



# MOBILE APPS, WEARABLES, & INVISIBLE PAYMENTS:

## The Journey Toward Frictionless Payments

Who doesn't understand the frustration of waiting in a stagnant checkout line that seems like it hasn't moved and probably won't in the foreseeable future?

Despite the rise of online shopping in the past 20 years, in-store purchases comprise 90% of all retail purchases.<sup>1</sup> Brick and mortar establishments aren't disappearing, however the nature of the customer experience within these establishments has the potential to change drastically in as soon as five years.

**How might  
a frictionless  
future impact  
financial  
institutions  
that provide  
payment  
solutions?**

<sup>1</sup> Lee, Gary (2017, October 17). Why 90 Percent of Sales Still Happen in Brick and Mortar Stores. Retail Technology Review. Retrieved April 25, 2018 from <https://www.retailtechnologyreview.com/articles/2017/10/17/why-90-percent-of-sales-still-happen-in-brick-and-mortar-stores>.

Frictionless payments are defined as payment experiences that allow consumers to make seamless, convenient transactions by removing pain points such as waiting in line, swiping cards, providing signatures, entering PINs, or even having to check out at all. According to a recent study by Visa, 44% of consumers said they would rather not have to stop at a counter or manually check out when visiting a retail store.

Although the realization of this type of well-developed frictionless payment experience as an everyday reality is still far away, steady advancements in the world of payments driven by consumer preference are pushing closer every day. Companies like Amazon and Starbucks are already changing the way that customers interact with physical retail space by implementing mobile checkout, order ahead options, and even a “checkout-free” experience.

What are the implications of the emerging world of frictionless payments for organizations that provide payments solutions to customers and merchants? Financial institutions may recognize the increasing importance of offering frictionless payment options to customers, but may be intimidated by the technology-driven investment needed to do so. What does the frictionless payments market look like today and in the future, and how can financial

institutions offer these desired payments solutions to customers and merchants?

## Mobile Wallets: A Step Toward Frictionless Payments

Mobile wallets are a frictionless payment option that allow customers to make payments without using a physical credit card by storing card information securely on a smartphone. The global mobile payments market is estimated to reach nearly \$3.4 billion by 2022, with a compound annual growth rate of 33.4% from 2016 to 2022.<sup>5</sup>

The most widely used merchant-agnostic mobile wallet is Apple Pay. Of adults in the U.S. who have a smartphone compatible with mobile wallets, 13% have set up and used Apple Pay at least once. Of this same segment, 1% have set up and used Google Pay at least once, and 1% have set up and used Samsung Pay at least once.<sup>6</sup>

Mobile wallet adoption is increasing, although at a slower rate than expected.<sup>7</sup> A Juniper research study predicts that nearly 2.1 billion consumers worldwide will use a mobile wallet to make a payment or send money in 2019, which is up over 30% from the recorded 1.6 billion consumers at the end of 2017.

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2 Koide, Chris (2017, August 11). Uber, Amazon Go Herald the Next Generation of “Frictionless” Payments. PaymentsSource. Retrieved May 5, 2018 from <https://www.paymentsource.com/opinion/uber-amazon-go-herald-the-next-generation-of-frictionless-payments>.

3 Arumugam, Avin. Paying with Wearables: The Next Big Thing in IoT. Visa. Retrieved April 11, 2018 from <https://usa.visa.com/visa-everywhere/innovation/wearable-payment-technology.html>.

4 Frictionless Payments: Your Body is Replacing Your Credit Card. (2016, October 25). Isobar Global Blog. Retrieved April 11, 2018 from <https://medium.com/isobar-global-blog/frictionless-payments-your-body-is-replacing-your-credit-card-e2bb547efb74>.

