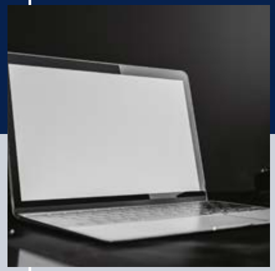
PYMNTS.com VISA

The How We Will Pay study, a PYMNTS and Visa collaboration, asks consumers to respond to a variety of questions inquiring about specific behavioral patterns, buying habits and shopping preferences related to connected commerce. The study outlines a clear picture of five distinct user personas based on age, purchasing preferences and connectivity levels, providing an in-depth analysis of each group's online shopping habits. Detailed analyses of these five personas, which range from the super-connected, who own the most connected devices, to the smartphone-centric, who rely only on their mobile phones, are listed in full in the report. The study was conducted among a panel of approximately 5,050 users aged 18 or older within the United States. In the 2019 edition, we build upon the findings from our 2018 analysis, mapping the evolution of connected consumer spending habits.

HOW WE WILL PAY

2019 EDITION





VISA | PYMNTS.com

REIMAGINING COMMERCE

IN THE AGE OF THE CONNECTED CONSUMER

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HOW WE WILL PAY

The How We Will Pay Study was done in collaboration with Visa, and PYMNTS is grateful for the company's support and insight. PYMNTS.com retains full editorial control over the following findings, methodology and data analysis.

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INTRODUCTION

Before there was cash or coins as an exchange of value, there was barter.

Trading partners would assess their options based on what was needed, who had those goods or services and what they could offer in return. Negotiating terms required multiple conversations among those partners — until, finally, everyone was satisfied.

The human voice played an important part in getting those deals done.

Fast forward to modern times, and the exchange of value has come a long way from the days of, "I'll trade you my chicken for your bushel of corn." Payment methods and options have become more sophisticated, and the ways consumers pay for what they have decided to purchase are now fast, easy, secure and available across all the channels through which they shop.

Where and how consumers make those purchases have evolved, too — from walking into a store to shopping online on computers in the family room at home to using smartphones, tablets and wearables that make purchasing a simple swipe, click or tap away, anywhere and at any time.

Yet, voice remains an important enabler to all of these purchasing experiences.

Consumers interact with sales associates in the store, confirm details at the checkout and ask for assistance as part of the sales process — regardless of whether they are paying with plastic cards or apps on their mobile phones.

Consumers now ask Alexa or Google in their connected cars to order ahead — or while in their kitchens to add groceries to their shopping lists for delivery or pickup at the store.

Today, nearly one-third of all U.S. consumers — all consumers — own a voice-activated device, just four short years after such devices hit the market.

With that increase in ownership of voice-activated devices — and familiarity with how to use them — has come greater usage of voice as an enabler of commerce. Nearly one in 10 consumers (9.6 percent) use voice-activated devices to make a purchase. As a point of comparison, it took Starbucks, the most popular and most used mobile payments app in the U.S., six years to achieve the same level of usage.[1]

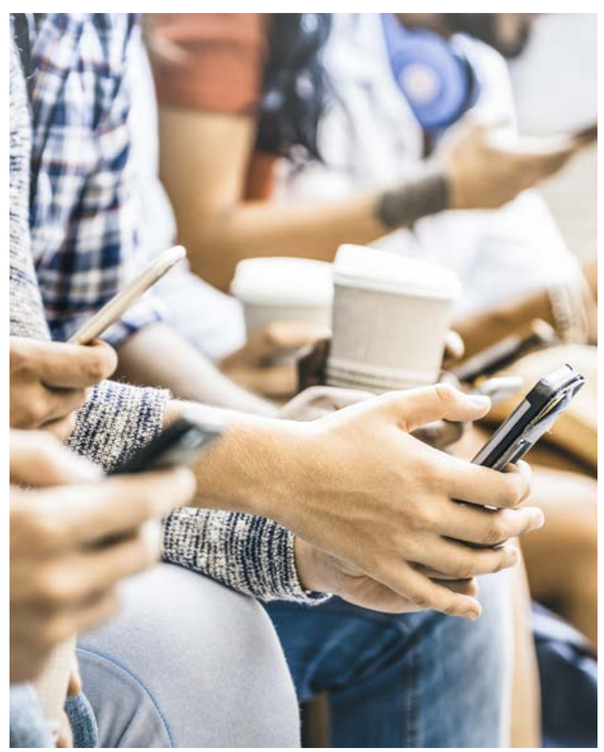
Voice, it seems, is now connected commerce's "killer app."

This is one of the more important insights from the third annual How We Will Pay study, done in collaboration with Visa.

[1] Molla, R. Starbuck's mobile payments system is so popular is the U.S., it has more users than Apple's or Google's. Vox. 2019. https://www.vox.com/2018/5/22/17377234/starbucks-mobile-payments-users-apple-pay-google. Accessed September 2019.

This year, as in all prior years, PYMNTS studied about 5,000 U.S. consumers drawn from a national sample who are statistically representative of the population at large. Each year, we ask those consumers to keep a seven-day diary to better understand what they purchased during that period, where they were when they made those purchases, how they paid for them and which devices they used. We also ask consumers which apps and use cases they used during that period or what might improve their everyday purchasing experiences.

What we found this year tells the tale of consumers for whom connected devices — and the commerce they enable — are now a very integral part of both how they pay and how they live their lives.



Here are the FIVE big things we learned:

1

Shopping is now integrated into most everyday activities for the majority of consumers.

Connected devices give consumers the freedom to shop anytime, anywhere — and now while doing anything. Convenience and saving time drive those behaviors, giving consumers the opportunity to "multitask commerce" as part of their everyday lives.

The respondents in our study report doing roughly 12.3 activities, on average, during the course of the day — everything from eating breakfast to commuting to work to exercising to cooking to taking care of the kids — with one-third of them making purchases while engaging in these activities, and many doing so while using connected devices such as smartphones, tablets, computers, wearables or voice-activated devices, to cite a few examples.

One in five consumers in our study made purchases using connected devices while watching TV, reading for pleasure, engaging in recreational activities, commuting to work or even while at the office. In fact, across our group of respondents, more than three-quarters of consumers (76 percent) made purchases during at least one of their everyday activities, every day.

Most interesting is the very long tail of activities that defines the connected consumer's daily journey. We found that no one follows the same path, though there are some common threads: making purchases while paying bills (39 percent), eating lunch (34 percent), eating dinner (27 percent) and browsing the internet (33 percent). Connected commerce creates an environment of serendipity for consumers — shoppable moments whatever the device, whatever the time and whatever a consumer happens to be doing — and saleable moments for merchants.

Connected devices have turned the home into consumers' commerce command center.

2

Devices that connect to the internet give consumers more options to do things at home that they once could do only while away from it. Perhaps the best examples are the streaming services such as Netflix, Hulu and Amazon Prime, which make it possible for consumers to enjoy movies or live sporting events without going to theaters or sports arenas to watch them.

Connected devices also make "going shopping" at a store something that consumers can choose to do but don't have to in order to buy things.

Connected devices not only give consumers more opportunities to make purchases during the course of their day-to-day activities, but also give consumers more options to do so while at home. Of the list of 15 daily activities we have studied since last year that could be performed at home, more than half of them were performed at home and also involved making purchases at home more often than what we observed in 2018. Making a purchase while watching TV has increased 19 percent (from 12.2 percent to 14.5 percent) and doing so while eating dinner has increased 4.9 percent (from 14.4 percent to 15.1 percent) between 2018 and 2019.

That's not to say that consumers don't go to physical stores. In fact, this year we also saw a slight uptick in the number of consumers in our study who reported going to physical establishments to shop or to eat a meal. Visits to grocery stores were up by 13 percent over last year — which reflects both an increase in visits to grocery stores to browse products in-store as well as to pick up groceries that were ordered ahead.

3

Consumers are on a **device and app purge** — buying and using those that save time, money and friction.

Consumers are starting to shift from a "buy and try anything" to "less is more" behavior in terms of the ownership of connected devices and the apps they use to buy things.

This year, we observed that the consumers in our study own about the same number of connected devices as they did last year — 4.9 in 2019 versus 4.4 in 2018. Yet, the mix of those devices is now different, with more consumers owning and using devices that connect to a diverse commerce-related ecosystem than those that do not.

Across our sample, smartphone ownership is up — 90 percent in 2019 versus 84 percent in 2018 — as is the ownership of voice-enabled devices and technologies such as Alexa and Google Home — 31 percent this year versus 27 percent last year.

At the same time, ownership of fitness trackers and eReaders is down, from 25 percent to 21 percent and from 26 percent to 23 percent, respectively, this year over last. Ownership of smartwatches stayed roughly the same at 18 percent.

Consumers in our study also appear to be more selective about the apps that they use with those devices to enable new connected commerce use cases.

The explosion of connected devices and connected device ownership over the past several years has been accompanied by a massive growth in apps intended to streamline the payment experiences of connected consumers — whether using mobile apps to pay at the pump, find places to park or pay at the table in restaurants.

Last year, we saw a healthy appetite for using and wanting to use those apps across all of the consumers we studied.

This year, consumers appear to show signs of fatigue, particularly with apps that enable pay at the pump (down from 49 percent to 47 percent), finding a parking spot (down from 40 percent to 37 percent), automatically paying at restaurants (down from 39 percent to 37 percent) and purchasing an item by taking a picture (down from 37 to 34 percent).

Although these declines are modest — roughly 5 percent on average — this is the first year in which we have observed a dip in the interest levels in these apps and use cases.

That said, consumers' interest is up for apps that save them time and money as well as anticipate and avoid the hassle factor. For instance, consumers' interest in apps that alert them to car problems is up from 29 percent in 2018 to 31 percent in 2019. The use of apps that help consumers manage money is also down from 40 percent to 39 percent. Inconsistent experiences, availability and lack of demonstrable value appear to be the reasons for this newly observed lack of enthusiasm.

What drives consumers' interest in connected purchasing experiences is saving time and money. In fact, of the 73 percent of consumers who express an interest in new connected purchasing experiences, saving money (85 percent) and time (84 percent) are the main reasons for their interest.

It's also why consumers' interest in contactless payments is up 5.4 percentage points from 2018, from 25.9 percent of consumers to 31.3 percent of all consumers. Of those with an interest in using contactless cards, the reasons are an interest in a faster (69 percent), more secure (43 percent) and convenient (69 percent) payment experience.

Data privacy and security remain concerns for those who are interested in these new commerce experiences as well as those who are not.

4

Voice is connected commerce's killer app. **Voice plus visual** is a connected commerce game-changer.

As we did last year, we continue to see a strong upward trend in both the ownership and use of voice-activated technologies by consumers to make purchases. Ownership of voice-activated devices by U.S. consumers has more than doubled over the past three years.

Today, more than three in every 10 consumers own voice assistants, compared to 1.4 in 10 in 2017.[2] Not only do more consumers own these devices — they also use them more often to make purchases. In fact, 9.6 percent of consumers say they use voice speakers to buy things in 2019, compared to 7.7 percent in 2018 — a 25 percent increase in purchases made via voice speakers.

At the same time, a greater share of consumers who own voice-enabled devices are using them to make purchases. Last year, 27 percent of U.S. consumers owned voice-activated devices, and 28 percent of those consumers used them to make purchases. This year, 31 percent of consumers own voice-enabled devices, and 31 percent of those consumers use them to buy things.

Voice makes purchasing hands-free and enables the multitasking commerce experiences that consumers seem more engaged with this year.

For instance, the number of consumers with voice-activated technologies and who used them to make purchases while cleaning the house increased 117 percent between 2018 and 2019 (from 1.2 to 2.6 percent). Those who did so while taking care of someone showed an increase of 55.5 percent (from 0.9 percent to 1.4 percent), while those who used them to make purchases while cooking saw an increase of 43.7 percent (from 1.6 percent to 2.3 percent).

Consumers have also taken voice omnichannel, using it across different devices. It is not just voice speakers placed in consumers' kitchens that are being used to make connected purchases. It is also common for consumers to make purchases using their smartphones' voice capabilities. In fact, just 2.2 percent of respondents say they use only their voice-activated speakers — and not their smartphones — to make voice-enabled purchases, while 4.3 percent use both. Another 3.1 percent of respondents make voice-enabled purchases exclusively via smartphone.

Even more interesting is the number of consumers in our study who say that they would use voice assistants more if they could see — and confirm — what they are buying. Sending images of what consumers ask voice assistants to buy to their smartphones or to voice-activated devices with displays increases the opportunities for merchants to convert voice commands into sales. In fact, consumers who own voice assistants are 11 percent more likely to make purchases using voice assistants when they can see an image pushed to their smartphones or to voice-activated speakers with screens.

Thirty percent of all consumers also say they would be interested in connected commerce solutions that would allow voice assistants to send links to phones to show items for which they had been searching via voice-recognition technology. Thirty-two percent would be interested in solutions through which voice assistants would send them links to new items that might be related to the ones for which they had been searching, as well.

[2] How We Will Pay. PYMNTS.com. 2017. https://www.pymnts.com/news/merchant-innovation/2017/how-we-will-pay-connectivity-process-progress/. Accessed September 2019.

