Study of Mobile Banking & Payments

Mobile Wallet Report

March 2017
Mobile payments and wallets are hot topics in the payments space, with a variety of providers competing for consumers’ attention.

**Mobile Payments Vs. Mobile Wallets**

- A **mobile payment** is any type of payment made using a mobile device. Examples include bill pay, in-app/online purchases, in-store purchases, and P2P transfers.

- A **mobile wallet** is an app that stores payment cards, tickets, loyalty cards, receipts, vouchers and other items that might be found in a conventional wallet.

**Study Methodology***

- The primary focus of this study is on wallet apps that enable consumers to make in-app and in-store purchases.

- Findings are based on results from a **January 2017** survey that sampled **1,514 U.S. consumers** over the age of 18 who meet the following criteria:
  - Own a smart phone; and
  - Have a checking account, debit card, and/or credit card.

*Notable Mobile Wallets*

* *A more detailed overview of the methodology is included in the Appendix.*
Mobile wallets have proliferated over the past year, with issuers introducing proprietary solutions to compete with Apple, Samsung, and Android Pay.

**Timeline of Mobile Wallet Applications**

- **First Study of Mobile Banking & Payments**: May 2015
- **Second Study of Mobile Banking & Payments**: Dec 2015
- **Third Study of Mobile Banking & Payments**: June 2016
- **Study of Mobile Banking & Payments: Mobile Wallet Report**: Jan 2017

First Annapolis began tracking trends in consumer adoption of mobile payments in May 2015, shortly after the launch of Apple Pay.
Two thirds of respondents have made a mobile payment, while roughly two out of five have a mobile wallet—but only a handful are frequent Pay users.

**January 2017 - Mobile Payments and Mobile Wallet Adoption**

*N = 1,514*

- **Mobile Payment Users** are respondents that indicated making any type of payment using their mobile devices within the past year.
- **Mobile Wallet Owners** are respondents that indicated enrolling in and/or having a mobile wallet application, including but not limited to Apple/Android/Samsung Pay, Chase Pay, the Starbucks App, etc.
- **Pay Owners** are respondents that indicated enrollment in Apple, Android, and/or Samsung Pay.
- **Frequent Pay Users** are those who indicated making payments once a week or more using a Pay service.
Study results highlight important trends in mobile payments adoption, some of which trends were as expected; others surprised us.

Observations

1. **Adoption is mass-market**
   - 64% of respondents *made a mobile payment* in the last year.
     - More than 85% of those *under 35* have made a mobile payment;
     - So have 36% of those *over 65*.

2. **Adoption has plateaued**
   - Mobile payment adoption levels increased dramatically over the past 18 months, but have *not changed significantly* during the past six.
   - 39% of respondents *have a mobile wallet*; of those, 49% are enrolled in a *Pay*.
   - Penetration and activation levels for Apple Pay have leveled off.

3. **Frequency of use is increasing**
   - 32% of *Pays owners* are *‘frequent’ users*—up from ~23% six months ago.
   - Most Pays users report using their Pay *more often now* than they used to.
   - Satisfaction with mobile wallets apps is high, and 36% of mobile wallet users would use mobile payments for *“almost all”* of their purchases, *if they could*.

4. **Consumers want bank solutions**
   - Consumers want *one payment app* on their phone—and they want *their bank* to provide it.
Two-thirds of consumers have made a payment using their mobile device within the past year, but, as expected, there is significant variation among age groups.

**Mobile Payments Usage by Age**

“Have you made a payment using your mobile device any time within the last 12 months?”

- **As Expected**: Usage rates for Millennials are high: more than 85% of respondents under 35 have made a mobile payment.
- **Surprising**: While usage levels are higher among younger consumers, more than one-third of respondents 65 or older have made a mobile payment.
There has been surprisingly little change in reported adoption levels over the past six months, for any category of mobile payment.

**Mobile Payments by Type**

“Which of the following types of payments have you made using your mobile phone within the last 12 months?”

**Respondents Ages 18 – 54**

As expected, the top reasons cited for not using mobile payments were:

1. Security concerns
2. No need/perceived advantage

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**Jan 2017 All Ages**

<table>
<thead>
<tr>
<th>Made a Mobile Payment</th>
<th>Paid a bill</th>
<th>Purchase in-app or online</th>
<th>Received loyalty points</th>
<th>Sent/received money (P2P)</th>
<th>Paid in-store</th>
<th>Paid for parking/taxi/transit</th>
<th>Withdrew money from ATM</th>
<th>Paid by text message</th>
<th>Sent money internationally</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 2017 All Ages</td>
<td>64%</td>
<td>49%</td>
<td>44%</td>
<td>26%</td>
<td>23%</td>
<td>19%</td>
<td>12%</td>
<td>6%</td>
<td>3%</td>
</tr>
</tbody>
</table>

*To normalize time series data, the graph only includes respondents between age 18 and 54.*
39% of respondents say they have a mobile wallet on their phone, while 31% do not own a mobile wallet and are uninterested in the concept.

