The Securing eCommerce Study, a PYMNTS and NuData collaboration, provides a detailed overview of consumers' shifting attitudes about data security as online shopping grows more central to their daily lives. We surveyed a census-balanced panel of 2,368 U.S. consumers to learn how the pandemic has impacted their eCommerce shopping habits as well as their sensitivity to the risks of fraud and data theft.

PYMNTS.com | NuData Security mastercard

SECURING
eCommerce
STUDY

MAY 2021

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Introduction

The United States District Court for the Central District of California filed an indictment against "Pokeball" and "BigBoy1828," pseudonyms for a cybercriminal who conspired to commit wire fraud on Feb. 19, 2021. The defendant is alleged to have compensated two employees of a third-party contractor to steal a year's worth of data from some of the merchants on Shopify's platform, including Kylie Jenner's Kylie Cosmetics, among others.[1]

The jury is out on whether "Pokeball" will ultimately be found guilty, but the verdict will likely come too late to undo the damage inflicted on the merchants whose customers' data was stolen. PYMNTS' latest research reveals that eCommerce customers who have fallen victim to fraud or theft are unlikely to forgive and forget.

This research, commissioned by NuData and conducted between Feb. 26 and Feb. 28, 2021, shows that consumers believe it is merchants' responsibility to keep their personal and transactional data safe — and they will hold merchants accountable if that data is stolen. Sixty-five percent of eCommerce shoppers are likely to terminate their relationships with merchants after experiencing even a single instance of data theft or payment fraud. This places eTailers on the hook for each and every potential fraud attempt, no matter who might ultimately be at fault.

With so much on the line, it is critical that merchants take proactive measures to both defend against data theft and fraud and give their customers confidence that their personal data will remain safe and secure. What can eTailers do to signal to shoppers that their shopping experience will be safe and their information will remain private and secure?

The Securing eCommerce Study reports the findings of a census-balanced panel of 2,368 U.S. consumers about their online shopping habits, how those shopping habits may have changed since the pandemic began and whether their shift to digital shopping has had any impact on their sensitivity to the risk of fraud and data theft.

This is what we learned.

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1 Whittaker, Z. US charges California man over Shopify data breach. TechCrunch. 2021. https://techcrunch.com/2021/04/05/shopify-breach-hacker-indicted/. Accessed April 2021.

1: Consumers hold merchants accountable for hacks and data theft. Sixty-five percent say they would not shop with a given merchant again if their personal data were breached.

Consumers expect their transactional data to be kept private, and they are unforgiving of merchants whom they perceive as responsible for data breaches and hacks. Sixty-five percent of all consumers say that if they were to experience even a single instance of fraud or data theft after a transaction, they would be "not at all" or just "slightly" likely to shop with that retailer again.

Low-income consumers (those earning less than $50,000 annually) along with baby boomers and seniors are even less forgiving, with 72 percent of them saying that they would terminate their relationships with retailers with which they experience either fraud or data theft. As much as 80 percent of baby boomers and seniors would be "not at all" or "slightly" likely to shop with a merchant after a single data breach or falling victim to fraud.

2: Personal data protection is a key consideration for consumers who shop with new merchants. Fifty-nine percent of consumers say that a guarantee of personal data protection is required for them to consider purchasing products from merchants.

Consumers have come to value their data protection so highly that it plays a deciding role in where they choose to shop. Fifty-nine percent of all consumers cite personal data protection to be an important factor influencing their shopping decisions. Personal data protection is, in fact, as important a factor for consumers as stock availability. In other words, consumers are just as likely to choose new merchants based on their data security as they are to choose them for stocking the very items they want to buy in the first place.

Precisely what makes consumers feel secure about their eCommerce payments is not always clear, as the most common reason they give is that they simply "trust" the payment methods they use. There are nevertheless several checkout features that consumers tend to associate with stronger data security, regardless of how effective

they actually are: extra authentication requirements, traceability and consistent identity verification. Fifteen percent of eCommerce shoppers say they feel secure with the payment methods they use because the methods ask them for additional authentication requirements, which might include passwords, PIN codes or one-time access codes. Twelve percent of eCommerce shoppers say the biggest reason they feel secure with their preferred payment methods is their traceability, and 11 percent cite constant privacy verification as the primary reason for feeling secure. It is therefore clear that consumers still equate passwords and PIN codes with strong data security, despite their being widely considered less secure than techniques such as biometrics.

> Whether retailers realize it or not, consumers see them as **principally responsible for their data security.**

3: Consumers' shift to digital has also increased their awareness of data security risks. Nearly half of all consumers are more concerned about data security risks now than they were before the pandemic began.

The ongoing pandemic has fueled consumers' interest in shopping online, with 61 percent saying they are buying more online now than they did prior to the pandemic's onset. This so-called digital shift — doing less in the physical channel and more in the digital channel — is even stronger among millennials and bridge millennials, the cohort of consumers ages 33 to 43 who straddle the millennial and Gen X demographics. Our research shows that 67 percent of millennials and 65 percent of bridge millennials are making more eCommerce purchases now than they did before the pandemic began.

This increase in eCommerce activity is good news for eTailers hoping to drive sales, but it is also raising consumers' anxieties about how fraudsters and other bad actors might compromise their personal and transactional data. Forty-eight percent of consumers report feeling more concerned about data security risks since the pandemic's onset than they felt before. Forty-two percent feel just as concerned about data security risks now as they felt prior to the pandemic, while only nine percent say their security concerns have been assuaged since the pandemic began. This underscores the importance of making online shoppers feel confident in their merchants' data security as eCommerce continues to grow more central to consumers' daily lives.