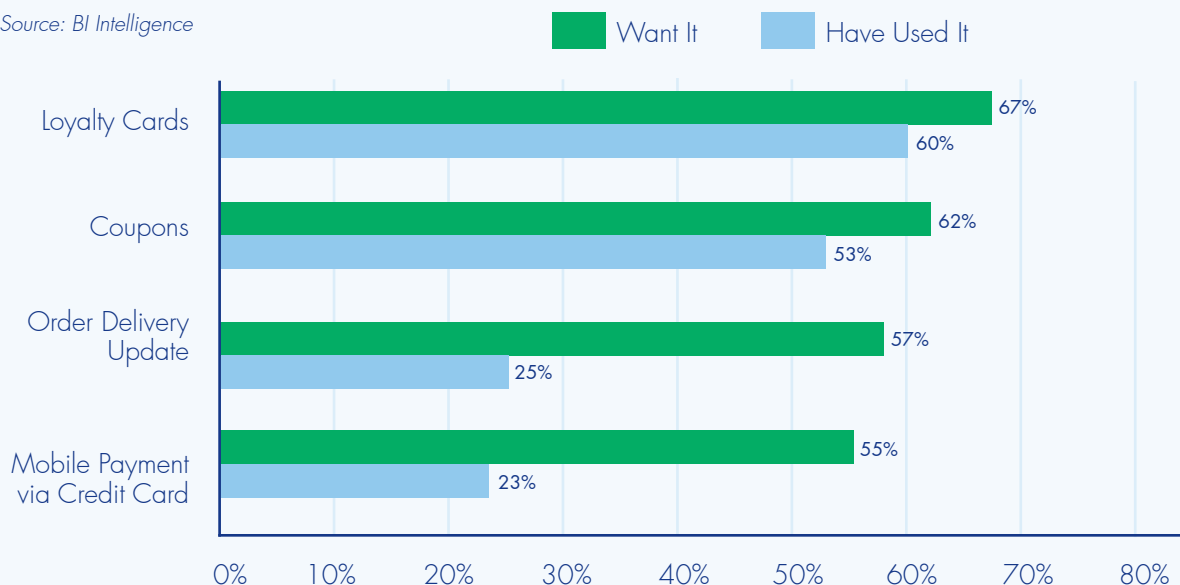
5 Dove, Jackie (2018, January 17). Mobile Wallets: Apple Pay vs Samsung Pay vs Google Pay. Tom’s Guide. Retrieved April 5, 2018 from <https://www.tomsguide.com/us/mobile-wallet-guide,news-20666.html>.

6 2018 Mobile Wallet Adoption Data. PYMNTS.com. Retrieved April 5, 2018 from <https://www.pymnts.com/mobile-wallet-adoption-statistics>.

7 Four Factors Contributing to Slow Mobile Payment Adoption Rates in the U.S. Retail Touch Points. (2017, December 5). Retrieved April 5, 2018 from <https://www.retailtouchpoints.com/features/executive-viewpoints/four-factors-contributing-to-slow-mobile-payment-adoption-rates-in-the-u.s>.

## Top Features Consumers Desire in Mobile Wallets

Source: BI Intelligence



Compared to the merchant-agnostic mobile wallets, merchant-specific mobile wallets are seeing increased usage and traction because of the added value they provide consumers.<sup>8</sup> The Starbucks app, which is used in 30% of transactions in all U.S. Starbucks stores, enables mobile payments at checkout by pre-loading dollars from a credit card to the app. Customers also have the option to order ahead of time via the app and have their order ready when they arrive at the store, and they are automatically granted rewards points for each purchase made through the app.<sup>9</sup> It is predicted that Walmart Pay, another major merchant payment app which allows users to hunt for deals as well as make payments, will overtake Apple Pay in number of active users by the end of 2018.

Speculation as to why adoption of mobile wallets has been slower than expected includes perceived lack of security by consumers, inconsistency of terminal capability, and the fact that consumer behavior is still not primed to the possibility of mobile payments.<sup>10</sup>



<sup>8</sup> Halzack, Sarah (2017, November 9). Starbucks and Walmart are Outdoing Apple and Google in Mobile Pay. Financial Post. Retrieved April 25, 2018 from <http://business.financialpost.com/technology/starbucks-and-wal-mart-are-outdoing-apple-and-google-in-mobile-pay>.

<sup>9</sup> Has Starbucks Lost Its Mobile (Order Ahead) Mojo? (2018, February 8). PYMNTS.com. Retrieved May 10, 2018 from <https://www.pymnts.com/news/mobile-payments/2018/starbucks-earnings-mobile-ordering-digital-payments>.