**Mobile Wallet Penetration & Interest**

“Do you currently have a mobile wallet app on your phone?” / “How attractive do you find the idea of a mobile wallet?”

- **As Expected:** Younger respondents are more likely to have a mobile wallet.
- **As Expected:** Older non-wallet owners are more likely to have no interest in a mobile wallet.
- **Surprising:** 70% of consumers have made up their mind about mobile wallets, and that figure is relatively constant across age segments.
The Pays are the most frequently cited wallet type, cited by 49% of wallet owners, with Apple Pay being the most common.

**Wallet Ownership by Type**

<table>
<thead>
<tr>
<th>Type</th>
<th>% of Wallet Owners (N=583)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pays</td>
<td>49%</td>
</tr>
<tr>
<td>Merchant</td>
<td>39%</td>
</tr>
<tr>
<td>Issuer</td>
<td>28%</td>
</tr>
<tr>
<td>Non-Payment Wallet</td>
<td>27%</td>
</tr>
</tbody>
</table>

**As Expected**: 42% of those with a Pay or Issuer wallet also have at least one merchant wallet.
Apple Pay has the highest penetration, activation, and usage (PAU) metrics, as expected with an 11-month head start.

**Current Pay Metrics**
% of Compatible Devices

**Surprising:**
Apple Pay has achieved more than 30% penetration of its compatible device base just over two years from launch; most new payment technologies have taken longer to reach similar levels.

**As Expected:**
Samsung Pay outperforms Android Pay, likely due to higher merchant acceptance with its MST technology, as well as consumer incentives.

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<thead>
<tr>
<th></th>
<th>P</th>
<th>A</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple Pay</td>
<td>34%</td>
<td>27%</td>
<td>8%</td>
</tr>
<tr>
<td>Samsung Pay</td>
<td>14%</td>
<td>10%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Penetration – % enrolled in Pay  
Activation – % have used Pay  
Usage – % ‘frequent’ users (use 1/week or more)
Apple Pay’s user base appears to be stabilizing in the short-term, as growth of compatible devices slows and penetration and activation metrics level off.

**Apple Pay Compatible Devices**

% of all iPhones

<table>
<thead>
<tr>
<th>Year</th>
<th>% of All iPhones</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 2015</td>
<td>35%</td>
</tr>
<tr>
<td>Dec 2015</td>
<td>51%</td>
</tr>
<tr>
<td>Jun 2016</td>
<td>74%</td>
</tr>
<tr>
<td>Jan 2017</td>
<td>74%</td>
</tr>
</tbody>
</table>

**Apple Pay User Base**

% of all iPhones

<table>
<thead>
<tr>
<th>Year</th>
<th>% of All iPhones</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 2015</td>
<td>8%</td>
</tr>
<tr>
<td>Dec. 2015</td>
<td>10%</td>
</tr>
<tr>
<td>Jun. 2016</td>
<td>23%</td>
</tr>
<tr>
<td>Jan. 2017</td>
<td>24%</td>
</tr>
</tbody>
</table>

**Apple Pay Users**

% of compatible iPhones

<table>
<thead>
<tr>
<th>Year</th>
<th>% of Compatible Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 2015</td>
<td>22%</td>
</tr>
<tr>
<td>Dec. 2015</td>
<td>20%</td>
</tr>
<tr>
<td>Jun. 2016</td>
<td>31%</td>
</tr>
<tr>
<td>Jan. 2017</td>
<td>32%</td>
</tr>
</tbody>
</table>

*Representative device compatibility not captured in earliest studies; 2015 data from ComScore.com.

Longitudinal data based on consumers 18-54
Apple Pay usage is increasing; as expected, Samsung and Android Pay have achieved higher rates of frequent users more quickly than Apple Pay.

**Apple Pay ‘Frequent Users’**
*Use Apple Pay 1/week or More*

- **19%** in May 2015
- **15%** in Dec. 2015
- **31%** in Jan. 2017

**Post-Launch Comparison***
*Use Pay 1/week or More*

- **Apple Pay**
  - **19%** in 9 months post-launch
  - **15%** in 15 months post-launch

- **Android Pay**
  - **19%** in 9 months post-launch

- **Samsung Pay**
  - **22%** in 9 months post-launch
  - **24%** in 15 months post-launch


User satisfaction levels are, and remain, almost universally high across all three Pays.

*Longitudinal data based on consumers 18-54*
15% of respondents indicated they have a merchant payment solution, with Starbucks cited the most frequently.

**Overall Merchant Wallet Penetration**
“Do you currently have a merchant wallet on your phone?”
(N = 1,514)

- **Yes**: 15%
- **No**: 82%
- **Not Sure**: 3%

The average merchant wallet user has 1.6 merchant wallet applications.