5

Bridge millennials have integrated connected purchasing experiences into their everyday lives more than any other consumer group.

In the first year of our study, we identified four connected consumer personas based on the number of devices they own and how they use them — and have been tracking their behaviors each year since. This year, however, we found some interesting differences in the two groups who own more devices that the average consumer: the super-connected consumers and the bridge millennials.

The average super-connected consumer in our study is 42 years old and owns the greatest number of connected devices on average: 7.7 devices compared to 4.9 for the average consumer. Forty percent have a college degree, and more than half (51 percent) earn more than $100,000 per year. Fifty-eight percent of super-connected consumers use their connected devices to make purchases.

The average bridge millennial in our study is 36 years old and owns more connected devices than the average U.S. consumer, too: six of them. As the name implies, this persona “bridges” two generations — the millennials and the Generation X-ers — and is the first generation of connected consumer with spending power. According to our calculations based on data published by the Bureau of Labor Statistics, bridge millennials spend on average $10,435 more each year than millennials (who spend $56,646), and $10,859 less than their Gen X elders (who spend $73,681). Over 40 percent of them earn more than $100,000 annually, and more than 42.9 percent have a college education.[3] Fifty-nine percent of bridge millennials use connected devices to make those purchases.

Although both the super-connected and bridge millennial consumers show nearly equal enthusiasm for connected devices and their use of them to make purchases, the six-year age gap between these two groups shows some sharp contrasts in how integrated these devices — and therefore the commerce experiences they enable — are into their everyday lives.

The super-connected are connected commerce enthusiasts, but as the early adopters of devices and use cases, they appear much more driven by the thrill of the experience and are more forgiving of any inconsistencies with it. For example, they are much more interested than the average consumer in automatically paying at the pump (61 percent to 47 percent, respectively), auto purchases of clothes (53 percent to 39 percent) and apps to keep track of spending (52 percent to 39 percent).

Meanwhile, bridge millennials engage in 14.1 activities each day and report making purchases while engaging in 6.4 of them. In other words, 45 percent of the activities that bridge millennials do on a day-to-day basis involve making a purchase, and using fewer connected devices to do so.

The bridge millennials in our study are also early adopters of voice-assisted technologies. More than one in three (38 percent) bridge millennials own and use voice-activated devices, and 17 percent use them to make purchases.

The average super-connected consumer engages in 12.5 activities each day and makes purchases during 4.8 of these activities. In other words, 39 percent of their day-to-day activities involve making a purchase, even though they own more devices. Super-connected consumers are also voice technology enthusiasts. Sixty-two percent own voice-activated devices, and 13 percent use voice-activated devices to make purchases.

There are also some interesting differences in how each of these personas uses apps. Overall, bridge millennials have a very high interest in connected commerce experiences and are interested in many more of them. Forty-five percent of bridge millennials say they would like for voice assistants to send them messages with links to items they might like to purchase, with the same share saying that they would like to have voice assistants send them links to items they searched for via voice-recognition technology.

This group, in particular, seems an interesting bellwether for how devices and connected commerce use cases may evolve over time.

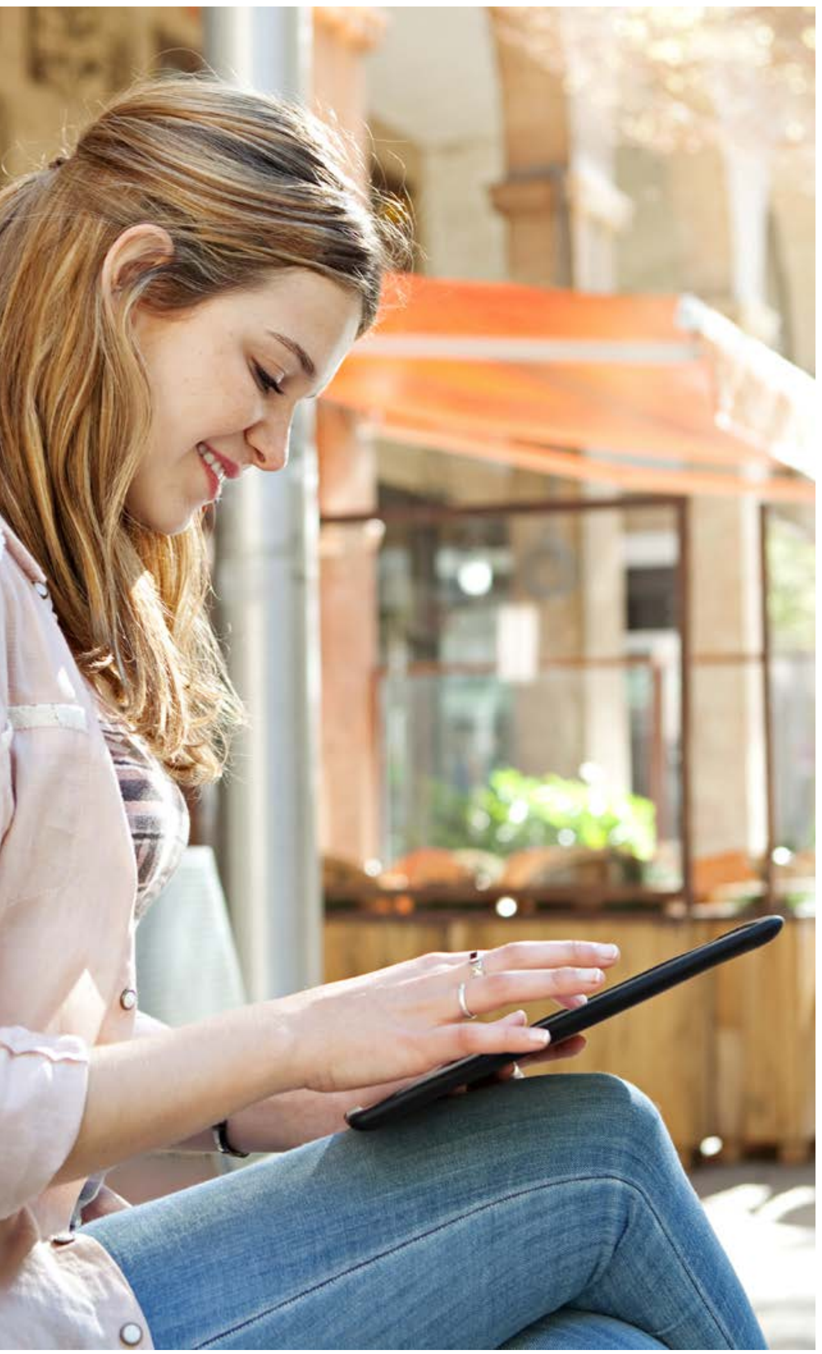
This, our third year of this study, clearly shows the impact of connected devices on the purchasing experiences that U.S. consumers find most valuable, and the shifts in thinking about which devices and use cases clear their own personal value bars.

How we do – and will — pay is solidly on the consumer’s terms and now much more than paying for something they wish to buy.

[3] Consumer expenditure surveys. Bureau of Labor Statistics, The United States Department of Labor. 2019. https://www.bls.gov/cex/tables.htm#annual. Accessed September 2019.

REIMAGINING COMMERCE IN THE AGE OF THE CONNECTED CONSUMER

CONSUMERS DON'T HAVE TO 'GO SHOPPING' TO BUY THINGS ANYMORE



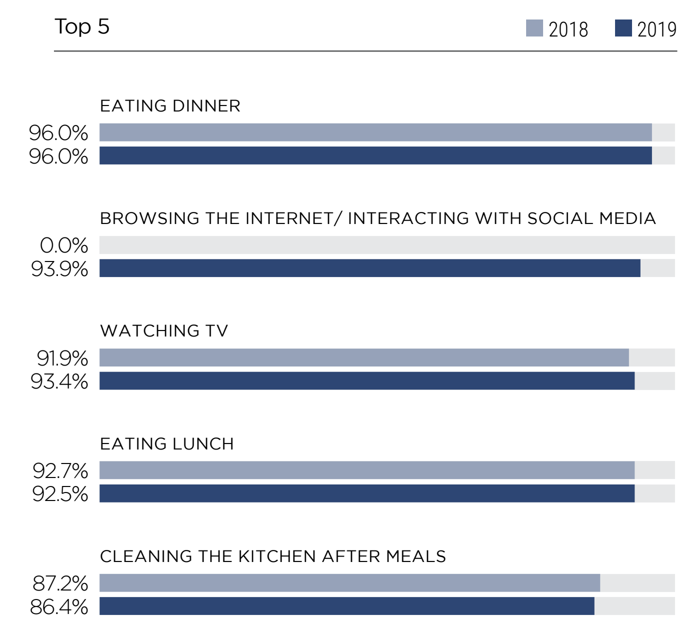
It's long been the case that devices like smartphones, tablets and wearables give consumers the freedom to shop and buy on the go. The story this year is how connected devices bring the shopping experience to consumers anytime, anywhere and now while doing anything.

Once upon a time, consumers had to set aside time to "go shopping" to make purchases, first at brick-and-mortar stores and then, with the dawn of the internet, at a fixed location with an internet connection to browse online and buy.

Now, connected devices such as smartphones, smart televisions, tablets, smart watches and voice-enabled assistants bring the shopping experience to the consumer anywhere, anytime — and while doing anything.

FIGURE 1:

A day in the life of the U.S. consumer in 2019
Share of respondents who participated in select activities in 2019 versus 2018

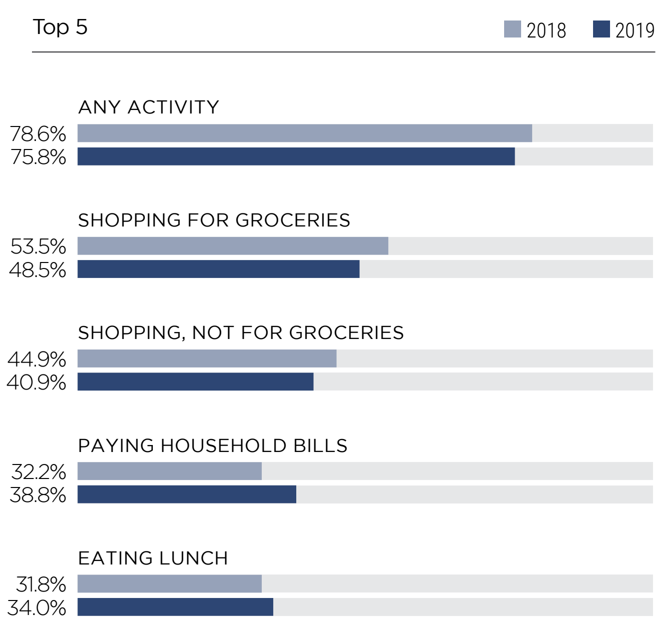


Activity (rest of sample)	2018	2019
Preparing meals	85.7%	**84.9%**
Eating breakfast	81.4%	**80.0%**
Cleaning the house	74.7%	**74.5%**
Shopping for groceries	64.0%	**71.1%**
Reading for pleasure	67.3%	**66.1%**
Completing recreational activities	64.7%	**67.4%**
Paying household bills	56.2%	**63.4%**
Shopping, not including groceries	56.0%	**62.7%**
Working at a full-time or primary job	46.3%	**48.5%**
Commuting to and from work	42.0%	**47.3%**
Taking care of someone	41.0%	**38.9%**
Traveling a long distance	29.5%	**33.9%**
Working at a part-time or side/gig economy job	23.7%	**29.9%**
Commuting using local or mass transportation	23.2%	**0.0%**

Source: PYMNTS.com

FIGURE 2:

How U.S. consumers shop in 2019
Share of respondents who made purchases while doing select activities in 2019 versus 2018



Activity (rest of sample)	2018	2019
Browsing the internet/interacting with social media	0.0%	**33.1%**
Eating dinner	25.8%	**27.2%**
Eating breakfast	24.0%	**22.7%**
Preparing meals	21.8%	**21.1%**
Watching TV	19.9%	**20.3%**
Reading for pleasure	20.2%	**19.8%**
Working at a full-time or primary job	20.9%	**19.1%**
Completing recreational activities	19.0%	**18.8%**
Commuting to and from work	19.5%	**18.6%**
Traveling a long distance	17.8%	**16.7%**
Taking care of someone	21.3%	**15.4%**
Cleaning the house	17.1%	**14.7%**
Cleaning the kitchen after meals	16.9%	**14.5%**
Working at a part-time or side/gig economy job	12.9%	**14.2%**
Commuting using local or mass transit	14.4%	**0.0%**

Source: PYMNTS.com

In fact, roughly 76 percent of respondents said they make at least one purchase while doing an activity. That's down 3 percent from 79 percent in 2018.

Specifically, 27 percent of respondents say they shop while eating dinner, and 20 percent say they shop while watching television. Many respondents also say they shop while commuting to work (19 percent do so) or even while at work (19 percent).

27%
of respondents
say they shop while eating dinner.

Consumers are also making investments in the connected devices that can bring dynamic shopping experiences to them — anywhere and at any time.

When we asked consumers how many of the most common 16 connected devices they own, we discovered that they still own roughly as many as they did last year, at 4.9 devices in 2019 versus 4.4 devices in 2018. What we discovered, however, is that the mix of the devices they own is very different.