<sup>10</sup> Four Factors Contributing to Slow Mobile Payment Adoption Rates in the U.S. (2017, December 5). Retail Touch Points. Retrieved April 5, 2018 from <https://www.retailtouchpoints.com/features/executive-viewpoints/four-factors-contributing-to-slow-mobile-payment-adoption-rates-in-the-u-s>.

## Wearables: A Leap Toward Frictionless Payments

Wearables, another frictionless payments option, are smart devices worn on the body including smartwatches, body-worn cameras, Bluetooth headsets, and head-mount displays. Payment volume via wearables is expected to grow to \$501.1 billion by 2020.<sup>11</sup>

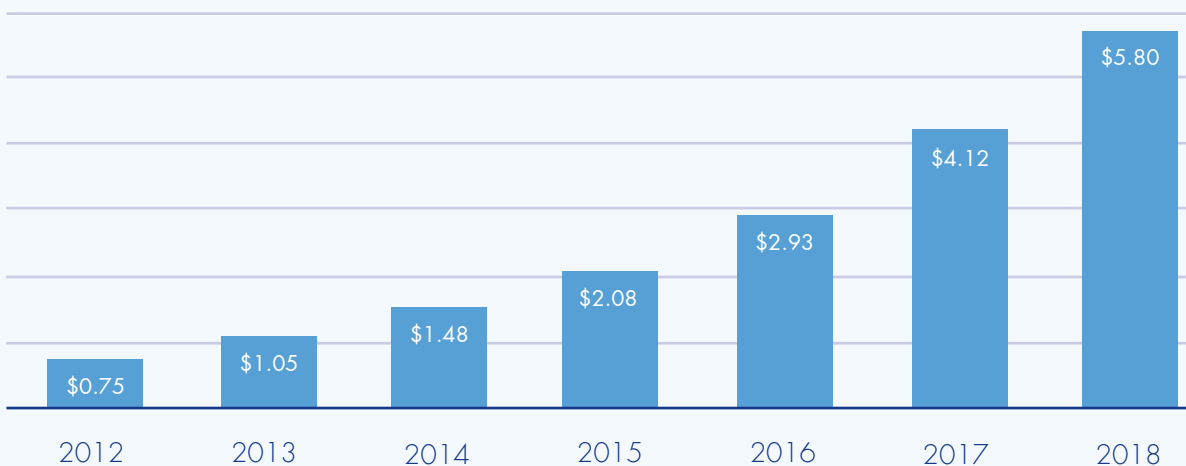
The most traction gained for frictionless payments in the wearables space is seen in the smartwatch category. Most major manufacturers have enabled these devices to make payments via near-field communication technology, which allows devices to send information without going through multiple

steps to set up a connection.<sup>12</sup> Smartwatches were largely popularized by the Apple Watch, which was first offered in 2014 and allowed users to pay via connection to an iPhone with Apple Pay.

Apple currently holds the most market share of smartwatches, with approximately 16 million watches sold last year. Watches running Google's Android software are payment-enabled via Google Pay and sold just under 5 million units in 2017. Fitness tracker company Fitbit released its first smartwatch in 2017, which enabled payments via Visa's Token Service.<sup>13</sup> By 2021, Gartner expects the sales of smartwatches will total nearly 81 million units, making up 16% of total wearable device sales.<sup>14</sup>

### Forecasted Value of the Global Wearable Devices Market from 2012 – 2018 (in billions U.S. dollars)

Source: Transparency Market Data



11 Arumugam, Avin. Paying with Wearables: The Next Big Thing in IoT. Visa. Retrieved April 11, 2018 from <https://usa.visa.com/visa-everywhere/innovation/wearable-payment-technology.html>.

12 Near Field Communication. (2017). NFC. Retrieved May 10, 2018 from <http://nearfieldcommunication.org>.

13 Pressman, Aaron. (2018, February 22). Smartwatch Sales are About to Take Off—Finally. Fortune. Retrieved May 10, 2018 from <http://fortune.com/2018/02/22/smartwatch-apple-fitbit>.