4: Guest checkouts are still the most common way consumers pay online today. Seventy-one percent of eCommerce shoppers pay by manually entering their credit or debit card information via guest checkout.

Consumers value expediency in their eCommerce payments, but they do not always use the fastest available payment methods when shopping online. Digital wallets, cards on file and buy buttons are among the fastest payment methods eCommerce shoppers can use, for example, but there is no guarantee that eTailers will accept the digital wallets that their customers want to use, and not all customers want to give eTailers their card information so they can pay via cards on file. The result is that entering either debit or credit card credentials via guest checkouts is still the most common method that eCommerce shoppers use to make purchases. Seventy-one percent of all eCommerce shoppers — 172 million consumers — say they use eTailers' guest checkouts to manually enter their credit card and debit card information, in fact.

5: Digital wallets, especially PayPal, are gaining on guest checkouts. Sixty-eight percent of all eCommerce shoppers — 166 million people — now pay using digital wallets, and 146 million of them use PayPal.

Consumers demand speed, convenience and security from their eCommerce transactions, and this demand is reflected in their payment practices. Sixty-eight percent of all eCommerce shoppers, or 166 million U.S. consumers, use digital wallets to make online purchases, and 60 percent — 146 million people — use PayPal in particular. Only 29 percent of eCommerce shoppers use either Google Pay or Apple Pay, by comparison.

Digital wallets are gaining traction among eCommerce shoppers in large part because they are perceived as faster, more convenient and safer than other methods. PayPal is seen as the most secure digital wallet of all. Fifty-one percent of users say they use PayPal because there is less risk of their data being stolen, and 48 percent say they use it because there is less risk of fraud. Just 35 percent of Google Pay and Apple Pay users cite lower risk of data theft and fraud as their reasons for using these wallets, respectively. Digital wallets' wide usage is therefore another example of how concerns over fraud and data theft are reshaping consumers' payment preferences online.
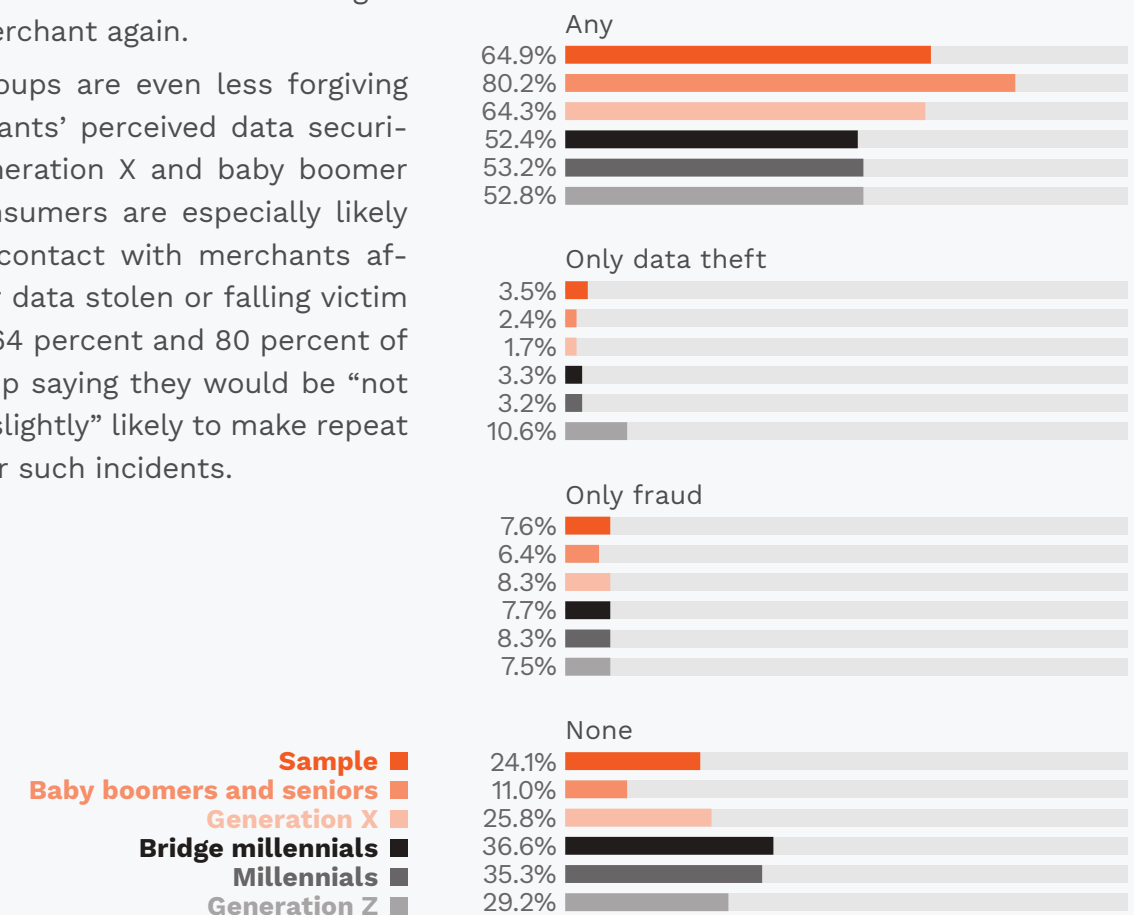
On the hook for data security: **Merchants**

Online shoppers today have zero tolerance for data theft and fraud. Just one instance is enough to drive them away from a merchant for good, regardless of whether or not the merchant was at fault. Sixty-five percent of all eCommerce shoppers say that a single instance of personal data theft will result in their almost never choosing to shop with a merchant again.