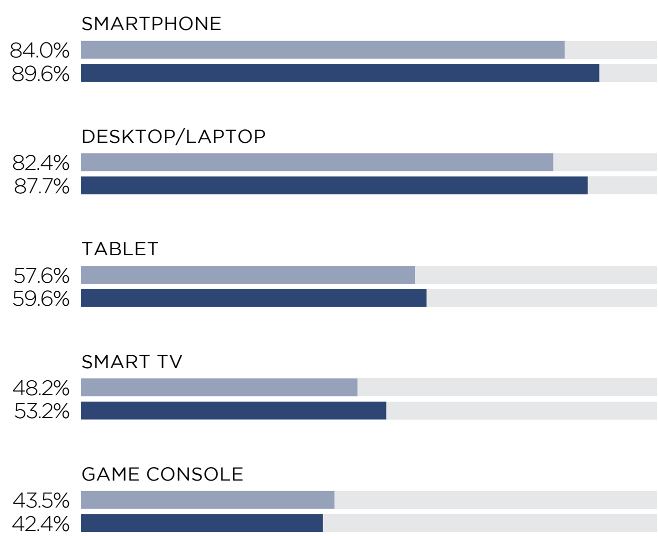
Ownership of devices that provide access to broad digital ecosystems, like smartphones, desktops, laptop computers and voice assistants, has proliferated. At the same time, the ownership of connected devices that serve highly specific purposes, like activity trackers and eReaders, is waning.

FIGURE 3:

Which connected devices consumers own

A: Share of respondents who own select connected devices in 2019 versus 2018

Top 5 ■ 2018 ■ 2019

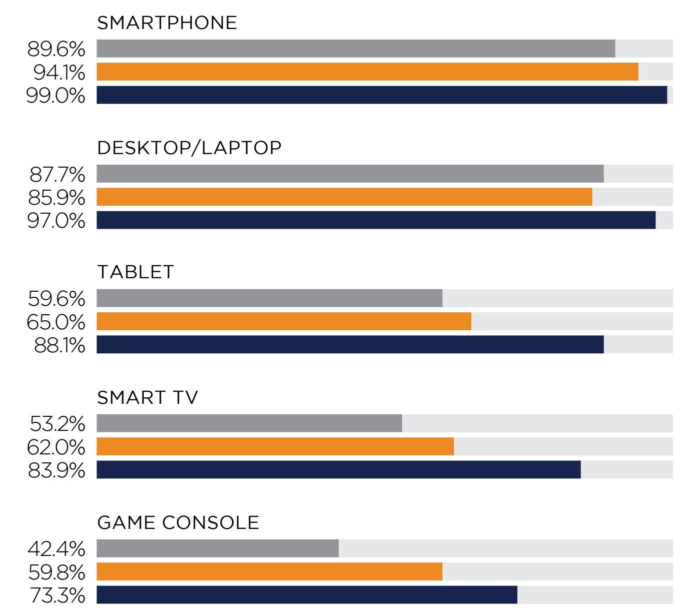


Activity (rest of sample)	2018	2019
Voice assistant	26.6%	**30.9%**
Connected car	26.9%	**29.5%**
eReader	25.6%	**22.7%**
Activity tracker	24.6%	**20.6%**
Smartwatch	18.0%	**18.6%**
Travel pass	14.9%	**16.2%**
Connected thermostat	11.3%	**10.4%**
VR headset	11.0%	**8.3%**
Wearable camera	6.2%	**5.2%**
Smart refrigerator	5.7%	**5.2%**
Smart clothing	3.9%	**2.6%**

Source: PYMNTS.com

B: Share of respondents who own select connected devices in 2019 versus 2018, by persona

Top 5 ■ Total respondents ■ Bridge millennials ■ Super-connected consumers



Activity (rest of sample)			
Voice assistant	30.9	37.6%	62.0%
Connected car	29.5%	31.9%	58.6%
eReader	22.7%	23.6%	42.8%
Activity tracker	20.6%	25.9%	46.1%
Smartwatch	18.6%	29.9%	40.8%
Travel pass	16.2%	15.6%	31.8%
Connected thermostat	10.4%	15.4%	25.0%
VR headset	8.3%	13.7%	20.0%
Wearable camera	5.2%	10.0%	13.0%
Smart refrigerator	5.2%	9.3%	12.6%
Smart clothing	2.6%	4.6%	6.0%

Source: PYMNTS.com

The share of respondents who report owning eReaders is down to **23 percent in 2019 from 26 percent in 2018.**

Ownership of smartphones increased by about 6 percentage points this year over last — to 90 percent of surveyed consumers from 84 percent in 2018. Ownership of voice assistants is also up, with now roughly one in three consumers in the U.S. owning one — to 31 percent in 2019 from 27 percent in 2018.

At the same time, the share of respondents who report owning eReaders is down to 23 percent in 2019 from 26 percent in 2018. The share of those who own activity trackers has also dropped, to 21 percent in 2019 from 25 percent in 2018.

HOME IS WHERE THE CONNECTED COMMERCE COMMAND CENTER IS

Consumers are making more deliberate decisions about the connected devices they want to own and use, and are using them to transform their homes into home bases for connected commerce.

In fact, we have seen consumers' usage of connected devices to make purchases from home increase across the board during the past year.

35%
of consumers
with ad hoc employment are working from home in 2019.

We asked respondents which of 15 different routine activities they performed at home, and which they performed at stores, restaurants, bars and other brick-and-mortar establishments. Their responses show that for seven of these activities, the share who perform them at home is higher in 2019 than in 2018.

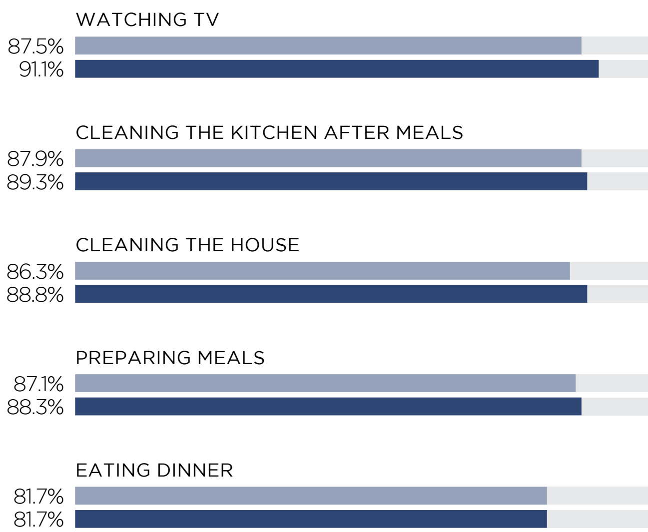
The biggest increases were with working gig jobs, watching television and paying household bills. Thirty-five percent of consumers with ad hoc employment worked from home in 2019, representing a 29 percent increase from last year. Consumers who watch television do so much more at home now than last year, as well, with the share who do so increasing 4 percentage points since 2018. Meanwhile, the share of consumers who pay their bills at home has increased from 75 percent last year to 77 percent this year.

FIGURE 4:

Daily activities in which consumers participate, by location

A: Share of respondents who perform select activities at home in 2019 versus 2018

Top 5 — 2018 / 2019

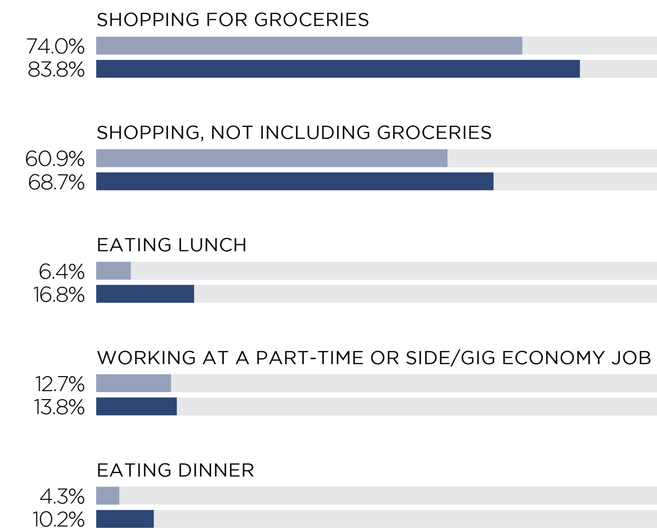


Activity (rest of sample)	2018	2019
Eating breakfast	81.0%	**79.7%**
Reading for pleasure	78.1%	**78.3%**
Paying household bills	74.5%	**77.0%**
Taking care of someone	62.6%	**62.6%**
Eating lunch	61.6%	**55.7%**
Completing recreational activities	39.7%	**36.6%**
Working at a part-time or side/gig economy job	26.9%	**34.6%**
Shopping, not including groceries	20.9%	**18.2%**
Working a full-time or primary job	17.1%	**14.1%**
Shopping for groceries	13.1%	**8.8%**

Source: PYMNTS.com

B: Share of respondents who perform select activities in stores, restaurants and bars in 2019 versus 2018

Top 5 — 2018 / 2019



Activity (rest of sample)	2018	2019
Working at a full-time or primary job	5.8%	**8.2%**
Taking care of someone	6.2%	**7.9%**
Completing recreational activities	6.7%	**6.8%**
Eating breakfast	3.6%	**6.8%**
Paying household bills	5.9%	**6.6%**
Reading for pleasure	4.9%	**5.1%**
Preparing meals	3.6%	**4.0%**
Cleaning the kitchen after meals	3.3%	**3.6%**
Cleaning the house	3.2%	**3.1%**
Watching TV	2.8%	**2.9%**

Source: PYMNTS.com

84% of consumers are shopping for groceries at brick-and-mortar locations in 2019.

What is remarkable is not so much the increase in any one of these areas, but rather the fact that so many activities are now being performed more at home than they were last year, in aggregate. A greater share of consumers this year are performing seven of 15 routine activities at home compared to those who did so last year. This speaks to the fact that many consumers are finding it more convenient to get things done from home with connected technologies rather than leaving the house, traveling to a brick-and-mortar location and performing an activity before going right back back home again.

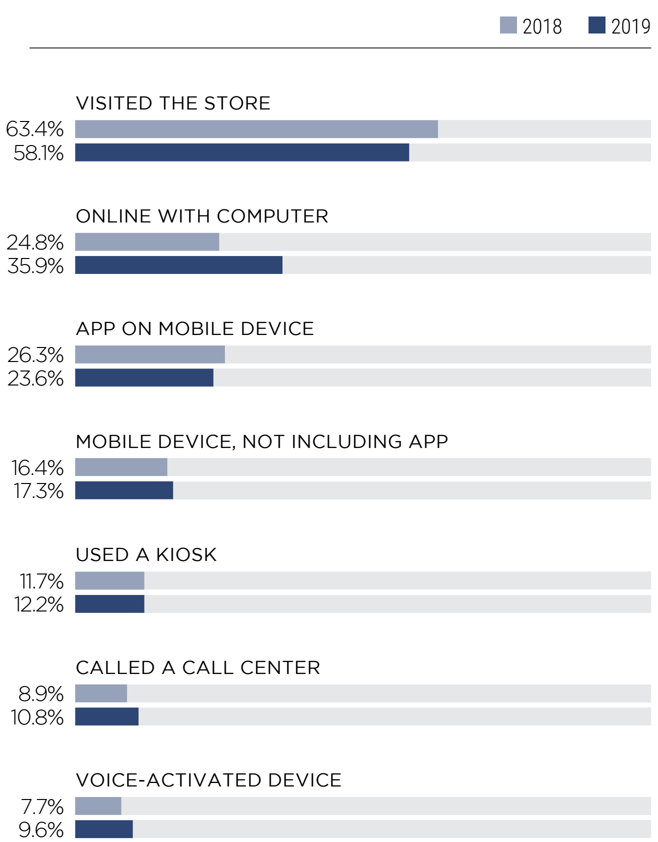
There are still certain times when consumers are more likely to shop away from home, of course, but these purchases are usually more deliberate than leisurely in nature. Grocery shopping is the best example of this. Eighty-four percent of consumers shopped for groceries at brick-and-mortar locations in 2019, representing an increase from 74 percent in 2018. This figure represents an aggregate increase between consumers shopping for groceries in-store as well as picking them up at physical locations after having remotely ordered them beforehand.

More importantly, our research shows that consumers are going to the store to buy things much less and buying things using connected devices much more than they did last year.

MORE THAN ONE-THIRD
OF CONSUMERS IN OUR STUDY
report making purchases using their computers in 2019.

FIGURE 5:

How consumers pay for retail purchases online and in-store
Share of respondents who are using select channels to buy things in 2019 versus 2018



Source: PYMNTS.com

About one-quarter of consumers in our study reported making purchases using their computers in 2018, with 24 percent using mobile apps and 7.7 percent using voice-activated devices. Then, consumers reported that purchasing in the physical store was still how most purchases were made. This year, we see a shift. At 58 percent, 8.4 percent fewer consumers report making a purchase in a physical store, while 36 percent report using their computers, 26 percent report using mobile apps and 9.6 percent report using a voice-activated device.