14 Lomas, Natasha (2017, August 24). Global Wearables Market to Grow 17% in 2017, 310M devices sold, \$30.5BN Revenue: Gartner. Tech Crunch. Retrieved April 5, 2018 from <https://techcrunch.com/2017/08/24/global-wearables-market-to-grow-17-in-2017-310m-devices-sold-30-5bn-revenue-gartner>.

Though the market is now in its infancy, in the future, payments-enabled wearables could provide maximum convenience and value to consumers by functioning as a sophisticated digital identity that functions as a credit card, key chain, driver's license, and more, all in one.<sup>15</sup>

## Invisible Payments: Frictionless Payments Realized

Invisible payments integrate payments into the internet of things by removing all visible indication of a payment taking place. The internet of things represents all the connected devices on a network that can communicate with each other to complete tasks, including making payments. A study published by Juniper Research found that Amazon Go and other "invisible payment" technologies are predicted to process over \$78 billion in transactions by 2020.<sup>16</sup>

Unlike mobile apps and wearables, invisible payments require no device to complete a payment. Instead, a customer's identifying features (e.g., face, voice, etc.) are linked to his or her bank account, which is charged when the customer leaves the retail location.

An example of frictionless payments in action is Amazon Go, which is a grocery store from e-retailer Amazon that offers a "checkout-free" shopping experience by tracking the products customers take off the shelf and then charging their Amazon accounts when they walk out the door with those products.<sup>17</sup> This is made possible by a host of cameras and sensors that follow shoppers.<sup>18</sup> Customers at the Amazon Go store have reported that the experience feels like shoplifting, indicating that consumer education may be necessary for this type of technology to be accepted and used regularly by the general public.<sup>19</sup>

Other examples of emerging invisible payments include:

- Chinese e-merchant Alibaba's "pay-by-selfie" feature launched in 2015. This technology capitalized on a common activity, taking selfies, to enable easy, convenient payments.<sup>20</sup>
- A smart mirror created by the company Isobar Nowlab, which allows users to pay for clothing as they try it on in the dressing room by scanning their face which is linked to their bank card.<sup>21</sup>

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15 Wearable Tech: A Growing Payment Opportunity. (2017, July). Smart Payments Association. Retrieved May 10, 2018 from <https://www.smartpaymentassociation.com/index.php/liste-documents/public-resources/white-papers/612-wearable-tech-growing-payment-opportunity-spa-july-17/file>.

16 Smart Store Technologies to Generate Over \$78 Billion in Annual Transaction Revenue by 2022. (2017, October 10). Juniper Research. Retrieved May 5, 2018 from [https://www.juniperresearch.com/press/press-releases/smart-store-technologies-to-generate-over-\\$78-bn](https://www.juniperresearch.com/press/press-releases/smart-store-technologies-to-generate-over-$78-bn).

17 Yeo, Isabel (2017, October 22). How Frictionless Payments are Changing Consumers' Lifestyles. Asean Today. Retrieved April 5, 2018 from <https://www.aseantoday.com/2017/10/how-frictionless-payments-are-changing-consumers-lifestyle/>

18 Rainey, Clint (2018, January 23). One Person Already Accidentally Shoplifted at Amazon's New Cashierless Grocery Store. Grub Street. Retrieved April 25, 2018 from <http://www.grubstreet.com/2018/01/shoplifting-amazon-go-grocery-store.html>.

19 Ross, Dave (2018, January 24). I Felt Like a Shoplifter inside Amazon Go. Kiro Radio. Retrieved May 10, 2018 from <http://mynorthwest.com/878757/shoplifter-inside-amazon-go/>.

20 Gallagher, Fergal (2015, March 19). Alibaba's Jack Ma Introduces "Pay-With-Selfie" Technology. Tech Times. Retrieved May 10, 2018 from <http://www.techtimes.com/articles/40857/20150319/alibabas-jack-ma-demos-pay-selfie-technology.htm>.