Certain age groups are even less forgiving of their merchants' perceived data security failings. Generation X and baby boomer and senior consumers are especially likely to cut off all contact with merchants after having their data stolen or falling victim to fraud, with 64 percent and 80 percent of either age group saying they would be "not at all" or just "slightly" likely to make repeat purchases after such incidents.

FIGURE 1:

How eCommerce shoppers would react to data theft and fraud

Share who are slightly or not at all likely to continue using merchants after experiencing data theft or fraud, by generation

Any
64.9%
80.2%
64.3%
52.4%
53.2%
52.8%

Only data theft
3.5%
2.4%
1.7%
3.3%
3.2%
10.6%

Only fraud
7.6%
6.4%
8.3%
7.7%
8.3%
7.5%

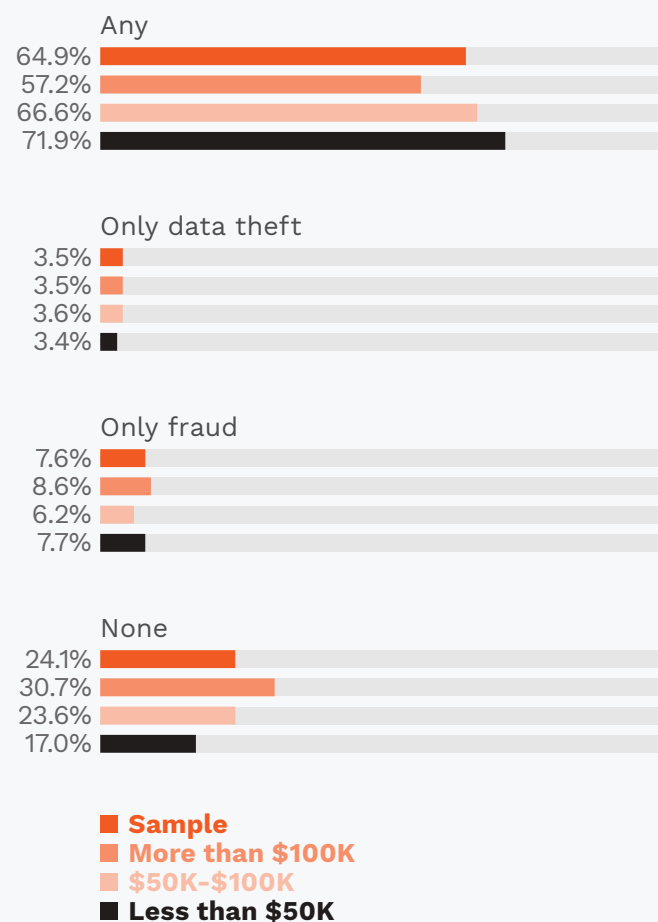|	**None**
Sample ■	24.1%
Baby boomers and seniors ■	11.0%
Generation X ■	25.8%
Bridge millennials ■	36.6%
Millennials ■	35.3%
Generation Z ■	29.2%

Source: PYMNTS.com | NuData
Securing eCommerce Study

Consumers' income levels also play a part in shaping their attitudes toward data breaches: the lower their annual income, the more likely they are to terminate their relationships with eCommerce merchants over data theft and fraud. Seventy-two percent of low-income consumers would either not consider or be only slightly likely to consider shopping with eTailers following attempted fraud or data theft, in fact. Sixty-seven percent of middle-income consumers (individuals who earn between $50,000 and $100,000) would react similarly under such circumstances.

Consumers earning more than $100,000 in annual income tend to grant their eTailers more leeway when it comes to fraud and data theft, but even they are more likely to take their business elsewhere than to keep shopping with the merchant they purchased from upon experiencing a breach. Fifty-seven percent of high-income consumers would be either "not at all" or only "slightly" likely to make subsequent purchases with these eTailers in the future.

How eCommerce shoppers would react to data theft and fraud

Share who are "slightly" or "not at all" likely to continue using merchants after experiencing data theft or fraud, by annual income