In other words, consumers are staying home to get things done, but it is not stopping them from making purchases. Instead, they are using their connected devices to transform their homes into connected commerce command centers, using them to get more done and make more purchases from the comfort of apartments, houses and condos rather than at stores.

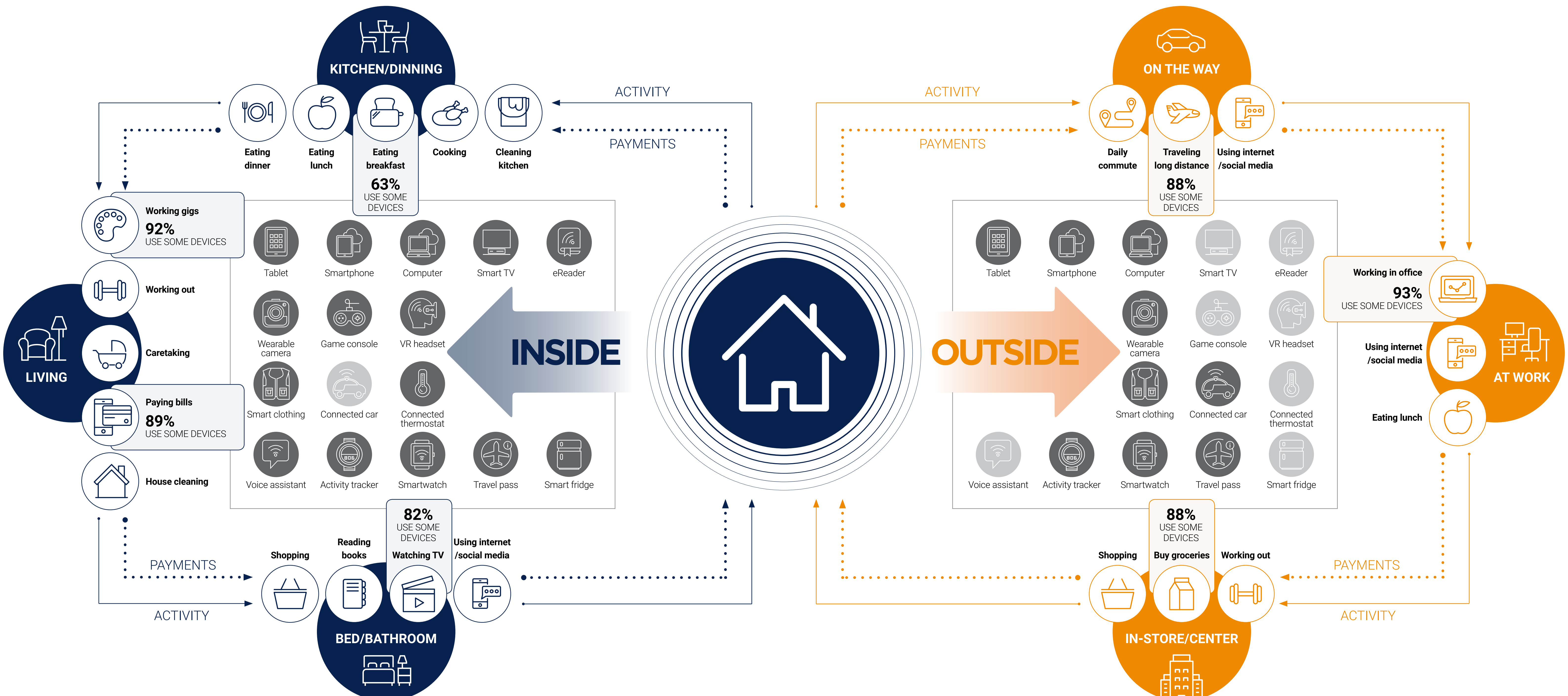
HOME
AS THE CONNECTED COMMERCE COMMAND CENTER

- **AT HOME: Device usage during meals**
  Consumers are most likely to use their connected devices to shop online while eating meals. Ten percent of all surveyed consumers shop online during dinner, and 80 percent do so during breakfast, for example. At the same time, 80 percent of consumers who eat these meals do so at home.

- **AT HOME: Device usage for leisure**
  Many consumers also use their connected devices to make purchases during leisure activities. Fourteen percent of consumers who watch television do so while browsing, shopping and paying for retail goods on their connected devices, and 91 percent of consumers say they watch television at home.

- **ON THE GO: Device usage in-store**
  Shopping for groceries is the most common activity in which consumers participate away from home. Eighty-four percent of consumers who shop for groceries do so at a physical store as opposed to ordering them online, and 14 percent of them use connected devices to pay in-store.

- **ON THE GO: Device usage in vehicles**
  Shopping via voice-enabled devices like virtual assistants and voice-activated speakers is more popular than ever. In fact, 9.5 percent of all consumers make retail purchases using voice-recognition technology.



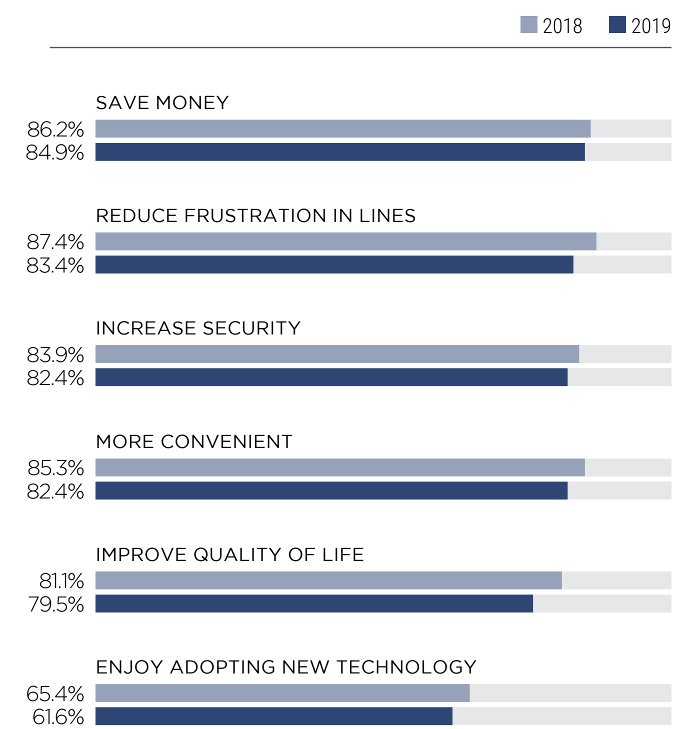
CONSUMERS ARE SHIFTING FROM A 'BUY AND TRY' CONNECTED PURCHASING MINDSET TO ONE OF 'LESS IS MORE'

To say that there has been an explosion of options and opportunities for consumers to buy connected devices and download apps that deliver innovative new commerce experiences is something of an understatement. Over the past three years, not only has the number of devices that connect to the internet expanded — so have the use cases that now offer "an app for that" with the intention of removing friction when buying things.

That's what consumers expect, too. When we asked the consumers in our study who indicated an interest in new commerce experiences why they use connected devices and apps to pay, they cited saving money, reducing the time spent in line and increasing security most of all. Eighty-five percent say they use connected devices to save money, 83 percent say they do so to reduce the frustration of standing in line (as with order-ahead apps, for instance) and 82 percent use them to enhance their data security.

FIGURE 6:

Reasons consumers express interest in new connected commerce experiences
Share of interested respondents citing select reasons for their interest in new connected commerce experiences in 2019 versus 2018



Source: PYMNTS.com

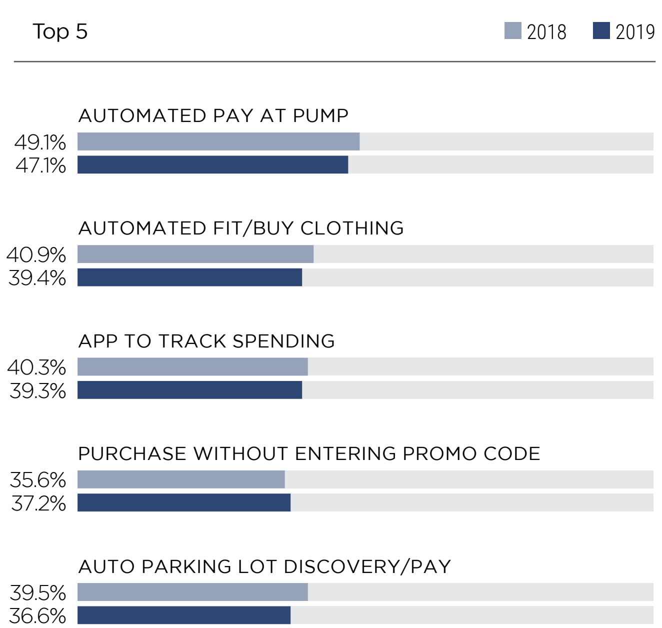
Yet, what we observed this year for the first time is a consumer that is walking the talk. There appears to be a shift away from "buying and trying" devices and apps in the spirit of experimentation and discovery to a consumer that is more selective, perhaps with a higher bar for what he or she expects from a connected purchasing experience. Although consumers in our study report making more purchases using connected devices (52 percent of consumers in 2019, up from 43 consumers in 2018), they are shedding those that don't save them time, money or the uncertainty of having a consistent purchasing experience across their shopping channels.

For example, consumer interest in making purchases without having to enter a promo code is up 4.3 percent from last year, as is receiving automated car trouble alerts.

FIGURE 7:

Consumers' interest in new connected commerce experiences

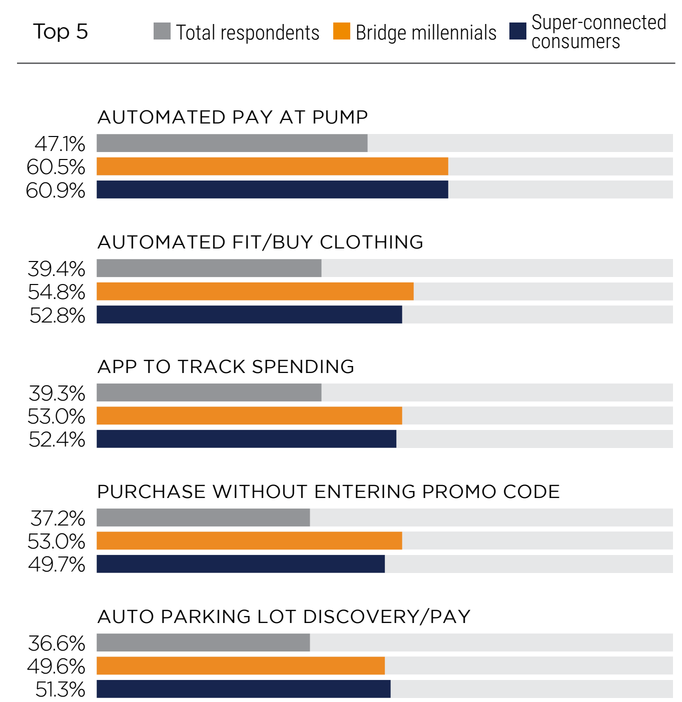
A: Share of respondents who were "very" or "extremely" interested in select new types of commerce in 2019 versus 2018



Activity (rest of sample)	2018	2019
Auto pay at restaurant	39.4%	**37.0%**
Auto home trouble alert/pay for repairs	38.7%	**35.9%**
Auto pay at store	34.0%	**33.1%**
Purchase item by taking a picture	36.8%	**33.8%**
Buy commuting tickets walking on and off a station	33.0%	**31.8%**
Window shop/auto buy and pay	32.5%	**30.7%**
Auto car trouble alert/pay for repairs	29.2%	**30.7**
Buy outfit seen on TV	27.2%	**26.3%**
Auto fridge/pantry grocery orders	31.1%	**27.9%**
Personal car assistant initiates order-ahead	27.5%	**26.7%**
Voice assistant sends item to device to enable purchase	0.0%	**30.4%**
Voice assistant sends email/text with related items	0.0%	**31.6%**

Source: PYMNTS.com

B: Share of respondents who were "very" or "extremely" interested in select new types of commerce, by persona



Activity (rest of sample)			
Auto pay at restaurant	37.0%	54.0%	49.1%
Auto home trouble alert/pay for repairs	35.9%	49.9%	49.4%
Auto pay at store	33.1%	47.1%	44.4%
Purchase item by taking a picture	33.8%	49.9%	45.4%
Buy commuting tickets walking on and off a station	31.8%	45.5%	42.7%
Window shop/auto buy and pay	30.7%	47.3%	40.6%
Auto car trouble alert/pay for repairs	30.7%	43.3%	40.8%
Buy outfit seen on TV	26.3%	42.2%	36.7%
Auto fridge/pantry grocery orders	27.9%	43.3%	35.9%
Personal car assistant initiates order-ahead	26.7%	42.0%	39.1%
Voice assistant sends item to device to enable purchase	30.4%	44.6%	43.4%
Voice assistant sends email/text with related items	31.6%	45.4%	43.1%

Source: PYMNTS.com

On the flip side, the consumers we studied seem to show some "app fatigue" with respect to use cases and apps that were once of greater interest. Though these declines appear modest, this is the first time we've observed a dip in interest in use cases for which there has been a lot of investment by innovators to "fix" a broken purchasing experience.

