OCTOBER 2019 HOW WE WILL PAY BRIEF SERIES

VOICE ASSISTANTS AND CONNECTED COMMERCE'S KILLER APP



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The How We Will Pay Brief Series is part of the How We Will Pay study, a PYMNTS and Visa collaboration, and asks consumers a variety of questions about specific behavioral patterns, buying habits and shopping preferences related to connected commerce. Detailed analyses of the study's findings 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.

The How We Will Pay Brief Series 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

WHY CONSUMERS WANT TO **JUST SAY** TO PAYTM



range of smart home technologies were on the roster at the 2019 Made by Google event, but the one that drew the most attention was not a device at all: It was a subscription service. The new service promises to link all of Google's smart home devices together, allowing users to control them all with their voices from their homes, their cars or pretty much anywhere they have access to their connected devices.¹

Google's announcement came less than a month after General Motors unveiled plans to equip several of its latest models with Alexa. Drivers can browse, shop, pay and control all of the Alexa-linked devices in their homes with the Alexa app on their cars' dashboards.²

By bringing their voice assistants into consumers' homes, cars and devices, Google and Amazon are providing consumers round-the-clock, nearly ubiquitous connected commerce experiences and, in Alexa's case, 100,000 skills.³ This is just the latest development in a story that has been evolving rapidly since the world was introduced to Alexa and the Echo device in 2014.

In the three years we have studied consumers' usage of connected devices to browse, shop and pay for retail purchases, PYMNTS has watched voice-enabled shopping move from the sidelines to the front and center of the eCommerce market. Voice-

¹ Google's plan to make its assistant ubiquitous and invisible. PYMNTS. 2019. https://www.pymnts.com/innovation/2019/googles-plan-to-make-its-assistant-ubiquitous-and-invisible/. Accessed October 2019.

² Wayland, M. GM, Amazon partner to install Alexa voice assistant in cars. CNBC. 2019. https://www.cnbc.com/2019/09/25/gm-amazon-partner-to-install-alexa-voice-assistant-in-cars.html. Accessed October 2019.

³ Wiggers, K. The Alexa skills store now has more than 100,000 voice apps. VentureBeat. 2019. https://venturebeat.com/2019/09/25/the-alexa-skills-store-now-has-more-than-100000-voice-apps/. Accessed October 2019.

enabled device ownership has more than doubled since 2017, bringing consumers' affinity for voice purchases right along with it.

This growth is not limited to consumers buying and using voice speakers, either. Those who use voice are "omnichanneling" across all sorts of devices, especially smartphones, to also see what they have asked voice assistants to help them buy. In essence, voice has become the killer app of connected commerce — and voice plus visual is on pace to become the connected commerce game-changer.

It is easy to see why. Voice-recognition technology makes shopping effortless, allowing consumers to browse, shop and pay for products hands-free. Buying a dress that a shopper saw on her Instagram feed has become as easy saying, "Hey, Alexa, can you send that green dress I saw on Instagram to my phone?"

Modern consumers are using voiceenabled devices during virtually all of their daily activities. They are shopping and buying goods with their voices whether eating breakfast, watching television, commuting to work or otherwise.

Those are just few of the examples of how the convenience and ease of use that voice-enabled technologies provide is driving us to reimagine what it means to be a consumer in the age of connected commerce.