Any
64.9%
57.2%
66.6%
71.9%

Only data theft
3.5%
3.5%
3.6%
3.4%

Only fraud
7.6%
8.6%
6.2%
7.7%

None
24.1%
30.7%
23.6%
17.0%

■ **Sample**
■ **More than $100K**
■ **$50K-$100K**
■ **Less than $50K**

Source: PYMNTS.com | NuData
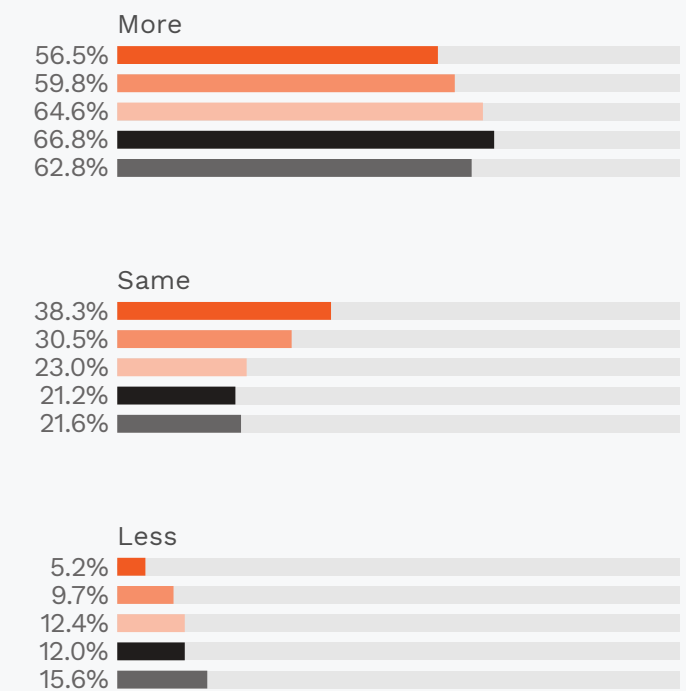Securing eCommerce Study

Remedying **data security** anxiety

The pandemic has supercharged consumers' engagement with online retailers. Every segment of the population is shopping more online than they did before the crisis began. This mass migration toward shopping online is nevertheless stronger among certain consumer segments than others, as millennials and bridge millennials lead the charge.

Millennial eCommerce shoppers are more likely than those in any other age group to have shifted to shopping online, for example. Sixty-seven percent of millennials report shopping online more often now than before the pandemic began, while 65 percent of bridge millennials say the same. Gen X individuals have been slightly less enthused about going online to shop and pay, with 60 percent shopping online more than they did prior to the outbreak.

FIGURE 3:
How much more consumers are shopping online amid the pandemic

3A: Share who are shopping online more, less or as much as they did before the pandemic began, by generation
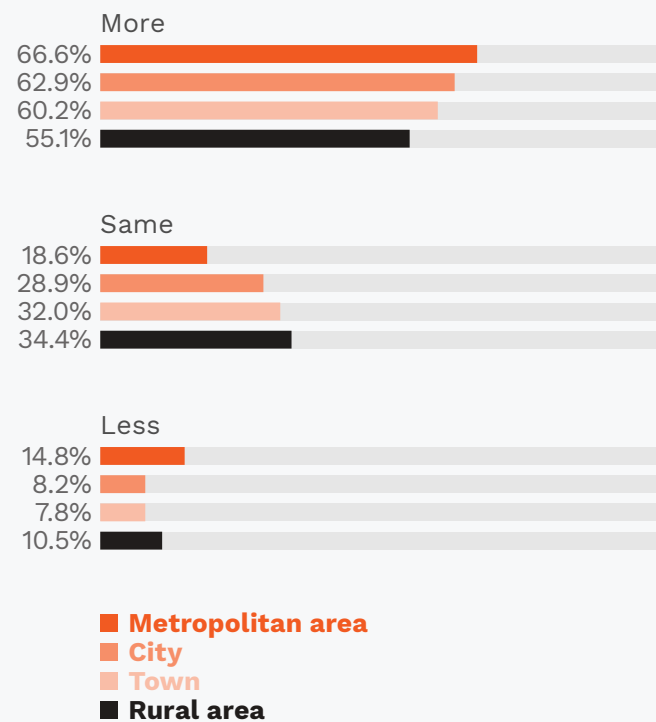

More
56.5%
59.8%
64.6%
66.8%
62.8%

Same
38.3%
30.5%
23.0%
21.2%
21.6%

Baby boomers and seniors ■
Generation X ■
Bridge millennials ■
Millennials ■
Generation Z ■

Less
5.2%
9.7%
12.4%
12.0%
15.6%

Source: PYMNTS.com | NuData
Securing eCommerce Study

How much more consumers are shopping online amid the pandemic

3B: Share who are shopping online more, less or as much as they did before the pandemic began, by geographic location

More
66.6%
62.9%
60.2%
55.1%

Same
18.6%
28.9%
32.0%
34.4%

Less
14.8%
8.2%
7.8%
10.5%

■ **Metropolitan area**
■ **City**
■ **Town**
■ **Rural area**

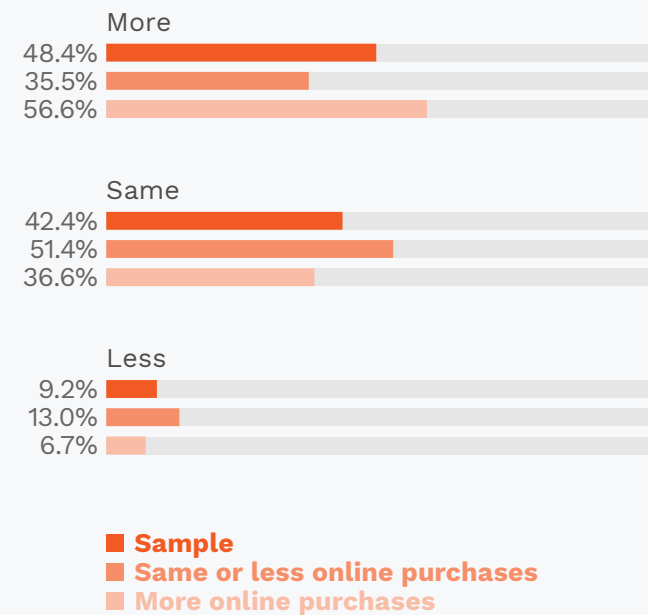Source: **PYMNTS.com | NuData**
Securing eCommerce Study

The extent to which consumers are shifting their shopping online also varies depending on their geographic locales. Those who live in metropolitan areas (urban centers with more than 1 million inhabitants) are the most likely to be shopping in stores less and online more since the pandemic began, with 67 percent doing so. The share of consumers who have made this transition decreases the farther outside metropolitan centers they live. Fifty-five percent of consumers living in rural areas (towns and villages with fewer than 25,000 inhabitants) say they are shopping in stores less and online more since the pandemic began — less than average, but still a majority.