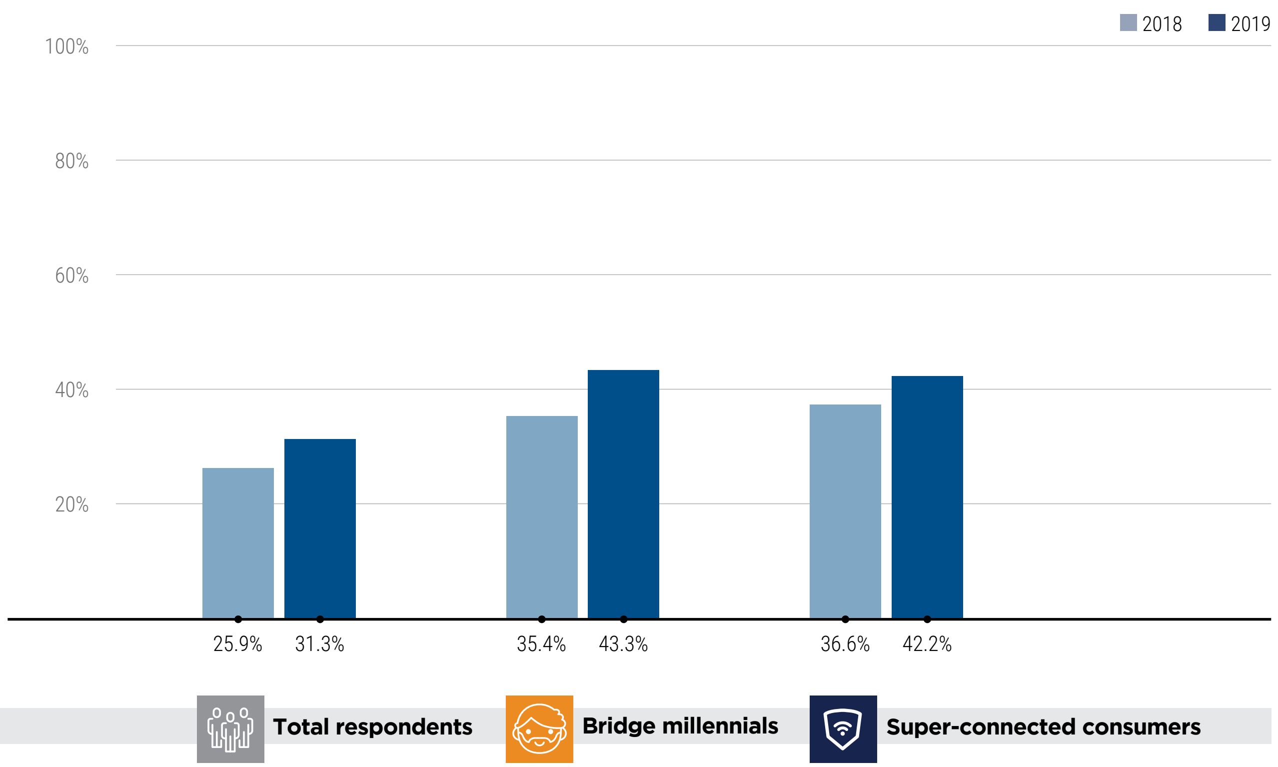
The share of consumers interested in auto pay at the pump is down from 49 percent in 2018 to 47 percent in 2019, for example, and the share interested in auto parking spot discovery is down from 40 percent to 37 percent. The portion of consumers expressing interest in auto pay at the restaurant is also down to 37 percent, falling from 39 percent last year. This lack of interest is also reported by those who own more connected devices than the average consumer — the super-connected and bridge millennial consumers, who own 7.7 and 6 devices, respectively, on average. These two groups in particular also show a dip in interest in auto parking spot discovery, from 52 percent to 50 percent for bridge millennials and from 56 percent to 51 percent for super-connected. Super-connected consumers additionally showed a dip in interest for auto pay at pump, from 65 percent to 61 percent.

One explanation for this drop in interest is a lack of ubiquity and consistency of the purchasing experience. As with any other payment innovations, adoption and usage are based on consumers knowing that this new way to pay is available everywhere they shop, knowing that using it will save them time or money and knowing that the experience is consistent across channels.

It helps to explain the spike in interest we observed this year with respect to contactless payments at the physical point of sale. Regarding the consumers we studied, interest in using contactless payments is up among all persona groups. Overall, interest in contactless payments is up 5.4 percent since last year.

FIGURE 8:

Consumer interest in contactless payment solutions
Share of consumers interested in contactless payments solutions in 2019 versus 2018



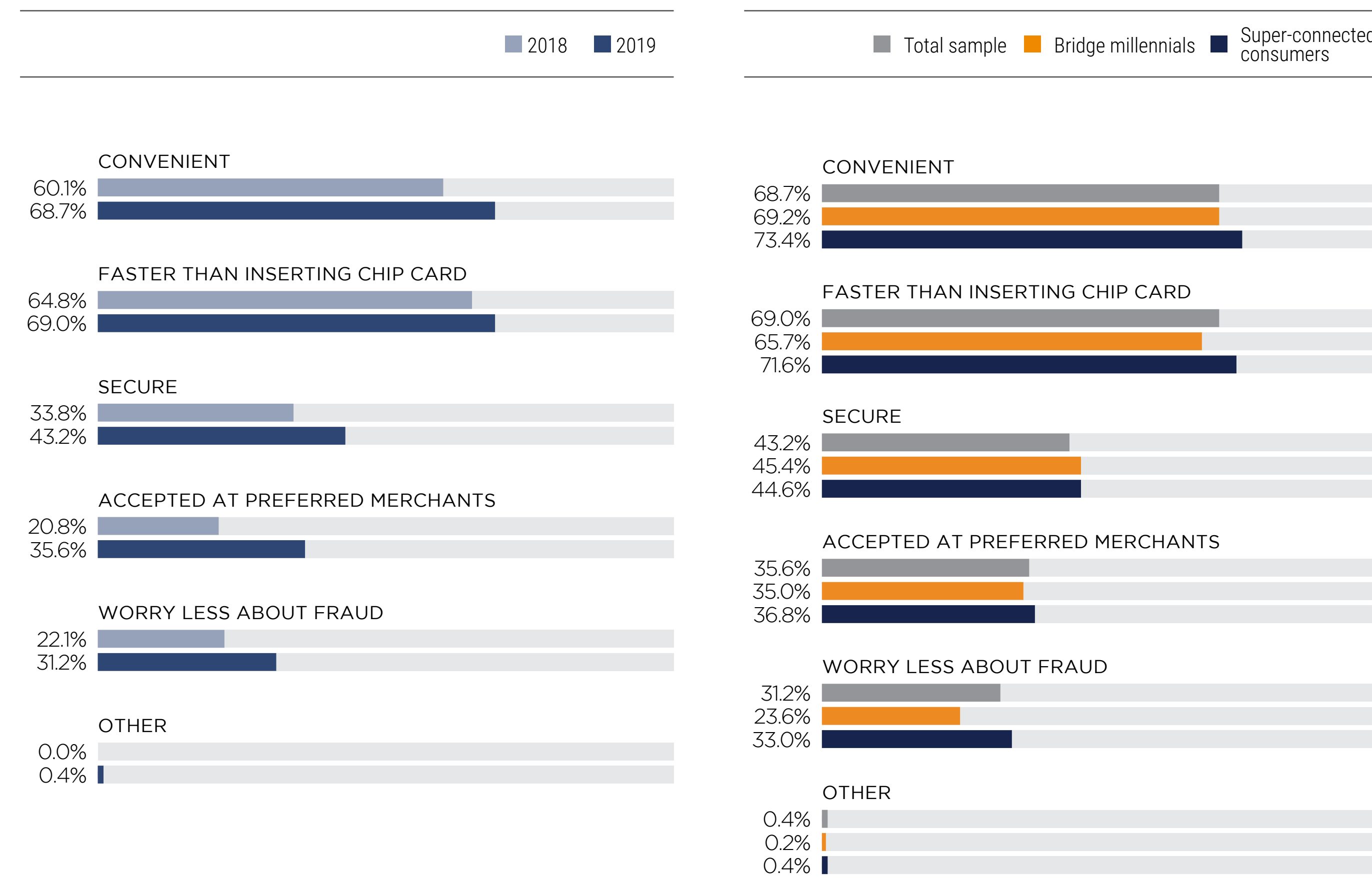
Source: PYMNTS.com

FIGURE 9:

Why consumers are interested in using contactless cards

A: Share of interested respondents citing select reasons for their interest in 2019 versus 2018

B: Share of interested respondents citing select reasons for their interest in 2019, by persona



Source: PYMNTS.com

CONVENIENCE, SPEED AND SECURITY ARE THE TOP REASONS FOR CONSUMERS' SPIKE IN INTEREST IN USING CONTACTLESS PAYMENTS.

Convenience, speed and security are the reasons for this spike in interest, with 69 percent, 69 percent and 43 percent, respectively, of consumers expressing an interest in contactless solutions citing those as the top reasons.

VOICE PLUS VISUAL IS THE CONNECTED COMMERCE GAME-CHANGER

Voice is the killer app of the connected commerce experience. For the third, consecutive year, the use of voice-enabled devices and assistants to enable purchasing has increased faster than that for any other type of connected commerce.

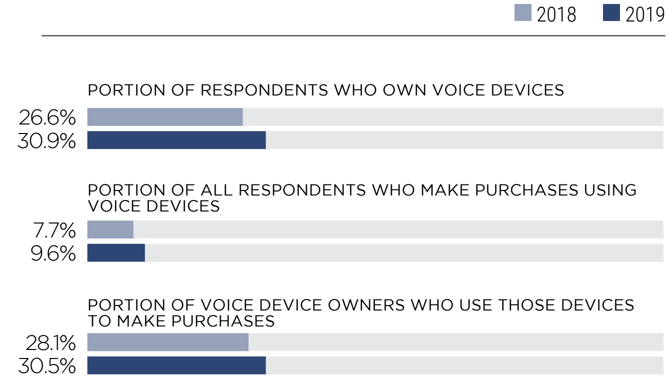
Ownership of voice-enabled devices, particularly voice assistants, has more than doubled in the past three years. Our survey shows that about one in every three consumers (31 percent) now own voice-activated devices, up from 27 percent in 2018 and just 14 percent in 2017.[4] By comparison, ownership of smart televisions has increased just 5 percentage points and ownership of connected cars has increased just 3 percentage points since 2018.

Not only is the ownership of voice-activated devices and use of voice assistants increasing, but consumers' appetite for voice-enabled shopping experiences is also growing.

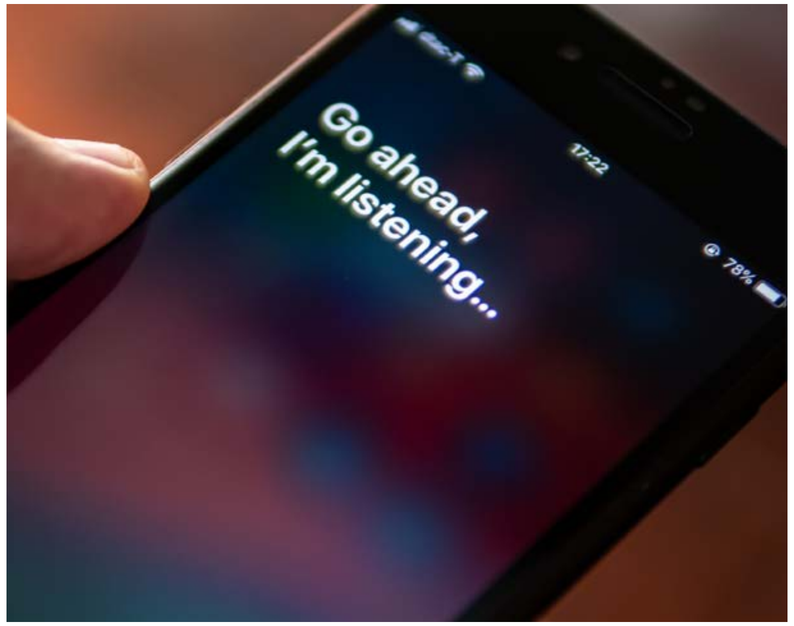
Nearly 10 percent (9.6 percent) of consumers now use voice-activated devices to make purchases, up from 7.7 percent in 2018. A greater share of consumers who own voice-enabled devices are also using them to make purchases. Last year, 27 percent of U.S. consumers owned voice-activated devices, and 28 percent of those consumers used them to make purchases. This year, 31 percent of consumers own voice-enabled devices, and 31 percent of those consumers used them to buy things.

FIGURE 10:

Consumers' usage of voice-enabled devices to make purchases
Share of respondents who use voice-enabled devices to make purchases in 2019 versus 2018



Source: PYMNTS.com



9.6%

of consumers
now use voice-activated devices to make purchases.