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Stormoore Power Yoos

Yoga class with Estelle and Kim

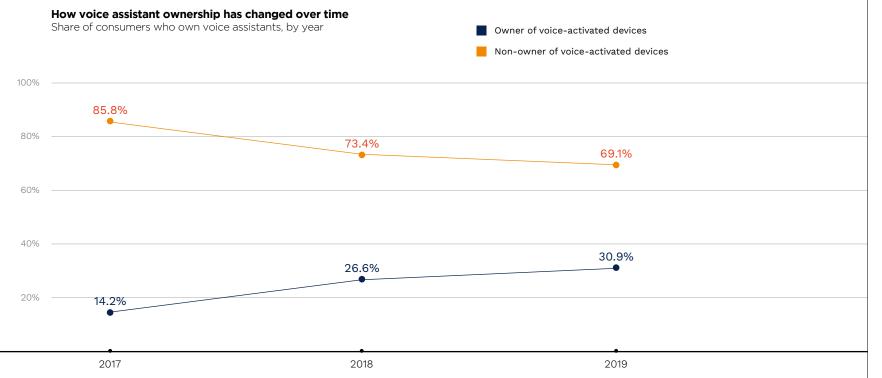
Monthly brunch with brunch crew



Voice as the killer app of connected commerce

Consumers' ownership of voiceactivated devices is growing fast, with the share who own such devices doubling since 2017. As part of our third annual How We Will Pay study, a Visa collaboration, PYMNTS surveyed more than 5,000 United States consumers to learn more about how connected devices - including voice-activated devices - have become part of their everyday lives. Our extensive research shows 31 percent of U.S. consumers now own voice-activated devices. compared to 27 percent in 2018 and just 14 percent in 2017. Ownership of other technologies, such as smart televisions and connected cars. increased just 5 percentage points and 3 percentage points respectively since 2018, by comparison.

FIGURE 1:



Source: PYMNTS/Visa How We Will Pay 2019

Voice as an enabler of commerce

30.9%

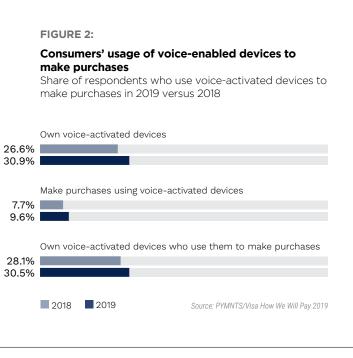
9.6%

28.1% 30.5%

Not only do more consumers own voice-enabled devices than ever, more of them are using those devices to make purchases. Our research shows 9.6 percent of them use voice-activated devices to make eCommerce purchases in 2019, while just 7.7 percent did so in 2018. This growth is even more impressive among consumers who own voice-activated devices. Among the roughly 27 percent who owned voice-activated devices in 2018, 28 percent used those devices to make purchases. Thirty-one percent own voice-activated devices in 2019, and 31 percent of them use those devices to make purchases.



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Voice makes commerce contextual

Using voice for day-to-day purchases is increasingly becoming second nature to consumers. The portion of voice-activated device owners who use them to buy while watching television is up, having increased from 3.9 percent in 2018 to 9 percent in 2019. The shares of those who make purchases while cleaning their houses

and eating lunch have also increased, from 4.3 percent in 2018 to 8.5 percent and from 3.7 percent to 5.3 percent in the last year, respectively. The overall share of consumers who use voice-activated devices to make purchases has increased in every use case during the past year.

THE OVERALL SHARE OF CONSUMERS WHO USE VOICE-ACTIVATED DEVICES TO MAKE PURCHASES **HAS INCREASED IN EVERY USE CASE** DURING THE PAST YEAR.

FIGURE 3:

How consumers use voice-enabled devices to make purchases Share of all respondents and voice assistant owners who use voice-recognition technology to make purchases



	Total	Total sample		Voice assistant owners		
_	2018	2019	2018	2019		
	1.0%	2.8%	3.9%	9.0%		
	0.0%	2.1%	0.0%	6.7%		
	1.2%	2.4%	4.3%	7.6%		
	1.5%	2.6%	5.7%	8.5%		
	1.6%	2.3%	6.0%	7.4%		
	1.2%	2.6%	4.3%	8.5%		
	0.7%	1.1%	2.4%	3.7%		
	1.2%	1.7%	4.5%	5.6%		
	1.0%	1.6%	3.7%	5.3%		
	1.0%	2.1%	3.9%	6.8%		
	1.3%	1.8%	4.9%	5.9%		
	0.9%	1.4%	3.4%	4.7%		
	1.4%	2.4%	5.4%	7.7%		
	0.8%	1.7%	3.1%	5.5%		
	0.7%	1.6%	2.7%	5.0%		
	0.8%	1.8%	3.1%	5.9%		
	1.0%	2.3%	3.9%	7.5%		
	1.1%	2.1%	4.1%	6.7%		

Source: PYMNTS/Visa How We Will Pay 2019

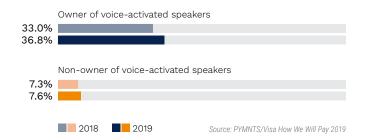
Voice changes friends' and families' shopping habits

Voice-activated devices are becoming fixtures in consumers' homes, with many device owners sharing them with their family members, friends, roommates and significant others. This is allowing even those who do not own voice assistants to get in on the action.