This near-universal surge in online shopping is good news for eTailers, but there is a catch: data security anxiety. Consumers are growing more anxious about their personal data being stolen, and their unease grows more acute as they spend more time shopping online. Forty-eight percent of all consumers say they are more concerned about data security than they were before the pandemic began, but this figure is as high as 57 percent among consumers who are buying more online than they were before the pandemic.

How consumers' concerns about data security and fraud have changed since the pandemic began

Share who are more, less or as concerned about data security as they were, by change in online purchasing frequency

More
48.4%
35.5%
56.6%

Same
42.4%
51.4%
36.6%

Less
9.2%
13.0%
6.7%

■ **Sample**
■ **Same or less online purchases**
■ **More online purchases**

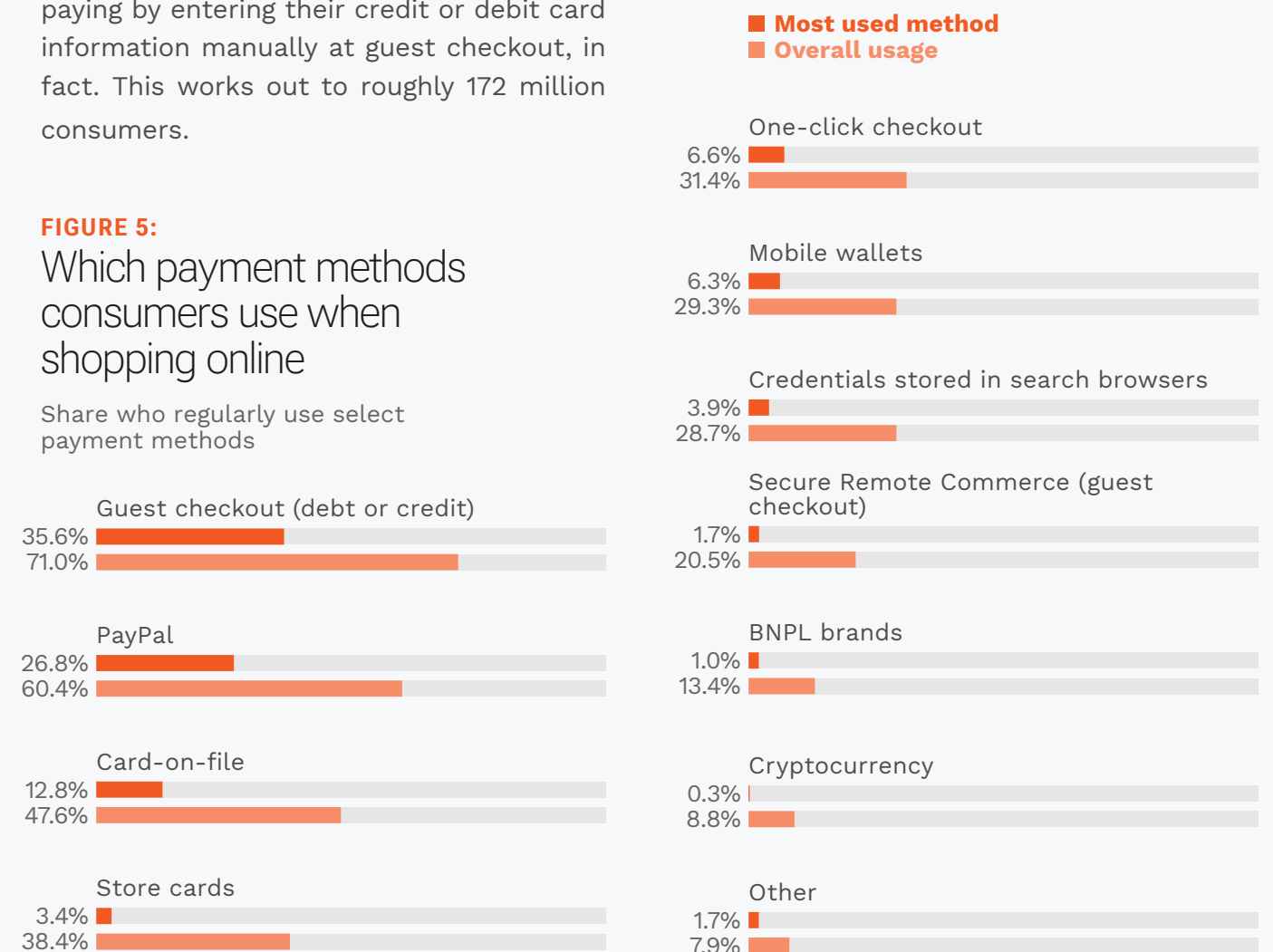Source: **PYMNTS.com | NuData**
Securing eCommerce Study

Consumers who are shopping more online are not the only ones who have grown more concerned about data security risks, however. Even consumers who are purchasing less or exactly as much online as they did before the pandemic began report feeling more worried about their personal data being stolen than they were before it started. It is therefore clear that eTailers will need to make easing consumers' cyberanxieties a top priority if they wish to gain and maintain a competitive edge in the increasingly digital-first economy.