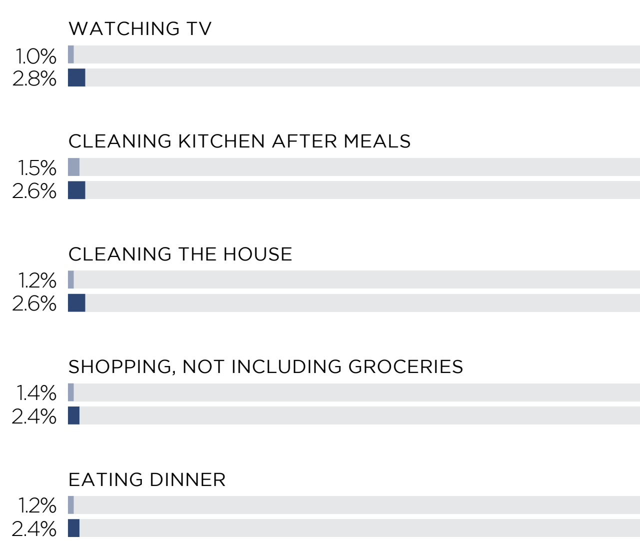
[4] How We Will Pay. PYMNTS.com. 2017. https://www.pymnts.com/news/merchant-innovation/2017/how-we-will-pay-connectivity-process-progress/. Accessed September 2019.

FIGURE 11:

How consumers use voice-enabled devices to make purchases

A: Share of respondents who use voice recognition technology to make purchases during select activities

Top 5

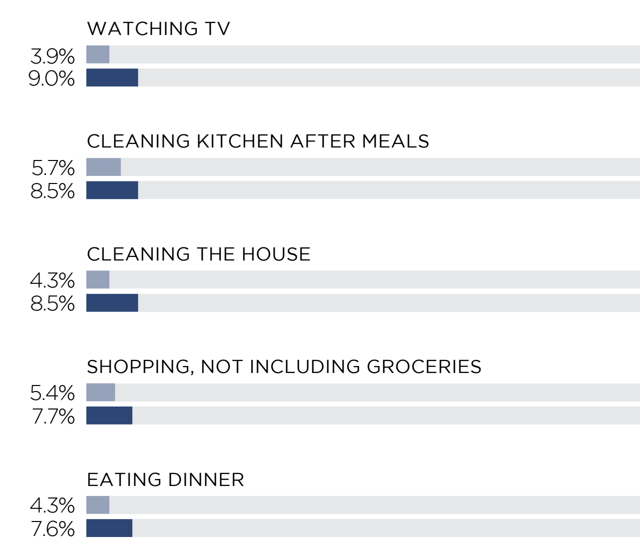


Activity (rest of sample)	2018	2019
Shopping for groceries	1.0%	**2.3%**
Preparing meals	1.6%	**2.3%**
Paying household bills	1.0%	**2.1%**
Traveling a long distance	1.1%	**2.1%**
Browsing the internet/interacting with social media	0.0%	**2.1%**
Completing recreational activities	1.3%	**1.8%**
Working at a full-time or primary job	0.8%	**1.8%**
Reading for pleasure	1.2%	**1.7%**
Commuting to and from work	0.8%	**1.7%**
Eating lunch	1.0%	**1.6%**
Working at a part-time or side/gig economy job	0.7%	**1.6%**
Taking care of someone	0.9%	**1.4%**
Eating breakfast	0.7%	**1.1%**
Commuting using local or mass transportation	1.0%	**0.0%**

Source: PYMNTS.com

B: Share of voice assistant owners who use voice recognition technology to make purchases during select activities

Top 5



Activity (rest of sample)	2018	2019
Shopping for groceries	3.9%	**7.5%**
Preparing meals	6.0%	**7.4%**
Paying household bills	3.9%	**6.8%**
Traveling a long distance	4.1%	**6.7%**
Browsing the internet/interacting with social media	0.0%	**6.7%**
Completing recreational activities	4.9%	**5.9%**
Working at a full-time or primary job	3.1%	**5.9%**
Reading for pleasure	4.5%	**5.6%**
Commuting to and from work	3.1%	**5.5%**
Eating lunch	3.7%	**5.3%**
Working at a part-time or side/gig economy job	2.7%	**5.0%**
Taking care of someone	3.4%	**4.7%**
Eating breakfast	2.4%	**3.7%**
Commuting using local or mass transportation	3.8%	**0.0%**

Source: PYMNTS.com

4.3% of consumers use both voice-enabled smartphones and voice speakers to buy things.

Voice also appears to be a purchasing enabler that is not limited to a single device or use case.

Almost three times as many consumers are using voice-activated devices to buy things while watching television than did those who did so in 2018. Those who own and use them are using voice assistants to buy while eating dinner (2.4 percent), cleaning the house (2.6 percent) and paying household bills (2.1 percent). In fact, there is not a single use case in which consumers are using voice-enabled devices less often than they did last year.

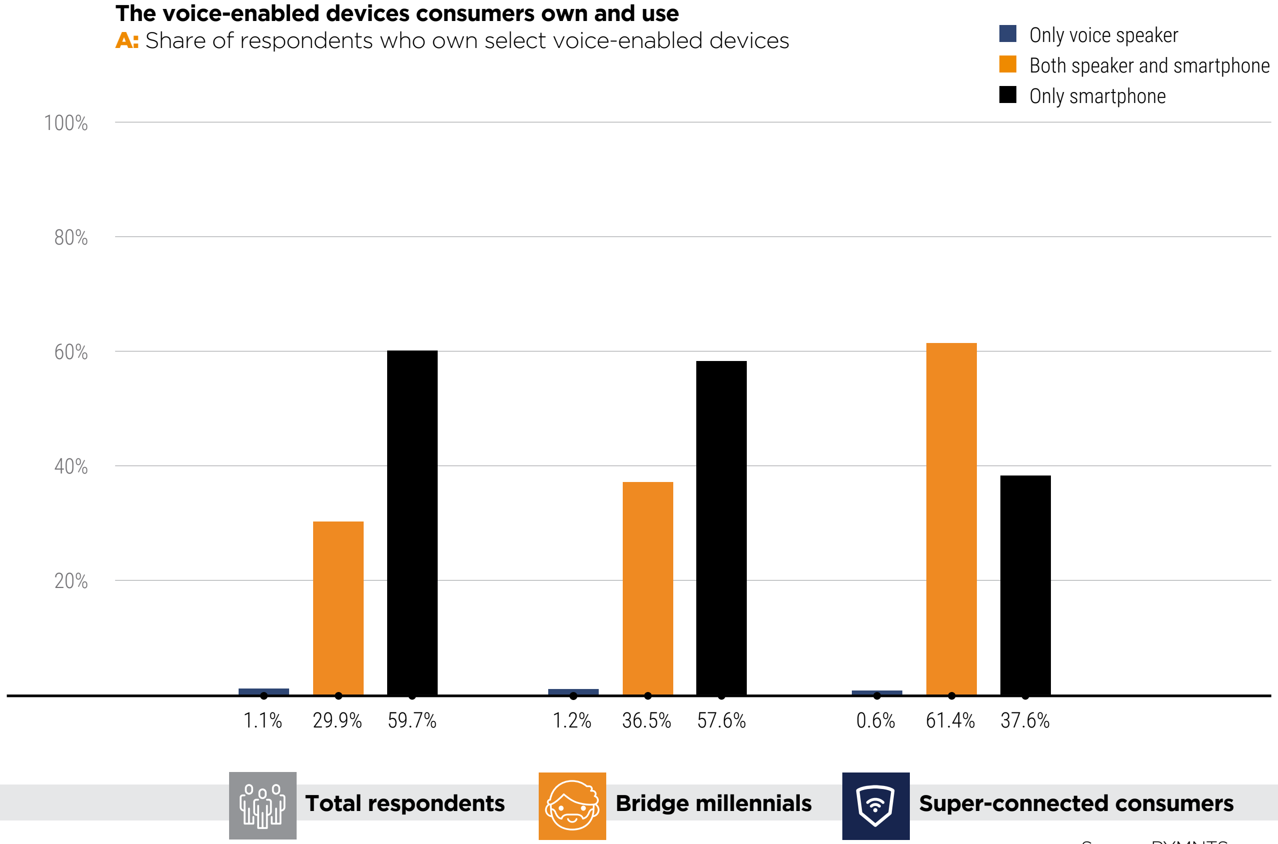
Consumers seem to move between making voice-enabled purchases on their smartphones as well as with their voice speakers.

Our study shows that 4.3 percent of consumers use both types of voice-enabled devices to buy things. This is more than the share who use just one or the other: 3.1 percent of consumers make purchases only with their smartphones, and 2.2 percent make purchases only with their voice-activated speakers.

FIGURE 12:

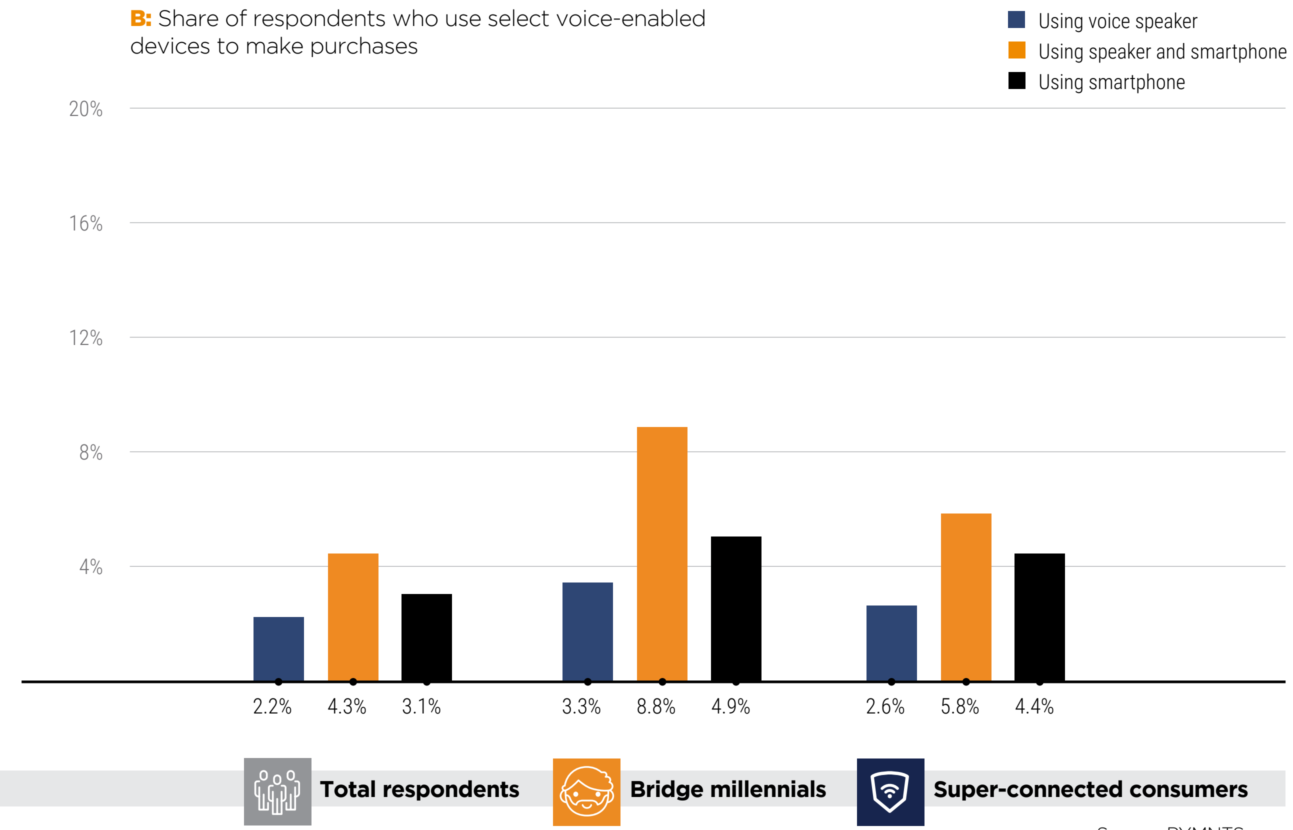
The voice-enabled devices consumers own and use

A: Share of respondents who own select voice-enabled devices



Source: PYMNTS.com

B: Share of respondents who use select voice-enabled devices to make purchases



Source: PYMNTS.com

32%

of bridge millennials

who own voice-activated speakers use them to buy things online.

Meanwhile, 8.8 percent of bridge millennials use both devices to make purchases, while 3.3 percent make purchases only with their voice-activated speakers and 4.9 percent use only smartphones.

This suggests that consumers do not have a strong preference for one type of connected device over another. They are more interested in the ability to use their voices to make purchases than they are in which type of device allows them to do so.

We also notice an interesting difference in the ways super-connected consumers and bridge millennials use their voice-enabled devices. Super-connected consumers are more likely than bridge millennials to own voice-enabled devices, but bridge millennials are more likely to use those devices to buy things.

