



Igniting Growth in Consumer Technology

The consumer technology industry's decade of unprecedented growth is coming to an end as the smartphone market hits maturity. The 2016 Accenture Digital Consumer Survey for communications, media and technology companies polled 28,000 consumers in 28 countries on their use of consumer technology. The research indicates that consumer demand is sluggish across a number of categories from smartphones to tablets and laptops. And unfortunately, demand for the next generation of devices enabled by the Internet of Things (IoT) is not growing fast enough to offset declines in traditional categories.

Price, security and ease of use remain barriers to adoption of IoT devices and services. For the majority of consumers, the lack of a compelling value proposition is reflected in concern over pricing. Security is no longer just a nagging problem, but a top barrier as consumers choose to abandon products and services over security concerns. And, while progress has been made, challenges with ease of use and customer experience remain roadblocks.

However, it's not all gloom and doom. Growth in new categories will happen—and when it does, it can happen very quickly—but the industry needs to move NOW to drive its next phase of growth. The winners will be those who can work with their ecosystem partners to push disruptive innovation by connecting humans with technology in ways that meet their most fundamental needs.

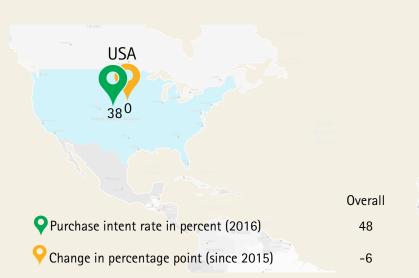
Growth is stalling and IoT has not yet filled the gap

Our research indicates there are four main reasons why market growth for traditional devices is plateauing. Meanwhile, demand for IoT devices is much slower than initially hoped.

1. Smartphone market has reached maturity

The days of huge growth in the smartphone market appear to be over. Only 48 percent of consumers plan to purchase a smartphone in the next 12 months (see Figure 1). This is a six-point drop from the purchase intent rate last year and a more than nine-point drop from the 2014 peak. The largest drops in

Figure 1: Smartphone purchase intent by country



purchase intent are in countries previously experiencing rapid growth in smartphone purchase, including China (from 82 to 61 percent) and South Korea (from 64 to 54 percent). The India market dropped from a peak of 80 percent in 2014 to 68 percent. The US and UK markets remain completely flat in purchase intent at 38 percent and 37 percent respectively.



Sample: All respondents (n=28,000)

A hefty 80 percent of online consumers now own a smartphone. This represents a huge increase of penetration of more than 25 percent points over the last five

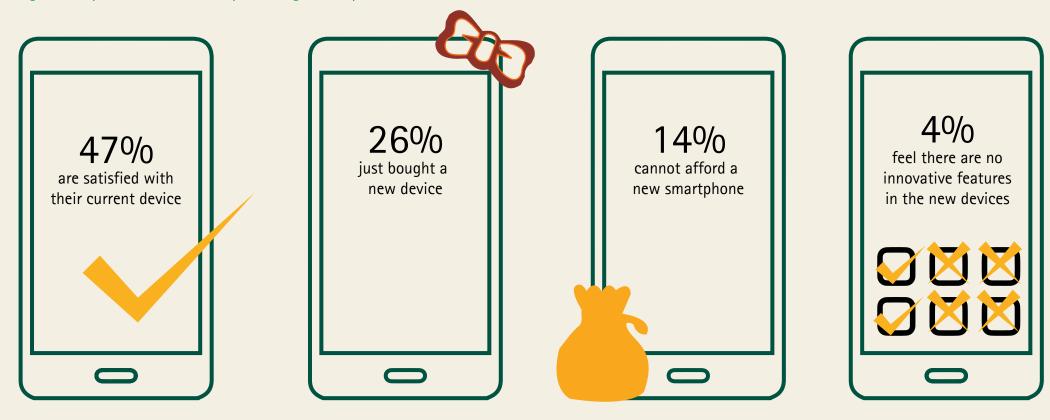
years. China is now at 89 percent penetration among the online population and India is at 80 percent. Only Japan, Slovakia and Turkey have less than 70 percent smartphone ownership.

2. Lack of "wow" factor to attract new consumers

Almost half of the consumers not planning to purchase a smartphone this year indicate it is because they are happy with their current device (see Figure 2). Another 26 percent say they recently purchased a new smartphone and 4 percent indicate they do not plan to buy a smartphone because there are no

innovative features in the new devices that interest them. This seems to indicate that the consumer technology industry has not delivered a "wow" factor that is attractive enough to consumers to drive replacement upgrades.