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**Merchant Wallet Penetration by App**
“Please indicate which of the following merchant wallet apps you have.”
(N = 229)

- **Starbucks App**: 62%
- **Walmart Pay**: 27%
- **Dunkin’ Donuts App**: 26%
- **Chick-fil-A App**: 12%
- **CVS Pay**: 11%
- **Subway App**: 9%
- **Sam’s Club Scan & Go**: 7%
- **Other**: 6%

**Surprising**: 67% of merchant app users say they use the wallet almost always when shopping at the merchant.

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**As Expected**: More than 75% of respondents indicated they receive rewards as part of mobile wallet usage; two in five respondents would not have downloaded the app without rewards.

*Includes Panera, Walgreens, and Kohl’s, among others.

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Less than **one in ten** respondents indicated they have an issuer wallet; Chase and Capital One were the most frequently cited.

**Overall Issuer Wallet Penetration**

“Do you currently have an issuer wallet on your phone?”

(N = 1,514)

- **No** 86%
- **Yes** 9%
- **Not Sure** 5%

**Issuer Wallet Penetration by App**

“Please indicate which of the following issuer wallet apps is your primary app.”

(N = 130)

- **Chase Pay** 31%
- **Capital One Wallet** 28%
- **Wells Fargo Wallet** 20%
- **Masterpass** 11%
- **Other** 9%

*Among issuer wallet users, 96% have loaded a card into the wallet; of those, 90% have made a purchase using the wallet.*

*Includes various credit unions, American Express, Arvest Bank, and BBVA Compass.*
Most consumers (65%) want one payment app on their phone, and most would prefer their bank to be the app provider.

### Wallet Preferences

*Of those that prefer a single wallet:

“If you were to choose one provider of a mobile wallet app, which would be your preferred provider?”

<table>
<thead>
<tr>
<th></th>
<th>Existing mobile wallet users (N=281)</th>
<th>Interested non-users (N=396)</th>
<th>Overall (N = 677)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bank</strong></td>
<td>38%</td>
<td>55%</td>
<td>48%</td>
</tr>
<tr>
<td><strong>Card Brand</strong></td>
<td>12%</td>
<td>18%</td>
<td>16%</td>
</tr>
<tr>
<td><strong>PayPal</strong></td>
<td>9%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Traditional Providers</strong></td>
<td>59%</td>
<td>83%</td>
<td>74%</td>
</tr>
<tr>
<td><strong>Apple</strong></td>
<td>22%</td>
<td>6%</td>
<td>13%</td>
</tr>
<tr>
<td><strong>Google</strong></td>
<td>5%</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Samsung</strong></td>
<td>5%</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>9%</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Non-Traditional Providers</strong></td>
<td>41%</td>
<td>17%</td>
<td>26%</td>
</tr>
</tbody>
</table>

*Includes Amazon, Facebook, Walmart, Starbucks, and wireless provider.

**As expected:** While banks are the preferred provider overall, that preference is most pronounced among those who have not yet adopted a mobile wallet.
Conclusion

• Consumers are not yet ready to leave home without their physical wallet.

• The user base for current mobile wallet solutions may be stabilizing, at least in the short-term.

• Growth has been/will be slower than anticipated, but mobile wallet payments are poised for growth.
  – Consumer use is increasing and satisfaction levels remain high.
  – EMV migration is increasing merchant acceptance, and accelerated transaction times relative to chip-based POS transactions will likely create a customer experience advantage.
  – Penetration will increase naturally as generations age.

• The Pays have an established user base and expanded acceptance has spurred increased use; further expansions of their acceptance footprint will be critical to long-term success.

• Many consumers are supplementing the Pays or an issuer wallet with individual merchant apps—but most would prefer to have one payment app.

• There is a demand for issuer-provided wallets with ubiquitous acceptance.
Study findings are based on survey responses from 1,514 banked smart phone users in January 2017.

**Study Methodology**

- The online consumer survey was administered in January 2017 and designed to explore consumer’s usage and attitudes towards mobile payments and wallets.
  - Consumers’ mobile payments behavior and attitudes
  - Respondents’ ongoing adoption and use of the “Pays”, merchant wallets and issuer wallets
- Findings are based on a sample of **1,514 U.S. consumers** over the age of 18 who meet the following criteria:
  - Own a smart phone; and
  - Have a checking account, debit card, and/or credit card.
- Sample demographics are generally in-line with U.S. census distributions; survey results for the overall sample have a margin of error of +/- 2.5% at a 95% confidence level.
- Previous studies on Mobile Banking and Payments were conducted in June 2016, December 2015, and May 2015 and were based on responses from consumers age 18 to 54; longitudinal comparisons have been age-adjusted.

**Device Type**

“Which of the following devices do you own?”

\[N = 1,514\]

- iPhone 6, 6s, 7, or SE 31%
- Samsung Galaxy S6, S7, or Note5 27%
- Other Android 23%
- Other Apple 12%
- Other smartphone 5%
- Blackberry <0.1%
- Microsoft 2%

78% of respondents have a device that is compatible with Apple Pay, Samsung Pay, and/or Android Pay.

*This report focuses primarily on mobile wallet payments; a separate report on mobile banking and payments is planned for Q2.*