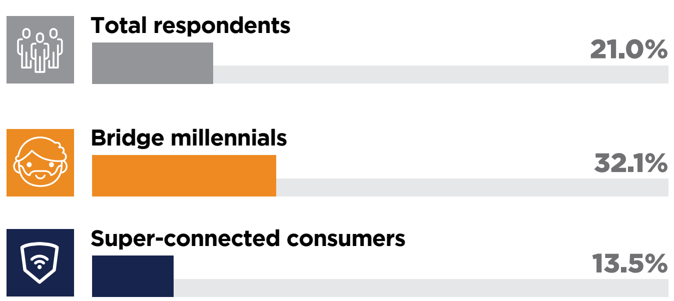
As seen in Figure 12 above, 61 percent of super-connected consumers own both voice-activated speakers and smartphones. Just 37 percent of bridge millennials own both.

Yet, 32 percent of bridge millennials who own voice-activated speakers use those speakers to buy things online, while just 14 percent of super-connected consumers do the same. Similarly, 15 percent of bridge millennials who own smartphones use them to make voice-enabled purhcases, compared to 10 percent of super-connected consumers who own smartphones.

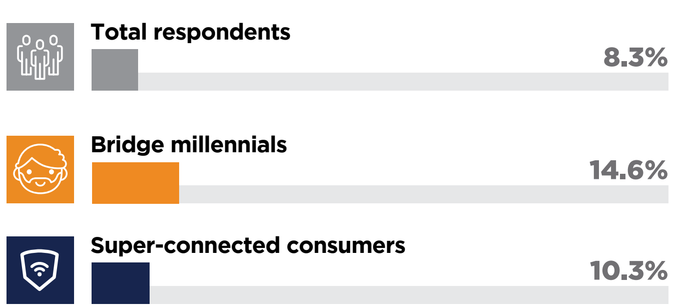
FIGURE 13:

Which voice-enabled devices consumers own and use

A: Share of voice-activated speaker owners who use voice recognition technology to make purchases with voice speakers, by persona



B: Share of smartphone owners who use voice recognition technology to make purchases with their smartphones, by persona



Source: PYMNTS.com

The interest in using voice increases significantly when paired with a screen experience. Thirty percent of all respondents express an interest in using voice to make purchases if it is accompanied by emails related to the items, and 32 percent of all respondents would be interested in using voice-activated speakers to send them links to retail items they might be interested in buying.

Moreover, interest in connected experiences that pair voice-recognition technology with visuals is highest among consumers who already own at least one type of voice-enabled device. Forty-five percent of consumers who own voice-enabled devices say they would be interested in using these connected commerce technologies. Just 24 percent of consumers who do not own connected devices say they would like to use voice assistants to send links to items they would like to purchase, and 26 percent say they would like to have voice assistants send them links to items for which they had searched. This indicates that consumer demand for connected commerce experiences will most likely grow more prevalent as ownership of voice-enabled devices continues to proliferate.

VOICE YOU CAN SEE

TOTAL RESPONDENTS
BRIDGE MILLENNIALS
SUPER-CONNECTED CONSUMERS

- **INCREASING DEMAND FOR VOICE-ENABLED COMMERCE**
  More consumers who own voice-activated devices are using them to buy things. Twenty-eight percent of voice-activated device owners used such devices to make purchases in 2018. That figure has since increased to 31 percent.

- **VOICE PROVIDES CHOICE**
  More than 30 percent of respondents are interested in new voice-related commerce opportunities, such as voice assistants that send emails on related items or assistants that provide links to the items in which consumers are interested.

- **THE UP-AND-COMING**
  Those who would like to see devices enhance retail-related experiences increasingly prefer voice assistants.

Consumers use voice-enabled smartphones **to purchase products and services.**

Total respondents	Bridge millennials	Super-connected consumers
3.1%	4.9%	4.4%

More consumers **are making purchases via voice-enabled smartphones** compared to last year.

2018	2019
7.7%	9.6%

SMARTPHONE

Smartphones are the most ubiquitous of all connected devices, with 90 percent of all consumers owning at least one. Their small sizes and portability make them particularly useful in the connected economy. With smartphones, consumers can — and do — browse, shop and buy whatever they want, wherever they want and whenever they want.

Consumers would like voice assistants to send items to their devices for **choosing and purchasing products or services.**

Total respondents	Bridge millennials	Super-connected consumers
30%	43%	43%

More consumers **own voice assistant devices** compared to last year.

2018	2019
27%	31%

VOICE ASSISTANT

Voice assistants are relative newcomers to the connected commerce ecosystem, but they have already managed to work their way into the mainstream. Consumers enjoy using their voices to shop online, and super-connected consumers and bridge millennials find it particularly appealing. More importantly, ownership of voice assistant devices has doubled in just three years, outpacing the growth in ownership experienced by other device types.

VOICE TECHNOLOGY USAGE **IN DAILY ACTIVITIES**

	2018	2019
WATCHING TV	3.9%	9.0%
HOUSE CLEANING	4.3%	8.5%
SHOPPING	5.4%	7.7%
BUYING GROCERIES	3.9%	7.5%
HAVING DINNER	4.3%	7.6%

IN CONNECTED COMMERCE WE TRUST

It seems indisputable that the consumer's embrace of and interest in a connected purchasing experience is strong and growing stronger. The question then becomes: Who do they trust to enable those experiences?

As part of our annual study, we ask respondents to name which brands they trust to innovate these new connected commerce experiences. The list is long and diverse — from banks to card networks to merchants to FinTechs and BigTech players. What we have learned is that consumers trust a connected ecosystem to deliver it — consisting of their banks, the card networks and the FinTechs that enable their connected commerce experiences.

Consumers in our study identify Visa (44 percent), PayPal (43 percent), Amazon (40 percent), their banks (33 percent) and Mastercard (32 percent) as those they trust the most to innovate their connected commerce experiences.

44%

of consumers in our study identify Visa **as the financial services firm they trust the most to innovate their connected commerce experiences.**

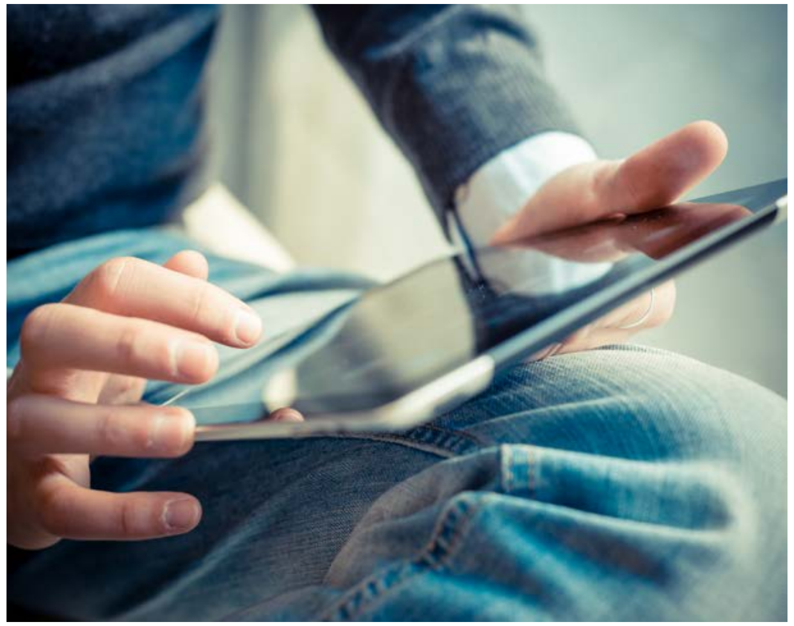
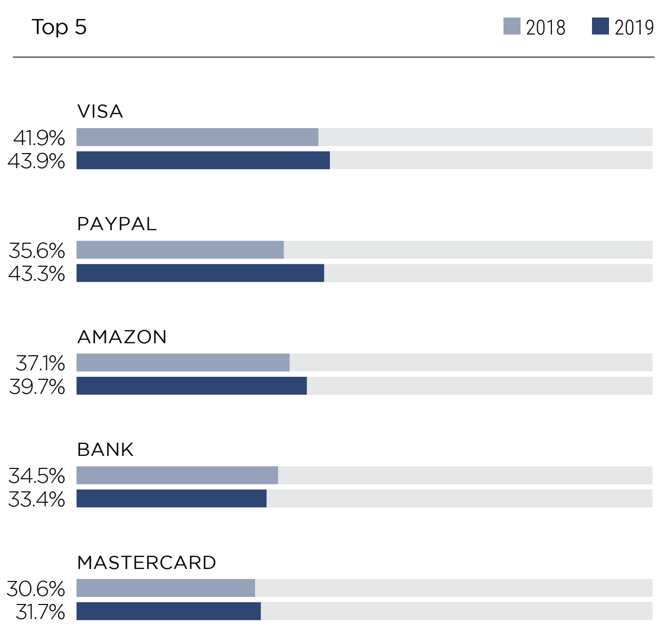


FIGURE 14:

Whom consumers trust to enable their connected commerce experiences

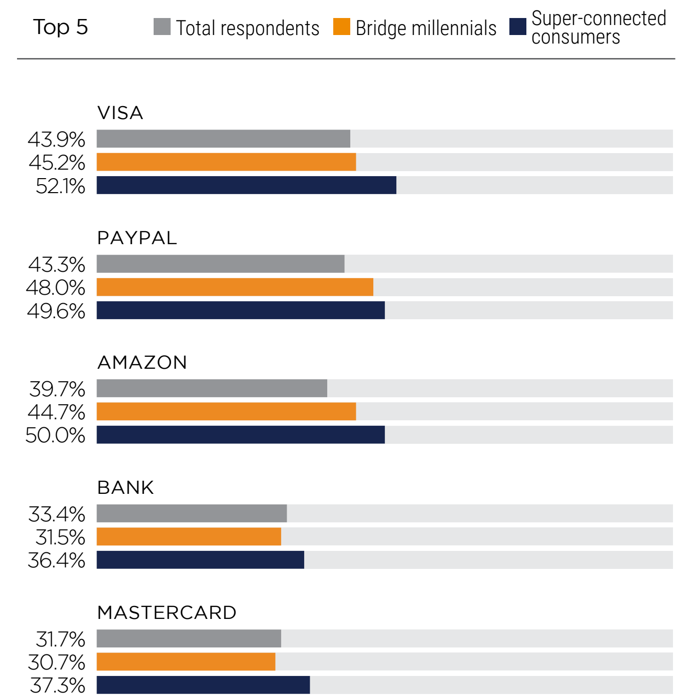
A: Share of respondents who trust select providers to enable connected commerce retail opportunities in 2019 versus 2018



Activity (rest of sample)	2018	2019
Google	25.3%	**28.0%**
Apple	26.0%	**27.4%**
Walmart	21.8%	**21.6%**
American Express	20.3%	**20.0%**
Microsoft	17.9%	**18.2%**
Discover	17.3%	**17.4%**
Samsung	16.0%	**16.8%**
Favorite retailer	10.2%	**9.4%**
Facebook	8.6%	**9.1%**

Source: PYMNTS.com

B: Share of respondents who trust select providers to enable connected commerce retail opportunities in 2019, by persona



Activity (rest of sample)			
Google	28.0%	37.9%	34.1%
Apple	27.4%	28.9%	38.3%
Walmart	21.6%	27.1%	23.3%
American Express	20.0%	22.4%	25.9%
Microsoft	18.2%	18.8%	22.0%
Discover	17.4%	15.7%	20.4%
Samsung	16.8%	22.3%	20.5%
Favorite retailer	9.4%	10.0%	11.3%
Facebook	9.1%	13.6%	10.2%

Source: PYMNTS.com

GOOGLE
IS MORE FAVORED AMONG **bridge millennials than Apple.**

Facebook remains last on the list, with the consumers' favorite retailers faring only slightly better. Apple and Google have both inched up slightly since last year.

Consumers' trust in different brands also shifts along demographic lines. Super-connected consumers tend to place more trust than other consumers in all connected commerce enablers, likely due to their comfort level with using devices and apps to make purchases. In particular, Google is more favored among bridge millennials than Apple, and Apple is more favored by the super-connected than Google.

Despite these minor demographic differences, it is clear as connected devices proliferate, and enable an ever-wider array of connected commerce experiences, that consumers will look to the card networks and their banks to power the FinTech experiences that now define their everyday connected commerce lives.

WHO'S THE MOST CONNECTED CONSUMER PERSONA OF THEM ALL?

According to our study, super-connected consumers and bridge millennials are the earliest adopters of new connected commerce technologies and are the most prolific of all consumers who use them to make purchases. Both bridge millennials (60 percent) and super-connected consumers (58 percent) say they enjoy trying and using new connected commerce technologies. Nearly six out of 10 super-connected and bridge millennial consumers make purchases online (58.7 percent and 59.8 percent, respectively) and nearly eight in 10 are interested in trying new connected commerce use cases (88 percent of bridge millennials and 86 percent of super-connected consumers).

Both super-connected consumers and bridge millennials own more connected devices on the individual level than the population as a whole, but for what seem like very different reasons.

The super-connected typically own more connected devices than bridge millennials, who own fewer devices but use them more often to buy things. On average, super-connected consumers own 7.7 connected devices and bridge millennials own 6. All surveyed consumers own an average of 4.9 connected devices.

Bridge millennials are more likely to shop online and use the connected devices they do own to buy things during the course of their days. Of the 14 daily activities that define a day in the life of a bridge millennial, they make purchases during nearly half of them — 6.4 of the 14 daily activities.