Figure 2: Top four reasons for not purchasing a smartphone



Sample: Respondents not planning to buy a smartphone (n=14,485)

3. It is not just smartphones—growth is stalling across all traditional categories

This year's research shows the largest declines Accenture has seen in a range of product categories. In addition to the six-point drop in purchase intent for smartphones, the survey revealed a nine-point drop in purchase intent for tablets, an eight-point drop in televisions and a 6 point drop for laptop computers. Overall, 20 percent plan to decrease spending versus only 7 percent in 2014. That is a big swing and confirms that the slowing growth will not be offset by increased spending. Only 13 percent plan to increase spending on smartphones, tablets and laptops compared to 33 percent in 2014 (see Figure 3).

Figure 3: Change in spend on traditional devices



Sample: All respondents above 17 years old (n=26,568)

4. IoT has not yet ignited growth

Unfortunately, the market for IoT devices will not grow fast enough to offset declines in traditional categories. In fact, the growth in demand for IoT devices is much slower than initially hoped for—there has been virtually no increase in purchase intent over last year (see Figure 4).

Figure 4: Purchase intent for IoT devices in the next 12 months

Products	Purchase intent rate in percent (2016)	Change in percentage point (since 2015)
Smartwatch	13%	1%
Fitness monitor	13%	1%
Connected home surveillance cameras	11%	1%
Smart home thermostat	9%	0%
Personal drones	7%	1%

Sample: All respondents (n=28,000), except for connected home surveillance cameras and smart home thermostat (all respondents above 17 years old; n=26,568)

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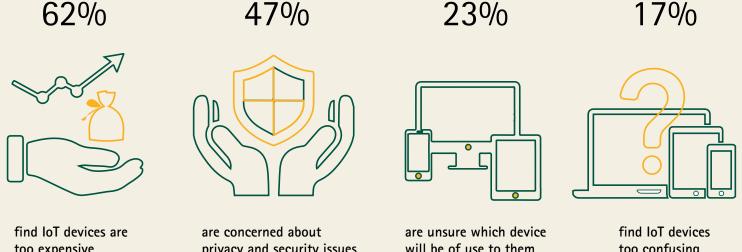
The slow pace of adoption of new technologies is a major disappointment for the industry. While there has been a lot of momentum in enterprise IoT innovation and commercial solutions are relatively easy to visualize, the industry has not delivered well-articulated consumer solutions thus far. Our research shows there are three main roadblocks preventing greater adoption—price, security concerns and ease of use. Moving from technology-led innovation to innovation that pairs technology with a deep understanding of core consumer needs will be critical to accelerate IoT device adoption.

1. Lack of value perception raising concern over price

Consumers report that price is the top barrier to the purchase of IoT devices, with 62 percent believing these devices are too expensive (see Figure 5). This perception is almost consistent across age groups and countries—with mature markets only slightly less concerned about the price than emerging markets. Russia, Romania and the Philippines report the highest share of consumers stating price is a barrier.

Consumers identified as early adopters of IoT and early majority are less concerned about price than late majority and late adopters. They are willing to spend on devices when they believe there is a compelling value proposition.

Figure 5: Barriers to purchasing IoT devices and services



Sample: All respondents (n=28,000)

too expensive

privacy and security issues

will be of use to them

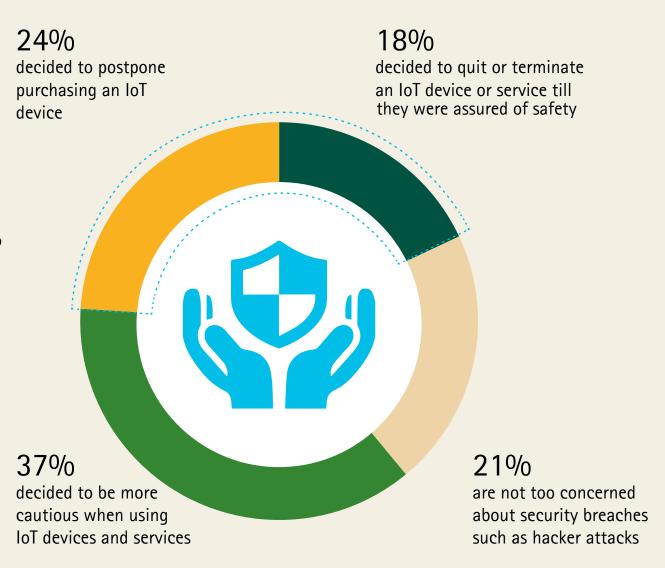
too confusing

2. Security fears shutting down use

Security has moved from being a nagging problem to a top barrier as consumers are now choosing to abandon IoT devices and services over security concerns. More than two-thirds of the consumers surveyed are aware of the recent security breaches such as hacker attacks resulting in stolen data or malfunction. Out of the consumers aware of hacker attacks and owning or planning to own IoT devices in the next five years, 18 percent decided to terminate the use of the devices and related services until they get safety guarantees (see Figure 6). These are customers who once saw value in the device or service but now perceive the risk to outweigh that value. An additional 24 percent decided to postpone purchase of an IoT device or service subscription they were planning due to concerns over security.

