



MEMO to Retailers

From: Sobel & Co.

Re: The Buzz about Mobile Payments: A Synopsis of the Current Situation



Technology is changing everything. We all know this, but who would ever dream that we could pay for goods and services in a secure manner, quickly and easily, using just our smart phones? It sounds more like a plot for a science fiction movie than the reality of commerce in the 21st century, but it is a real world trend and it is gaining momentum.

What are “mobile” payments?

While many of you may have seen the news flashes regarding mobile payments since the October rollout of Apple Pay, there can still be some confusion about what this new technology is about. Simply put, the most common definition of mobile payment is: “A method of paying for goods and services with a mobile phone instead of with cash, checks or credit cards.” There are different platforms that accomplish mobile payments including near field communication (NFC), direct mobile billing, SMS-based transactional payments, and mobile web payments.

One of the most popular front runners making headlines recently in this area is the aforementioned Apple Pay – a service provided by Apple, Inc.

What ‘s hindering the implementation of mobile payments in the U.S.?

Although other countries around the world have enthusiastically embraced mobile pay technology, so far it is experiencing significant resistance in the United States.

In the Far East, mobile devices are continuously being used to pay for transactions involving everything from retail shops to movie theaters to train stations and parking meters. In fact, when Hong Kong introduced a “stored value solution,” issuing a travel card called Octopus that would allow consumers to use their mobile devices as payment solutions within the mass transit system, it was met with great success. Since its inception in 1997, the response to Octopus has been staggering. Hong Kong reports that the actual number of Octopus cards outstrips the local population! As a result of this popularity, they are now expanding the cards capability beyond mass transit to include usage at many similar micro-payment venues like fast food restaurants that benefit from high transaction velocity in a mass market.



For years U.S. analysts have been predicting that paying for goods and services with smartphones was going to be the next major trend in technology. However, in the United States there seem to be several reasons that consumers and merchants are dragging their heels.

Many of the experts and technical literature on the subject note that one of the greatest challenges the industry faces is that the key players (mobile carriers, financial institutions and merchants) do not share common interests and as such, each is vying to maintain their own profitability. As a result of the tension between them, the practical application of mobile payment services is lagging. "The sharing of revenue and ownership of the customer constitute the widest part of the strategic chasm that separates key players," is the assessment included in Deloitte's study entitled, *Cell me the money: Unlocking the value in the mobile payment ecosystem*. The author of the study (based on the survey, which closed in 2009 and was published in 2011) is Divakar Goswami, Technology, Media & Telecommunications - Deloitte Research.

Additionally, many of those who are not ready to adopt the technology are fueling the fire by raising



doubts, saying that the actual "inconvenience" of using credit cards is being overstated by those who have a vested interest in advancing a mobile payment platform. At the same time, there are practical concerns being raised by consumers, including security issues as well as the realistic fear that a dead cell phone could leave them empty-handed at the check-out counter. But it is the overarching concern

regarding personal data security that will continue to plague consumers until they are satisfied that their private data is truly private.

Despite the consumer's security and dependability concerns, as they conducted their study, the four greatest barriers that Deloitte discovered are:

- A lack of consumer knowledge
- A lack of consumer demand
- Competing platforms in a fragmented market
- The absence of revenue sharing agreements between critical players in the value chain

But there is hope for overcoming these barriers. There are a number of different circumstances that could boost the adoption of mobile payments.

Financial institutions have already convinced customers to comfortably use a mobile banking option – making deposits, transfers and conducting bill paying from their mobile devices. If they put their marketing budgets to work on the mobile payment process, including launching a large scale national campaign, they could spur adoption. With consumer demand so closely linked to consumer awareness, educating the public will be the first step towards execution.



In an alternative scenario, if payment networks like Apple Pay can offer invitingly lower transaction fees to retail merchants, they could find a way to compete with the financial institutions, gaining the interest and loyalty of the retailers. This would be especially attractive to retailers if they can't gain credibility with consumers because of their own competing version lacks functionality. (A word of caution though: if this scenario took place it would mean the networks and retailers would be competing with the major banks. This is highly unlikely from Apple's perspective since Apple Pay is currently successfully working in cooperation with Visa's Pay Wave, Mastercards' PayPass, and American Express' Express Pay. As a result, they would not be likely to support this option).

Thirdly, financial institutions could also try to 'go it alone' by providing mobile payment services to their customers without involving mobile carriers. By eliminating the mobile carriers, they could potentially develop a deeply loyal relationship directly with their customers.

Finally, analysts say there could be a hybrid scenario that evolves if the financial institutions and the mobile carriers cooperate to provide mobile payment solutions with a credit or debit card embedded as an app in the mobile device. This option spreads the risks and rewards across both parties.

No one doubts the future power of the platform – the real battle lines are being drawn in terms of who and how to leverage the technology for the most gain! Each of the scenarios described above has plusses and minuses for all those involved, including everything from combining forces to flying solo. The open federation model, which allows all the players from different industries to come together with a common vision, employing mutually beneficial business models, seems to be one approach being considered - although according to Deloitte's observation, "There are currently no signs of an open federation alliance that can create a mobile payment ecosystem across the United States."

How does the mobile payment process work?

The 7 S's Required for Success in Mobile Payments



Consumers who are comfortable with technology and want the convenience and security it provides are excited by the possibilities and the ease with which mobile payment can, and should, perform.