Payments galore: Trust and the digital point of sale

Consumers have myriad payment options while shopping online, ranging from buy buttons to cards on file to mobile wallets and even to cryptocurrencies. The most common way that shoppers pay for their online purchases is nevertheless the tried-and-true guest checkout. Seventy-one percent of eCommerce shoppers report paying by entering their credit or debit card information manually at guest checkout, in fact. This works out to roughly 172 million consumers.

FIGURE 5:
Which payment methods consumers use when shopping online

Share who regularly use select payment methods

■ **Most used method**
■ **Overall usage**

One-click checkout
6.6%
31.4%

Mobile wallets
6.3%
29.3%

Credentials stored in search browsers
3.9%
28.7%

Secure Remote Commerce (guest checkout)
1.7%
20.5%

BNPL brands
1.0%
13.4%

Cryptocurrency
0.3%
8.8%

Other
1.7%
7.9%

Guest checkout (debt or credit)
35.6%
71.0%

PayPal
26.8%
60.4%

Card-on-file
12.8%
47.6%

Store cards
3.4%
38.4%

Source: PYMNTS.com | NuData
Securing eCommerce Study

> PayPal is far and away the most common digital wallet used for digital transactions, with **60 percent of eCommerce shoppers using it** at the online point of sale.
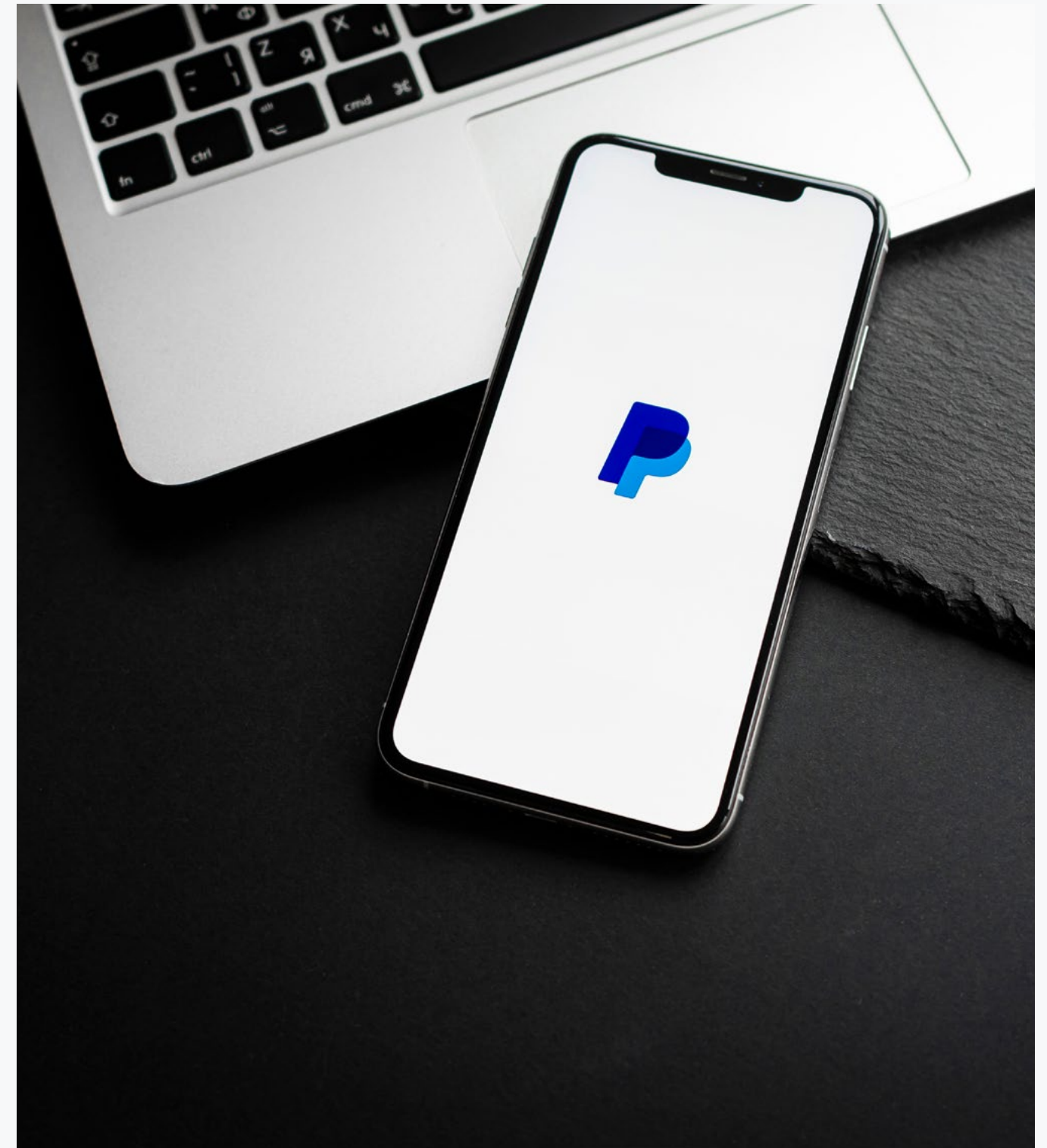
Digital wallets are a close second. Sixty-eight percent of eCommerce shoppers pay using digital wallets like PayPal, Google Pay and Apple Pay.