21 Frictionless Payments: Your Body is Replacing Your Credit Card. (2016, October 25). Isobar Global Blog. Retrieved April 11, 2018 from <https://medium.com/isobar-global-blog/frictionless-payments-your-body-is-replacing-your-credit-card-e2bb547efb74>.

These invisible payments represent what all in-person retail shopping may one day be like. But what small steps are being taken today to move in that direction? One solution that some merchants are embracing to introduce frictionless elements into their space is mobile checkout apps, which allow users to scan items using their smartphone and avoid the checkout line. The number of consumers using checkout apps is predicted to increase from just under 4 million in 2017 to over 30 million in 2022.<sup>22</sup>

## Partnering with Elan Advisory Services

With creating a customer-centric experience for merchants and customers as the central goal, it is imperative for financial institutions to partner with a payments solutions provider that is invested in forward-thinking solutions.

The ever-evolving payments industry requires significant technological capabilities to keep up with competitors, and capture and maintain customer interest. Choosing the right payments partner can allow your financial institution to offer those technologies to your customers with little or no upfront or on-going costs.

Through a partnership with Elan Advisory Services, your financial institution will have access to Elavon Merchant Services which allows you to offer a full range of payment processing solutions to your customers.

## Elavon Merchant Services Solution Set

### Processing Solutions

VISA	Mastercard
AMEX	Discover
Diners	UnionPay
China	JCB

### Specialized Solutions

Fanfare  
eCommerce Solutions  
Dynamic Currency Conversion

### Gateway Solutions

Fusebox

### Delivering Solutions

Tablet POS Solutions  
Mobile Technology  
POS Terminals and Peripherals  
Poynt Smart Terminals

### Reporting Solutions

Payments Insider  
Online Lead Tracking

### Security Solutions

Elavon's Safe-T Suite  
PCI Program w/ Data Breach Protection

22 Smart Store Technologies to Generate Over \$78 Billion in Annual Transaction Revenue by 2022. (2017, October 10). Juniper Research. Retrieved May 5, 2018 from [https://www.juniperresearch.com/press/press-releases/smart-store-technologies-to-generate-over-\\$78-bn](https://www.juniperresearch.com/press/press-releases/smart-store-technologies-to-generate-over-$78-bn).





Elavon:

- Maintains 500+ global financial partnerships
- Enables \$300 billion in commerce per year
- Safely transmits data 3.2 billion times a year
- Partners with 1.3 million customers
- Serves 20,000 financial institution branches

Partnering with Elavon through Elan Advisory Services allows your financial institution to earn competitive non-interest income. Throughout the process, Elavon performs and owns all risk, underwriting, and fraud management, and also provides co-branding marketing, sales support, and training tools and resources.

Partnering with Elan and Elavon to offer merchant solutions to your customers can drive customer engagement in your financial institution. In fact, merchants who use Elavon's payment solutions are two times as likely to get a business card with your institution than those with only a checking account.

Elan can shoulder the challenges of offering frictionless payment options (such as payment acceptance via mobile wallets and wearables) including high technology costs and helping to protect against fraud. By partnering with Elan Advisory Services, your financial institution can mitigate these risks and still provide customers and merchants with a seamless payments experience.

## About Elan Advisory Services

Elan Advisory Services provides strategic consultation to ensure your financial institution has the right products and services to compete in your market. Through Elan Advisory Services' internal partners, we deliver best-in-class products and exceptional service to more than 3,000 financial institutions across the United States. With solutions such as end-to-end credit card and debit processing, ATM managed services, mortgage services, and merchant processing, Elan Advisory Services can help your financial institution increase revenue and efficiencies. For more information, visit [www.elanadvisoryservices.com](http://www.elanadvisoryservices.com).

## About Elavon

Elavon is wholly owned by U.S. Bank, the fifth-largest bank in the United States, and provides end-to-end payment processing solutions and services to more than 1.3 million customers in the United States, Europe, Canada, Mexico, and Puerto Rico. As the leading provider for airlines and a top five provider in hospitality, healthcare, retail, and public sector/education, Elavon's innovative payment solutions are designed to solve pain points for businesses from small to enterprise-sized. For more information, visit [www.elavon.com](http://www.elavon.com).