FIGURE 4:

How consumers use voice-enabled devices to make purchases

Share of respondents who use voice-recognition technology during any activity, by ownership



Thirty-three percent of voice-activated device owners used voice assistants while performing other activities in 2018, and 37 percent did so in 2019. Meanwhile, 7.3 percent of consumers who do not own such devices used them in 2018, compared to 7.6 percent in 2019. This means that both consumers who own voice devices and those who do not are using them more now than last year, and serves as yet another sign that this usage will likely grow more popular in the future.



How consumers use voice-activated devices Share who use voice-recognition technology, by device ownership

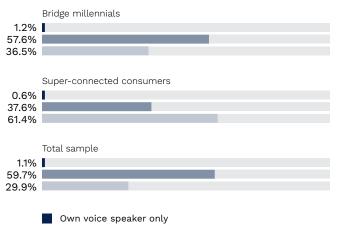


Voice assis	Voice assistant owners		Non-owners	
2018	2019	2018	2019	
6.0%	7.0%	1.5%	1.3%	
0.0%	1.0%	1.3%	1.370	
—	13.5%	—	4.1%	
6.3%	9.3%	1.2%	1.1%	
10.9%	14.8%	1.9%	1.6%	
11.5%	16.0%	1.7%	1.8%	
11.1%	22.5%	2.3%	1.8%	
9.6%	9.0%	1.2%	1.3%	
6.0%	7.7%	2.0%	1.8%	
7.4%	6.5%	1.3%	1.1%	
6.8%	8.4%	2.8%	1.9%	
8.5%	6.6%	2.2%	2.1%	
14.1%	19.3%	2.5%	4.1%	
6.5%	8.0%	2.5%	1.3%	
11.5%	13.2%	3.7%	3.9%	
14.9%	12.0%	4.5%	3.0%	
9.6%	10.7%	1.3%	2.9%	
7.6%	7.5%	2.3%	1.4%	
8.4%	13.5%	5.2%	4.1%	

Source: PYMNTS/Visa How We Will Pay 2019

FIGURE 6:

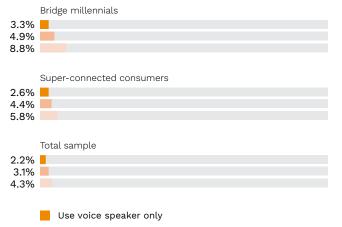
The voice-enabled devices consumers own and use Share of respondents who own select voice-enabled devices



Own smartphone only

Own both voice speaker and smartphone

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



- Use smartphone only
- Use both voice speaker and smartphone

Voice powers commerce across devices

all voice-enabled purchases Not are made via voice-enabled speakers, however. Consumers use many technologies — especially other smartphones — to facilitate them. Consumers most commonly report using voice to shop among multiple types of devices, in fact. Our research shows that 4.3 percent of consumers use both smartphones and voice speakers to buy things online. Just 3.1 percent use only their smartphones, and 2.2 percent use only their smart speakers to make such purchases.

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

Voice appeals to consumers across the board

Consumers' usage of voice-activated devices to make purchases changes depending on their demographics and general affinities for connected Bridge millennials technology. consumers between 30 and 40 years of age who straddle the cultural divide between millennials and Generation X — are the most enthusiastic of all consumers when it comes to making purchases with voiceactivated speakers and smartphones. Super-connected consumers, who own at least six connected devices. are not far behind.

Source: PYMNTS/Visa How We Will Pay 2019

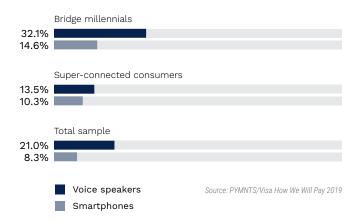
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Sixty-one percent of super-connected consumers own both voice-activated speakers and smartphones, and 14 percent use them to make purchases. Just 37 percent of bridge millennials own both, in comparison, but 17 percent of those who own voice-activated speakers use them to make purchases. Similarly, 15 percent of bridge millennials who own smartphones use them to make voice-enabled purchases, compared to 10 percent of super-connected consumers who own smartphones.