PayPal is far more commonly used than Apple Pay and Google Pay, however. Sixty percent of all eCommerce shoppers report paying via PayPal, and 29 percent — less than half as many — pay using mobile wallets like either Google Pay or Apple Pay.

Cards on file and store cards round out the top four most commonly used eCommerce payment methods. Forty-eight percent of consumers pay for their online purchases using cards they have already stored on file from previous purchases, and 38 percent pay using store cards.

Other common payment methods consumers use when shopping online include one-click checkout options (including buy buttons) and payment credentials they have stored in their browsers.

Secure remote commerce checkouts, buy now, pay later (BNPL) options and cryptocurrencies wrap up the tail end of the preferred payment methods for online shopping.

The "why"
behind the buy

Providing the right payment options is fundamental to delivering the eCommerce experiences that consumers expect. Consumers want payment methods that meet three key criteria: convenience, speed and security.

Convenience and speed are at the top of consumers' minds when it comes to being able to seamlessly check out online, with more consumers citing these as characteristics they look for in eCommerce payments than all others. Sixty-eight percent of eCommerce shoppers say they like using their preferred payment methods because they are convenient and easy to use, and fifty-nine percent say they prefer them for their speed. There is more

Why consumers use their preferred payment methods for eCommerce transactions

6A: Share citing select reasons for using their payment methods

It's easy and convenient to use.
67.5%

It's fast.
58.5%

If there is an issue, I can get my money back.
36.7%

There is less risk of my data being stolen.
36.0%

There is less risk of fraud.
35.5%

It's easier to track spending.
33.0%

Other
2.4%

Source: PYMNTS.com | NuData
Securing eCommerce Study

FIGURE 6 (continued):

Why consumers use their preferred payment methods for eCommerce transactions

6B: Share citing select reasons for using select payment methods, by preferred method

It's easy and convenient to use.

48.9%	
78.4%	
85.6%	
81.3%	
74.1%	
57.2%	

It's fast.

39.7%	
68.2%	
73.8%	
75.8%	
71.1%	
43.4%	

If there is an issue, I can get my money back.

34.4%	
49.4%	
32.9%	
30.0%	
24.3%	
28.8%	

There is less risk of my data being stolen.

34.5%	
50.5%	
18.9%	
19.3%	
35.1%	
16.2%	

There is less risk of fraud.

35.8%	
47.6%	
19.9%	
19.2%	
35.4%	
28.4%	

It's easier to track spending.

34.8%	
38.0%	
26.0%	
23.2%	
34.5%	
36.5%	

Other

2.9%	
1.5%	
0.3%	
1.9%	
0.0%	
25.5%	

■ **Guest checkout (credit or debit)**
■ **PayPal**
■ **Card-on-file**
■ **One-click checkout**
■ **Mobile wallets**
■ **BNPL**

to online checkout than speed, however. eCommerce shoppers also expect their online transitions to be safe and secure. This means that eTailers must be able to provide money-back guarantees and make consumers understand the steps eTailers are taking to protect consumers' personal data from fraud or theft. Thirty-seven percent of eCommerce shoppers say they prefer the payment methods they do because they know that they can get their money back if something goes awry with their transactions. Thirty-six percent say it is because these methods make them feel that there is a lower risk of their data being stolen and less risk of fraud. This serves as yet another reminder of how critical it has become for eTailers to win over their customers' confidence on matters of data security.

Consumers' demand for fast, convenient and secure eCommerce checkouts has helped make PayPal the second-most common way that consumers pay online. PayPal users are among the most likely to cite not only speed and convenience but also security as reasons for preferring to pay via digital wallet. Seventy-eight percent of consumers who use digital wallets say they use them for their convenience, while 69 percent use them for their speed. We also found that 51 percent of consumers use digital wallets because they believe doing so reduces the risk of their data being stolen.

Digital wallets' speed and convenience place them in stark contrast with manual card entry. Consumers who pay by manually entering their credit or debit card data prioritize convenience and speed far less than those using other methods, though they still put a premium on data security. Forty-nine percent of consumers who pay with credit or debit cards via guest checkout say they do so for convenience, and 40 percent do so for speed — lower than the shares of those using any other payment method.

Guest checkout nevertheless comes in second after digital wallets in terms of security. Thirty-four percent of eCommerce customers who enter their data manually at guest checkout do so because they believe there is less chance of their data being stolen, and 36 percent do so because there is less risk of fraud.

Consumers may not know for a fact that the risk of fraud and data theft is less when transacting via one payment method versus

