The Internet of Things: The Future of Consumer Adoption

ACQUITY GROUP’S 2014 INTERNET OF THINGS STUDY
Based on more than 2,000 consumer surveys across the U.S., Acquity Group’s 2014 Internet of Things (IoT) Study examines consumer adoption of connected devices and smart technology now and in the future.
While the Internet of Things is still in its infancy, this technology is poised for massive growth in the next decade. We are already seeing computer- and sensor-infused objects in a variety of industries, including automotive, energy, consumer electronics and in-home appliances.

As it becomes less expensive to integrate technology into physical objects, we will see more application and adoption of this technology.

The Internet of Things will have major implications for both business-to-business (B2B) and business-to-consumer (B2C) companies in the next five years.

As a leading digital agency that is now part of Accenture Interactive, Acquity Group surveyed more than 2,000 U.S. consumers on their behavior and preferences when it comes to the Internet of Things and expected adoption of connected technology. Based on the data, this white paper provides an in-depth look into consumer behavior across a variety of areas related to connected technology, including current and future adoption plans and potential barriers to mass consumer penetration. For B2B and B2C companies, the research provides a full picture into how consumers view IoT technology and the growth potential of this market in both the short and long term.
Mainstream Consumer Adoption of IoT Devices and Technology is Inevitable

Consumer adoption of network-connected devices, such as in-home smart appliances and wearable technology, is on the rise. Thirty percent of consumers already own or plan to purchase an in-home IoT device in the next two years. In-home IoT devices include smart thermostats, self-driving vacuum cleaners and smart refrigerators.

While consumer adoption of connected technology will be more gradual in the short term, widespread adoption will be inevitable over the next five years.

Currently, 7 percent of consumers own a wearable IoT device and 4 percent of consumers own an in-home IoT device. Nearly two-thirds of consumers plan to buy an in-home device in the next five years and wearable technology ownership will double by 2015—increasing from 7 percent in 2014 to 14 percent by 2015. By 2016, wearable technology is expected to double again and reach a total of 28 percent adoption rate.

### PROJECTED NEW ADOPTION OF CONNECTED TECHNOLOGY BY CONSUMERS

- **Smart thermostat**
- **Connected security system**
- **Smart refrigerator**
- **Wearable fitness device**
- **Smart watch**
- **Self-driving vacuum cleaner**
- **Wearable heads up display**
- **Smart clothing**
Consumers More Likely to See Value in Health & Fitness Wearable Technology

Among wearable technology devices, wearable fitness applications and technology stand to see the most growth in the short term, with 13 percent of consumers planning to purchase within the next year and a total of 33 percent looking to adopt in the next five years. Smart watches are the second most popular wearable device, with 5 percent planning to purchase in the next year and a total of 23 percent planning to adopt in the next five years.

Smart watches follow with 8 percent of consumers planning to adopt in the next year and 25 percent planning adoption in the next five years.

Smart clothing and heads-up displays are the least likely to catch on, with only about 3 percent of consumers expecting to purchase either type of device in the next year. In the next five years, 14 percent of consumers expect to purchase smart clothing and 16 percent expect to purchase a headset wearable device.
Majority of Consumers Unfamiliar with “Internet of Things” and Other Barriers to Adoption

Although the study demonstrates mass adoption of connected technology is likely in the long term, the majority of consumers (87 percent) hadn’t heard of the term, “The Internet of Things,” prior to the study. In fact, the top barrier to mass adoption of this technology according to Acquity Group’s research is a lack of both awareness and value perception among consumers.

Sixty-four percent of consumers have not purchased an in-home IoT device because they were unaware that items like smart fridges and smoke detectors are available for purchase; 40 percent of consumers did not know that wearable technology was available in the marketplace.

Lack of awareness is not the only barrier to adoption for in-home IoT devices. Consumers aware these devices are available for purchase said their number one reason why they haven’t purchased in-home smart technology was:

- Concerns with price: 23%
- Other: 18%
- Lack of perceived value: 36%
- Concerns with privacy: 23%

For wearable technology, consumers have similar concerns that could hamper adoption, with the number one reasons staying the same:

- Concerns with price: 26%
- Other: 25%
- Lack of perceived value: 30%
- Concerns with privacy: 19%

A series of recent, highly public data breaches that have plagued major retailers and companies have contributed to greater security concerns among consumers related to wearable IoT technology. Fifty-seven percent of consumers said they are less likely to purchase wearable technology because of these hacks and data breaches.

Despite the lack of interest in the short term, the long-term prospects for growth are very strong. Sixty-five percent of consumers plan to adopt connected technology at some point in the future.
Usefulness, Price, Security and Privacy are Concerns, But Companies Can Overcome Them

Since many hurdles associated with widespread IoT adoption stem from lack of understanding about the benefits of smart technology and connected devices, better educating consumers will be an important factor in growing this market.

Acquity Group’s research revealed that companies can overcome potential barriers such as usefulness, price, security and privacy through a variety of means.

As a starting point, companies that sell or are planning to sell in-home smart technology can focus on some of the most important features consumers listed beneficial. These include:

» Location-based coupons or offers delivered to their mobile device for frequently purchased foods

» Recipes on their mobile device that they can create with the ingredients in their refrigerator

» Money-saving tips and information about the least expensive place to purchase favorite products

The majority of consumers are open to purchasing connected devices and products instead of the everyday items they’re used to. Seventy-one percent of consumers would purchase a smart refrigerator if offered at the store instead of the standard model, and 76 percent would purchase a smart smoke or CO detector. This suggests that point-of-sale information from sales associates and promotions could be effective ways for retailers to increase sales of certain types of connected technology.