Overall, nearly half (47 percent) of consumers cited "privacy risk/ security concerns" as a barrier to adoption with Indonesia (60 percent), South Africa and China (both 58 percent) reporting the greatest concerns. This indicates that the consumer technology industry does not have the fundamentals in place—and the consumer trust established—to push into more personalized and sensitive areas as it searches for the next wave of innovation.

Figure 6: Impact of security concerns on IoT usage

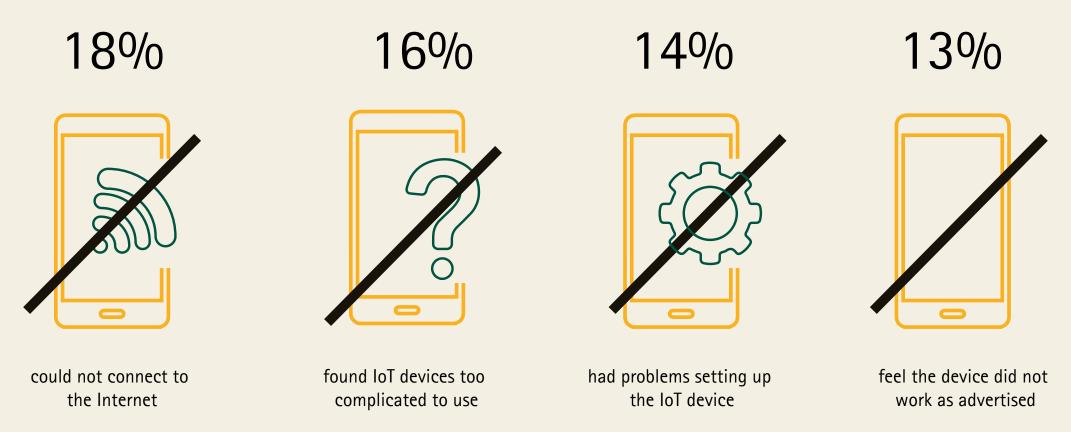


Sample: All owning or planning to buy an IoT device and aware of data risk (n=16,199)

3. Ease of use still a barrier to adoption

While the industry has definitely made some progress, ease of use and customer experience are still lagging. Two-thirds (64 percent) of consumers experienced a challenge when using a new IoT device this year (see Figure 7). While this is down from 83 percent last year, it is still far too high to drive adoption.

Figure 7: Top challenges in using IoT devices and services



Sample: All owning an IoT device (n=10,824)

Three actions to take now to ignite the next five years of growth

Certainly it is not all gloom and doom. Consumer technology comprises a more than US\$200-billion, highly profitable global industry with customers using their products extensively, anytime, anywhere. But with evidence of stalling consumer interest in spending on both mainstay technologies and IoT devices, consumer technology companies must act now to ignite their next wave of growth. Growth in new categories will happen, and can happen very quickly. But companies need to fix the fundamental enablers that will help them ramp up when disruptive innovation occurs.

1. Fix the three known roadblocks to adoption



Offer a compelling customer value proposition

Given that price is the top barrier to the purchase of IoT devices, consumer technology companies need to improve the value equation in consumers' minds to increase adoption. This means companies must either keep price points as they are and enhance the perceived value of devices and ease of use or find ways to take cost out of the system and

reduce price. For example, consumers who are not concerned about hacker attacks are ready to pay a higher average price than those that are security concerned (those who stopped using or postponed purchases of IoT devices). For wearable health and fitness devices and smartwatches, the aggregated US market value gap for the next five years between the preferred price levels of those security concerned and not security concerned is US\$7.4 billion.



• Ensure a superior customer experience

Some progress has been made. Last year, IoT devices were viewed as too complicated. This year's research shows the industry has taken a step in the right direction in removing that barrier but there is still much work to be done.



Build security and trust

Security is a barrier but it is also an enabler, if companies can establish consumer trust. Addressing physical safety and security needs (through solutions such as connected home surveillance) is a top use case of interest to consumers.

2. Ignite innovation to avoid stalling



Shift investment to "disruptive innovation"

Investment in incremental, sustaining engineering—particularly in the mature product categories such as smartphones—is producing diminishing returns. Innovation will most likely come from increasing investment in disruptive engineering technology. Fifteen years ago, the television industry was in a similar quandary, suffering from maturity and a lack of growth. The invention of flat screen televisions drove a new growth curve that lasted more than a decade. The television industry has demonstrated what disruptive engineering can ignite. But it also acts as evidence that periodic breakthrough does not sustain long-term growth as the industry is once again facing plateauing growth.