FIGURE 7:

Which voice-enabled devices consumers own and use Share of smartphone and voice-activated speaker

owners who use their respective devices to make voice-enabled purchases, by persona



CONSUMERS WHO OWN ASSISTANTS ARF MORE **OPEN TO AND INTERESTED IN TRYING NEW** CONNECTED **COMMERCE EXPERIENCES** THAN CONSUMERS

WHO DO NOT OWN VOICE ASSISTANTS.

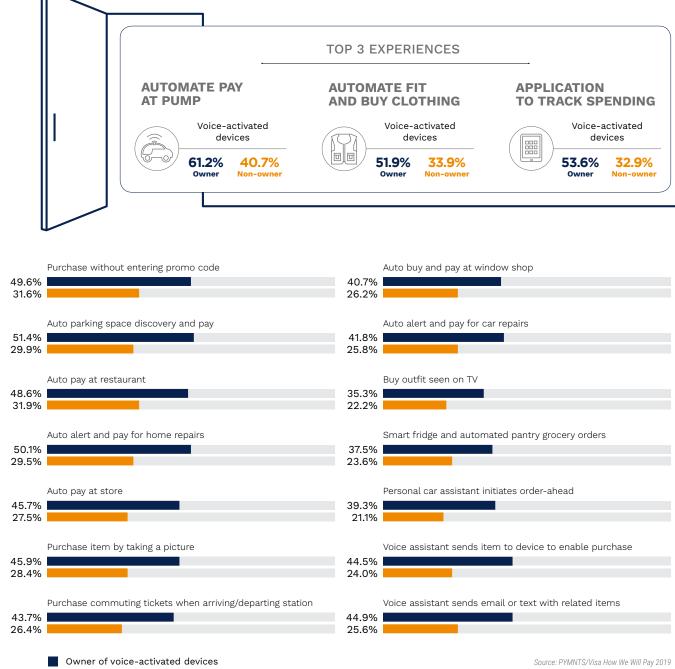
Voice as a doorway to new connected experiences

Consumers who own voice assistants are more open to and interested in trying new connected commerce experiences than consumers who do not own voice assistants — by a lot.

Our survey shows 61 percent of voice assistant owners are interested in apps that allow them to automatically pay at the gas station, for example. Only 41 percent of consumers who do not own voice assistants say the same. Along the same lines, 46 percent of voice assistant owners are interested in apps that allow them to automatically pay at stores. This compares to 28 percent of non-owners who say the same, and indicates that demand for connected commerce experiences will most likely grow more prevalent as ownership of voice-enabled devices proliferates.

FIGURE 8:

How voice enhances consumers' interest in new ways to shop and pay Share of consumers who are interested in new purchasing experiences, by device ownership



Non-owner of voice-activated devices



person's voice is the most natural and universal of all payment form factors. Human beings are taught to speak before they are taught to walk, read or write.

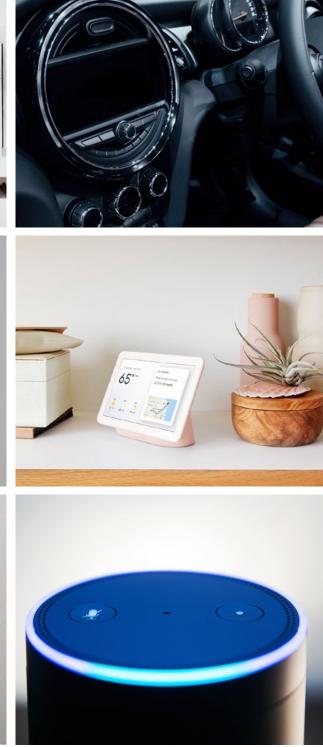
Communicating via voice has also been part of commerce for millennia. Consumers and shopkeepers talk about what is available to purchase, and at checkout about how much they must pay and what they will use to pay what is due. Voice assistants and the expanding number of connected endpoints now enabled by voice tap into that most basic of way of communicating. Innovators are using technology, data, artificial intelligence and voice to replicate and enhance that experience — and power entirely new ones. After decades of innovation designed to reduce the hassle of cash, checks and cards, consumers can finally just say to pay.











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