While price is a factor for many consumers, it is not the largest barrier to adoption and varies depending on the type of device. In fact, most consumers are willing to pay a premium for connected technology, especially when it involves safety:

» Price isn’t a major factor in concerns about smart in-home devices. Roughly one in five consumers believes smart smoke detectors are too expensive, compared to 83 percent of consumers who believe smart cars are too expensive.

» Consumers are more likely to pay a premium on a smart home device that offers safety [e.g. a smart smoke alarm] over novelty [e.g. a smart fridge] (83 percent of consumers were willing to pay more for a smart alarm, compared to 59 percent who were willing to pay more for a smart refrigerator).

» Twenty-five percent of consumers express concerns about the price of maintaining a smart fridge; only 16 percent of consumers express concerns about the price of maintaining a smart smoke alarm.

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» Twenty-five percent of consumers express concerns about the price of maintaining a smart fridge; only 16 percent of consumers express concerns about the price of maintaining a smart smoke alarm.
Despite concerns with security and privacy, consumers incentivized with coupons or helpful information are open to sharing data with third parties, such as brands, manufacturers, friends or family. Forty percent of consumers are willing to share data from their wearable devices with retailers or brands in exchange for coupons, discounts or information. This is compared with only 9 percent who would do so without incentives.

An even larger percentage would share data from their cars for rewards, especially in the form of discounts and special offers. Sixty percent of consumers would share data from their car with the manufacturer if offered a free maintenance session. More than half of consumers would share data from their car if offered coupons and discounts based on frequently traveled routes or current location.

**I WOULD BE WILLING TO SHARE DATA FROM MY CAR WITH THE CAR’S MANUFACTURER, IF ___________.**
Awareness and Perceptions Differ by Gender and Technology Adoption Preferences

There were several important differences throughout these demographic categories. Forty-five percent of mass consumers planned to purchase in-home connected devices within the next two years, and 92 percent planned to purchase by 2019. Three in four “late adopters” said they would purchase an in-home IoT device in the next five years.

In terms of gender differences, men viewed themselves slightly further along the adoption curve than women:

» Men are more than twice as likely as women to have heard of IoT and also more likely to consider themselves early adopters.

» Men are more likely than women to already own or plan to purchase an IoT in-home device in the next year (16 percent vs. 10 percent).

» Men and women answered similarly concerning adoption of wearable tech (7 percent versus 6 percent).

Men and women differ when it comes to incentives for sharing data from connected vehicles:

» Women are slightly more likely than men (54 percent vs. 47 percent) to share data from their connected car in exchange for location-based coupons or discounts.

» Men are more likely than women (33 percent vs. 22 percent) to share data from their connected car if informed of potentially interesting locations along their route.

» Men and women answered similarly concerning sharing data from wearable tech.

Across age and family demographics, Acquity Group discovered that parents are more likely to purchase in-home IoT technology and wearable devices.
Conclusions and Recommendations

Acquity Group’s study suggests an overall shift in consumer perception about connected technology and demonstrates openness for adoption in the coming years.

Long-term potential adoption rates across categories of consumers underscore the significant opportunity for retailers and companies. Even though widespread adoption of IoT technology is not here yet, the market is showing future signs of massive consumer adoption of connected devices and objects.

Businesses can capitalize on revenue opportunities in the IoT space by demonstrating value of devices to consumers. Despite concerns with security and privacy, consumers incentivized with coupons or helpful information are more open to sharing data with third parties, such as retailers, manufacturers, or friends and family.

The largest opportunities for brands lie in presenting consumers with specific, measurable results from the data they are sharing. Companies using data to connect with consumers via IoT devices should ensure they’re offering value every time – whether that be through special offers targeted specifically to past behaviors, or information on how to improve the quality of daily life through specific means.

A key takeaway is that success in the future of IoT will stem from providing an exceptional, easy-to-use customer experience with compelling benefits, no matter the industry or type of product. This can be achieved with a solid strategy, powerful technology, efficient change management and a cutting-edge digital presence.
The Acquity Group 2014 State of the Internet of Things Study surveyed more than 2,000 consumers across the United States to gain insight into their preferences for and barriers against use of the Internet of Things. The survey analyzed consumer behavior across a variety of areas, including current adoption, perception, barriers and plans for future adoption. Results were broken down based on demographics, including age, gender and location.

As a leading provider of digital marketing, interactive design, and eCommerce solutions, Acquity Group works with some of the world's largest brands to improve the user experience, leading to increased revenue and loyalty. Acquity Group completed this survey to help CMOs in B2C and B2B companies gain a better understanding of how consumers view IoT and connected technologies, as well as future plans for adoption.

About Acquity Group
Acquity Group is a leading Brand eCommerce® and digital marketing company, now part of Accenture Interactive, a group within Accenture Digital that helps the world's leading brands drive superior marketing performance across the full multichannel customer experience. Acquity Group leverages the Internet, mobile devices and social media to enhance its clients' brands and eCommerce performance. It is the digital agency of record for a number of well-known global brands in multiple industries. Acquity Group has served more than 600 companies and their global brands through twelve offices in North America. For more information about Accenture Interactive, visit accenture.com/interactive.

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