FIGURE 15:

Ownership of connected devices in 2019

Share of respondents who possess select devices and engage in select activities, by persona

	Sample total	Bridge millennials	Super-connected consumers
	N = 5,050	N = 1,076	N = 1,832
Average number of devices owned	4.9	6.0	7.7
Average number of daily activities	12.3	14.1	12.5
Average number of daily activities during which a purchase was made	4.3	6.4	4.8
Percentage who make eCommerce purchases	52.5%	59.8%	58.7%
Percentage who purchase with voice assistants	9.6%	17.0%	12.8%
Percentage interested in new ways of shopping	72.7%	87.7%	86.1%
Percentage interested in contactless	31.3%	43.4%	42.2%

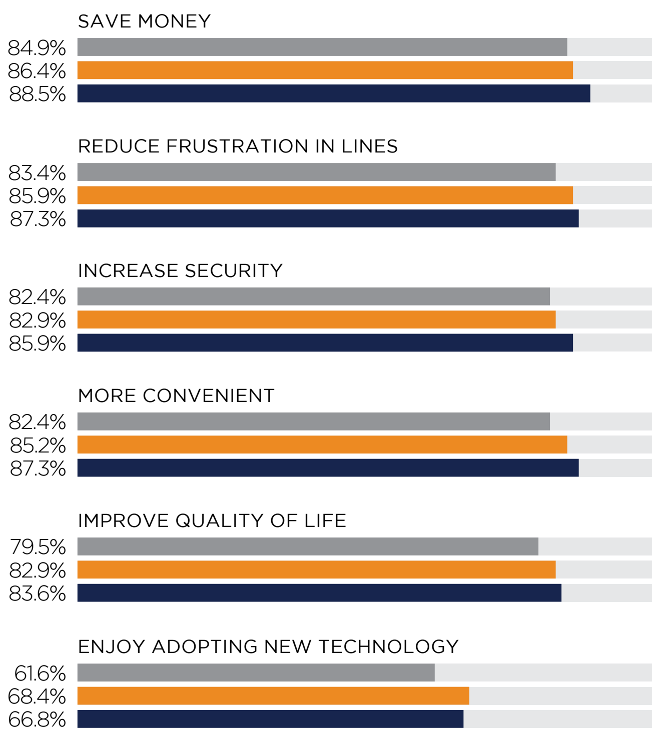
Source: PYMNTS.com

Super-connected consumers, on the other hand, make purchases during nearly 40 percent of their everyday activities: 4.8 of their approximately 12.5 daily tasks. Both super-connected consumers and bridge millennials thus gravitate toward connected commerce experiences for many similar reasons. Bridge millennials simply seem to have found more ways to actively incorporate those experiences into their daily lives.

FIGURE 16:

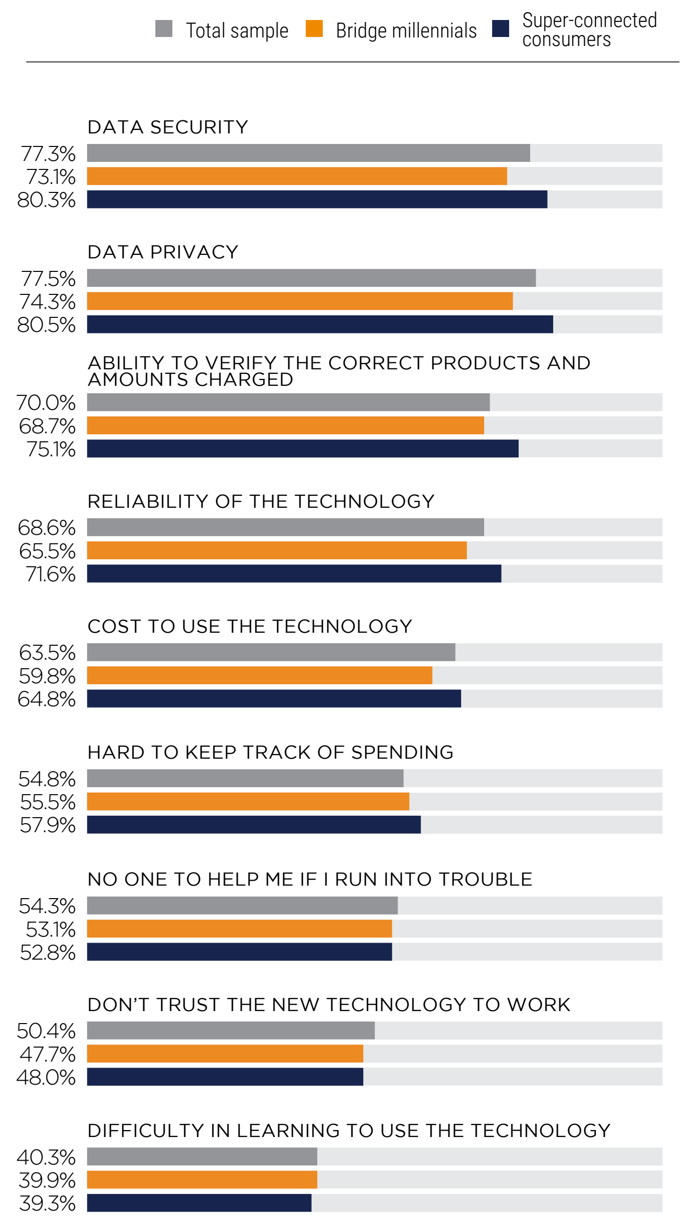
Which connected devices consumers own

A: Share of interested respondents citing select reasons for their interest in new connected commerce experiences, by persona



Source: PYMNTS.com

B: Share of respondents citing select reasons for their lack of interest in new connected commerce experiences, by persona



Source: PYMNTS.com

This is in contrast with super-connected consumers, who do not hail from any particular age bracket. As a group, these consumers are defined not by their common experiences with technology, but rather their love of it.

Regardless of why these two groups are so much more enthusiastic about connected commerce, it is clear that both are key players in the new connected ecosystem. They are the earliest adopters of new connected experiences, and are also those most likely to trigger the demand for the integrated purchasing experiences that will define commerce in the decade ahead.

SUPER-CONNECTED CONSUMERS **VERSUS** BRIDGE MILLENNIALS

- **Bridge millennials**
  They own fewer devices than super-connected consumers, but they are more likely to use them to make purchases. Bridge millennials engage in more than 14 activities per day on average and make purchases 45 percent of the time.

- **Super-connected consumers**
  They appear to be interested in almost all types of connected commerce payments. This contrasts with bridge millennials, who are more selective in their usage of connected devices to make purchases.

BRIDGE MILLENNIALS

DEMOGRAPHICS

GENDER
Male 51%
Female 49%

AGE
30 TO 40 YEARS OLD
AVERAGE: **36**

EDUCATION
High school or lower 57%
College or higher 43%

INCOME
< $50K 25%
$50K–$100K 34%
> $100K 41%

DEVICE USAGE

AVERAGE NUMBER OF **DEVICES OWNED** **6.0**

TOP DEVICES FOR **BRIDGE MILLENNIALS**

94% SMARTPHONE

86%	65%	62%	60%
Computer	Tablet	Smart TV	Game console

TOP ACTIVITIES

IN-STORE
39% Buy groceries

eCOMMERCE
46% Pay bills

VOICE
10% Travel long distances

USE CASES

HOW THEY USE DEVICES	WHY THEY USE DEVICES	INHIBITORS
#1 **61%** Automated payments at the pump	#1 **86%** To save money	#1 **74%** Data privacy
#2 **55%** Automated purchases for clothing	#1 **86%** To reduce frustration of waiting in line	#2 **73%** Data security
#3 **54%** Automated payments at restaurant	#3 **85%** To be more convenient	#3 **69%** Accurate products and payments data

TRUST

MOST TRUSTED PROVIDERS

PayPal	VISA	amazon
#1 48%	#2 45%	#2 45%

SUPER-CONNECTED CONSUMERS

DEMOGRAPHICS

GENDER
Male 48%
Female 52%

AGE

18–24	25–34	35–44	45–54	55–64	65+
13%	24%	20%	19%	13%	12%

AVERAGE: **42**

EDUCATION
High school or lower 60%
College or higher 40%

INCOME
< $50K 16%
$50K–$100K 33%
> $100K 51%

DEVICE USAGE

AVERAGE NUMBER OF **DEVICES OWNED** **7.7**

TOP DEVICES FOR **SUPER-CONNECTED CONSUMERS**

99% SMARTPHONE

97%	88%	84%	73%
Computer	Tablet	Smart TV	Game console

TOP ACTIVITIES

IN-STORE
49% Buy groceries

eCOMMERCE
52% Pay bills

VOICE
8% Travel long distances

USE CASES

HOW THEY USE DEVICES	WHY THEY USE DEVICES	INHIBITORS
#1 **61%** Automated payments at the pump	#1 **89%** To save money	#1 **81%** Data privacy
#2 **53%** Automated purchases for clothing	#2 **87%** To reduce frustration of waiting in line	#2 **80%** Data security
#3 **52%** App to keep track of spending	#2 **87%** To be more convenient	#3 **75%** Accurate products and payments data

TRUST

MOST TRUSTED PROVIDERS

VISA	amazon	PayPal
#1 52%	#2 50%	#3 50%

CONCLUSION

Consumers are curating their device collections and reshaping the connected commerce landscape. The age of experimentation and wild enthusiasm for trying new devices and use cases has become a bit more muted, as consumers now make personal value judgements about the devices and use cases that make commerce an embedded part of their everyday activities. As a result, they are shedding the devices and apps that worked well in a finite use case or for a particular part of their daily activities for those that allow them to "multitask commerce" across devices, purchasing environments and everyday activities.

It is the very same desire for convenience and ease of use that continues to propel voice-enabled commerce further and further into the mainstream. Relying on one of the most ubiquitous user interfaces on the planet, voice-based commerce offers a truly universal mode of connected commerce — one that is made even more engaging with the help of visual aids, such as smartphone or tablet screens.

It is increasingly clear that, for many consumers, connected devices' primary benefit lies in their ability to provide easy, ubiquitous and universal access to retail goods and services, anywhere, anytime and now while doing anything. The future belongs to those who can create use cases so powerful that consumers barely even notice that they're engaging in commerce while using them at all.

METHODOLOGY

In July 2019, PYMNTS surveyed 5,050 American consumers about the internet-connected devices they own and how they have used them to buy or pay for products during the previous seven days. We asked them questions on their shopping use cases, which devices they used to make those purchases and why they made purchases using their connected devices of choice.

This is the third time we have conducted this survey. In 2017, we studied consumers who either owned only a smartphone or a smartphone in addition to at least one other connected device. In 2018, we expanded our sample to include consumers who owned one or more connected devices, regardless of whether they possessed a smartphone. The 2019 survey was designed to match last year's, thus rendering the two samples comparable over time. Our sample was census-balanced and matches with general population distribution.

As in 2018, we created personas based on the connected devices that respondents own as part of our analysis. These personas were defined as follows:

- **Smartphone-centric**
  This group just owns a smartphone.
- **Mainstream mobile**
  This group owns a smartphone and a tablet or computer and no other connected device.
- **Connected home:**
  Consumers with fewer than six connected devices, but one of the devices they own is a connected home device (e.g., a voice-activated device or smart appliance).
- **Connected me**
  Consumers who own fewer than six connected devices, at least one of which is a connected wearable device (e.g., smartwatch or activity tracker)
- **Super-connected**
  Consumers that own six or more connected devices.

As can be seen in the table, the personas in our sample span across all demographic groups.

	SAMPLE	United States Census Bureau	Bridge millennials	Super-connected consumers
GENDER				
Female	52.7%	51.6%	49.1%	52.0%
EDUCATION				
College	32.2%	32.3%	42.9%	40.1%
AGE				
Average	47.7	48.1	36.3	42.0
INCOME				
Under $50K	33.4%	34.0%	25.1%	15.9%
$50 - $100K	30.8%	31.4%	34.1%	33.0%
Over $100K	35.8%	34.6%	40.7%	51.0%

Our analysis is centered primarily on super-connected consumers, as well as bridge millennials (respondents who are aged 30 to 40). As seen in the table, these personas span across all demographic groups.

ABOUT

PYMNTS.com

PYMNTS.com is where the best minds and the best content meet on the web to learn about "What's Next" in payments and commerce. Our interactive platform is reinventing the way in which companies in payments share relevant information about the initiatives that shape the future of this dynamic sector and make news. Our data and analytics team includes economists, data scientists and industry analysts who work with companies to measure and quantify the innovation that is at the cutting edge of this new world.

VISA

Visa Inc. (NYSE:V) is a global payments technology company that connects consumers, businesses, financial institutions and governments in more than 200 countries and territories to fast, secure and reliable electronic payments. The company operates one of the world's most advanced processing networks — VisaNet — that is capable of handling more than 65,000 transaction messages a second, with fraud protection for consumers and assured payment for merchants. Visa is not a bank and does not issue cards, extend credit or set rates and fees for consumers. Visa's innovations, however, enable its financial institution customers to offer consumers more choices: pay now with debit, pay ahead with prepaid or pay later with credit products. For more information, visit usa.visa.com/about-visa, visacorporate.tumblr.com and @VisaNews.