless, questions remain. How will the device landscape change over the next

several years? Will growth in mobile devices continue or will some new technology, such as VR or IoT, gain traction in the public's imagination. How will consumers' relationship with their mobile providers evolve, and how will carriers ensure ongoing customer engagement? In the world of mobile, the growth has been phenomenal so far, and future will undoubtedly be exciting.

# About the survey

This year's survey is the biggest and most extensive to date, covering 5 continents, 31 countries, and nearly 53,000 respondents. The insights in this report are extracted and analyzed from data corresponding to 2,000 survey respondents from within the United States.

Fielded by an independent research firm, the survey focuses on consumer behaviors, trends, and opinions for a broad range of wireless and mobility products and services.

In addition to exploring year-over-year results and key insights, the survey is also designed to highlight differences between consumers across generational divides—capturing findings from six distinct age groups (ranging from 18 to 74 years of age).

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To learn more about Deloitte's 2016 Global Mobile Consumer Survey, please visit:  
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