The notion of striving for continuous disruption is an important mindset. If consumer technology companies could create a high performing team whose sole purpose is to explore disruptive breakthroughs, that group may generate uneven short-term results but with cross-pollination could bring a bigger "home run" culture to the entire enterprise. In addition, such a capability would need to be free of the responsibility of sustaining current revenue and profit margins to be able to take a fresh look at innovation in products, services, and end-to-end solutions on a 12-to-24 month horizon.



• Leverage IoT to create new types of solutions and customer experiences

IoT offers a better possibility of creating solutions that meet customer needs than ever before. Now that IoT devices and a more open technology environment are a reality, it may be time to go back to the shelf to see what previous innovation could be market-viable and attractive to consumers. Through this approach or new research, consumer technology companies need to come up with breakthrough innovations—whether in new device form factor, service or full solution—that responds to primal human needs and connects humans to technology in ways they are not able to do today. Use cases, of course, need to be attractive enough for consumers to adopt and appeal to a wide audience to drive demand at scale. When use cases are attractive enough, growth can happen very rapidly.

While it is unlikely that services could be the single strategy to propel growth, they do represent an opportunity for device manufacturers to create incremental revenue. For example, mobile payments have developed rapidly with strong market awareness. Ten percent of consumers use mobile payments on a weekly basis, with India, China and Turkey having the strongest online adoption. Better security and privacy measures rank near the top of the list in what would encourage more consumers to adopt mobile payments. From a broader service perspective, interest in services related to convenience, safety or security is high, offering insights into potential new services to pursue. The greatest opportunities are likely to be in leveraging all of the rich data offered by connected IoT devices to create pragmatic, integrated end-to-end solutions for consumers.

3. Think ecosystem—it's time to co—innovate with partners



• Get serious about ecosystems

Sharing data and creating integrated services across multiple companies—such as building a connected home through an integrated home security camera, thermostat, door locking and more—provides consumers with a richer experience and an opportunity for each company to offer a more robust set of services. In fact, a new round of ecosystem innovation can ignite consumer demand and set the consumer technology industry back on the growth path. Therefore, it is time to get serious about ecosystems. While many have ecosystem partners, few are sufficiently co-innovating with them to create solutions that are more complete in terms of tightly bundled devices, software, apps and services. Action oriented ecosystem partnerships will be the foundation of accelerated growth in the IoT . Companies need to focus on these ecosystem solutions for IoT use cases that relate to the day-to-day lives of consumers—with partners from other industries such as healthcare, automotive and energy.



• Leverage strengths, including the data, of each player

Increasingly no individual company can develop and deliver the holistic experience customers demand. Instead the industry needs to look for collaborative partnerships that leverage the unique capabilities of different players. The range of strengths needed include brand, customer experience design, hardware engineering, software development, value-added services and customer data insights. In particular, data is an extremely valuable new asset that device vendors have at their fingertips. Without infringing on privacy or causing concerns, the aggregated data generated on user behavior creates both an opportunity to directly develop new services for consumers, and also a valuable asset to offer ecosystem partners in the co-development process.



Are you prepared to ignite your business for its next wave of growth?

- 1. Have you defined the superior and secure customer experience that can be delivered at an attractive price point?
- 2. How would reallocating more of your budget from sustaining engineering to disruptive engineering help you be more innovative?
- 3. Do you have strategies to exploit IoT technologies to create new customer experiences and categories of products?
- 4. What should be the optimal organization structure to support innovation to generate new business models and revenues streams, while protecting current revenue streams?
- 5. Are you taking advantage of your ecosystem partners to create solutions that are more complete?

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About the 2016 Accenture Digital Consumer Thought Leadership program

The Accenture Digital Consumer Thought Leadership program for communications, media and technology companies is based on a survey which was conducted online between October and November 2015, with 28,000 consumers in 28 countries, including Australia, Brazil, Canada, China, Czech Republic, France, Germany, Hungary, India, Indonesia, Italy, Japan, Mexico, the Netherlands, the Philippines, Poland, Romania, Russia, Saudi Arabia, Slovakia, South Africa, South Korea, Spain, Sweden, Turkey, the United Arab Emirates, the United Kingdom and the United States.

The sample in each country is representative of the online population, with respondents ranging in age from 14 to 55 plus. The survey and related data modelling quantifies consumer perceptions of digital devices, content and services, purchasing patterns, preference and trust in service providers, and the future of their connected lifestyle.

About Accenture

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