another, however. Rather, they tend to believe that such risks are lower when using payment methods they know and trust.
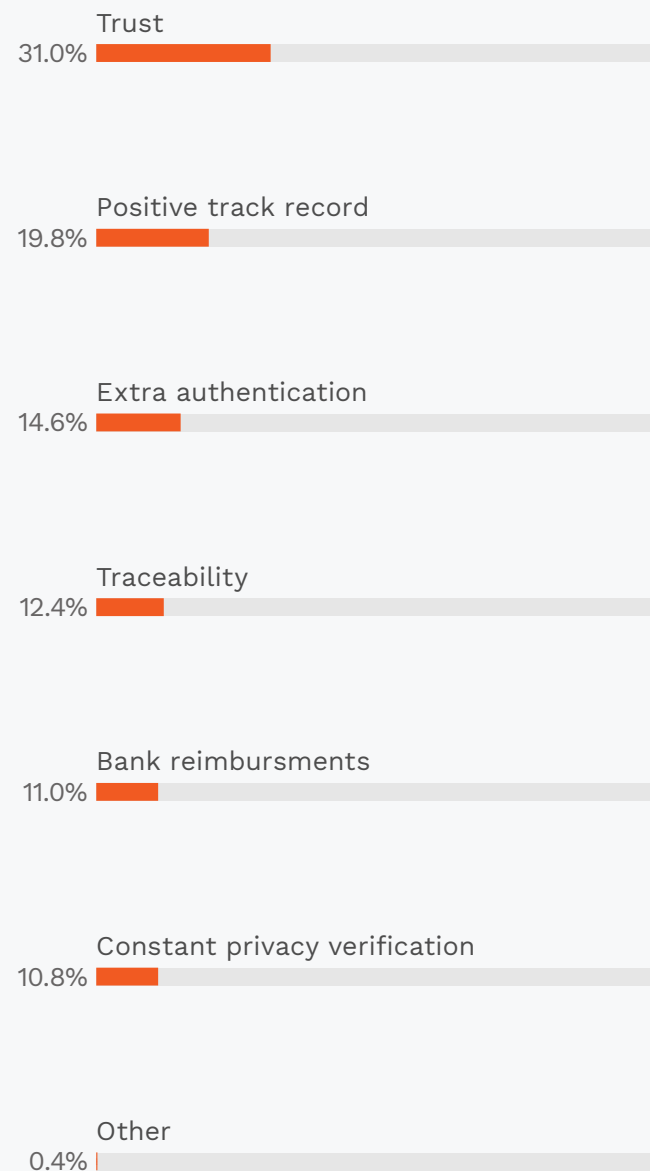
Trust is the most common reason eCommerce shoppers give for feeling secure with their online payments, and having prior positive experiences with such methods is a close second. Thirty-one percent of eCommerce shoppers say that the foremost reason they feel their payments are secure is because they trust the method they use, and 20 percent say they trust their payments primarily because the method they use has a positive track record. This goes to show how important it is for providers to establish strong, trust-based relationships with their users by keeping them informed and educated about data security policies and practices from the start.

Other factors that help foster merchant-customer trust in certain payment methods include extra authentication, traceability, bank reimbursements and having constant privacy verification. Consumers learn to trust their payment methods as they use them.

This also helps explain why guest checkouts are still so common: Consumers have been using them for years and trust that their future guest checkout transactions will be just as secure as those they have conducted in the past. It follows that a greater share of users who prefer guest checkout cite having a positive track record as their

FIGURE 7:

Why eCommerce shoppers feel confident in the security of select payment methods

7A: Share citing select factors as their primary reasons for feeling secure with their payment methods while shopping online

7B: Share citing select factors as their primary reasons for feeling secure with their payment methods while shopping online, by preferred method

Trust
31.0%

Positive track record
19.8%

Extra authentication
14.6%

Traceability
12.4%

Bank reimbursments
11.0%

Constant privacy verification
10.8%

Other
0.4%

Trust
26.5%
34.2%
25.8%
24.3%

Positive track record
25.2%
23.8%
23.0%
10.3%

Extra authentication
14.5%
14.5%
16.9%
9.9%

Traceability
9.8%
10.4%
10.8%
10.0%

Bank reimbursments
15.7%
8.2%
11.5%
7.3%

Constant privacy verification
7.9%
8.4%
11.7%
9.6%

■ **Guest checkout**
■ **PayPal**
■ **Card on file**
■ **Mobile wallets**

Source: PYMNTS.com | NuData
Securing eCommerce Study

reason for feeling secure with it than users who prefer any other payment method.

eCommerce shoppers who use guest checkouts are also the most likely to say they trust that their banks will reimburse their transactions if an issue should arise, and that this is the biggest reason they feel secure making payments online. This is cited by 16 percent of guest checkout users.

It is notable that PayPal users are still more likely to say they trust PayPal than consumers who enter their card information manually are to say they trust guest checkouts. Thirty-four percent of PayPal users say they feel their payments are secure foremost because they trust PayPal, whereas 27 percent of guest checkout users trust that it is safe to enter their card information manually.

Conclusion

Data protection is becoming top-of-mind for consumers as they continue to spend more time shopping and paying online, and merchants are bearing the brunt of the responsibility for it. eTailers must not only provide safe and secure transactions through the payment methods consumers prefer. They must also assuage consumer concerns about fraud and data theft by offering features that consumers associate with strong data security and trustworthiness, such as guarantee or refund policies and tradeable transactions. Providing anything less might be enough for eTailers to lose their competitive edge.

Methodology

The Securing eCommerce Study, a PYMNTS and NuData collaboration, is based on a census-balanced survey of 2,368 U.S. consumers on transaction security in the online space. Fifty-two percent of respondents were female; 32 percent held college degrees; and 33 percent had annual individual incomes of less than $50,000, while 31 and 36 percent had individual incomes of $50,000 to $100,000 and over $100,000, respectively.

Conclusion

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.

NuData Security
mastercard

NuData Security is a Mastercard company. It helps businesses identify users based on their online interactions and stops all forms of automated fraud. By analyzing over 650 billion behavioral events, NuData harnesses the power of behavioral analytics and passive biometrics, enabling its clients to identify the human behind the device accurately.

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