Early adopters appreciate the security of the transaction. Instead of handing over their credit or debit cards (with the account numbers publically visible and stored in the retailer's systems) they can use an assigned device Account Number that is encrypted and securely stored in a dedicated chip on their smart phone. This is the process currently being used by Apple Pay in conjunction with the iPhone 6, iPad Air 2, iPad Mini 3 or the new Apple watch. These devices wirelessly communicate with point of sale systems sale systems, including Visa's Pay Wave, Mastercards' PayPass and American Express' Express Pay terminals, using a near field communication (NFC) antenna combined with a dedicated chip that stores the



encrypted payment information. This is very similar to the “chip and pin” system used in much of the international world, with the mobile device containing the “chip” component instead of the individual payment card.

NFC allows two autonomously powered devices to wirelessly communicate at short distances. To work as a payment technology, NFC needs to link to a source of funds, such as the user’s bank account or credit card. Credit card information is embedded in the consumer’s mobile handset – in effect, turning the smart phone into a ‘mobile wallet.’ Interestingly, 69% of those surveyed by Deloitte overwhelmingly supported the concept of embedding credit cards within a mobile handset and 57% supported embedding debit cards within mobile handsets.

In this process the credit and debit card numbers are never stored on Apple servers and the actual credit or debit card numbers are never shared by Apple with merchants nor are they transmitted with payment. *A single usage code is generated for each transaction and authenticated by the user. This dynamic security code is designed to keep customer payment information private from the retailer.* Instead of getting customers’ credit card details in case of a data breach, such as the ones that took place recently at Target and Home Depot, hackers and other would-be cyber thieves would only access the virtually worthless transaction code. It is simple to set up and simple to use – features that drive consumer decision making.

While we are not endorsing or recommending Apple Pay or any other mobile payment system, this is a reasonable example of the process and its features.

[Are retailers offering mobile payment as an option?](#)



A survey conducted by Bain & Company of approximately 25,000 consumers in the US and major Western European markets found that many are already shopping in their mobile devices, some using them for payments with the trend spiking over the next few years. Recognizing the early reluctance of consumers, Bain reminds the reader that history shows consumers will embrace technology when the benefits become clear. If this holds true, retailers need to be positioned

and ready for the change that their customers will begin to demand.

A driver in the mobile payment space, Apple Pay, proposes that there will be hundreds of thousands of all size vendors ready to use mobile payments, including well-known retailers like Macy’s, Bloomingdales, Duane Reade, Subway, McDonalds, Target and Whole Foods. Other major big-box retailers are conspicuous in their absence, and the reason for their lack of support of Apple Pay will be discussed.



It is expected that there will be advantages for companies that act quickly to shape their approach and take advantage of the technology. As early movers they are likely to attract the attention of, and possibly capture the loyalty of, the Millennial generation and beyond. These younger customers are now entering the consumer market in full force, shopping more often than ever before. What is also of significance relating to acceptance of mobile payment options is that ongoing research indicates that they are not only frequent shoppers, but they are spending more than twice as much when using digital channels.

It is obvious that the advantages of this technology are numerous for the savvy retailer, whichever version they employ. Whole Foods CIO Jason Buechel was recently quoted as saying that, "The grocery chain's technology initiatives, including ApplePay, will be the key drivers of their future success. "

Are consumers convinced?



United States mobile payment services remain at the very early stages in the development of the process, but there is high expectation that this will catch on as an alternative payment platform, eventually replacing or reducing the wide spread use of credit cards.

To reinforce the potential power about to be unleashed by this new payment trend, Apple CEO Tim Cook announced on October 27, 2014 that more than one million credit cards had already been registered on Apple Pay and it had only been available for three days at that point. Responses are good thus far, according to an Apple spokesperson talking to [Business Insider](#) on October 28, 2014. "The feedback we are getting from customers and retailers about Apple Pay is overwhelmingly positive and enthusiastic. We are working to get as many merchants as possible to support this convenient, secure and private payment option for consumers. Many retailers have already seen the benefits and are delighting their customers at over 220,000 locations."

As John Heggstuen of [Business Insider Intelligence](#) (BI Intelligence) noted, "Customers want a solution that's secure, available where they shop, compatible overseas and available on the devices they love, namely the iPhone." To prove the point, [BI](#) conducted an online survey of 2,305 readers in September 2014. 58% said they would use Apple Pay, 21% said they would mix it with other payment methods and 8% did not believe it was secure. The skewed results may indicate that online survey takers are the most obvious candidates for mobile payment, but the story line is being written and cannot be ignored.

The one factor that seems to stand out as a critical feature in Deloitte's survey is the fact that as early as 2012 when they gathered their data, 39% of the mobile payment users were millennials (age 18-26) with 31% of the users defined as Gen Xers (age 27-39). It is a wake-up call for retailers.



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As the younger generations take their place as powerful market forces, according to GfK's FutureBuy Study, (the GfK Group, established in 1934 as *Gesellschaft für Konsumforschung* - Society for Consumer Research - is Germany's largest market research institute and the fourth largest market research organization in the world) there will be a surge in acceptance of mobile payments. Seen by these consumers as faster, easier and more efficient than other types of transactions, the under-35 years olds will be the ones to push the trend forward.

It is anticipated that mobile payments will catch on with the techno-savvy generations who are looking for convenience, personalized benefits, wide acceptance, broad payment options and credible security. Retailers who want to do business with this demographic have to take heed! Growth projections from industry studies confirm that this is just the beginning of what can become a very steep adoption curve. BI Intelligence suggests that mobile in-store payments will grow from \$1.8 billion in 2013 to \$189 billion in 2018, which represents an exploding compound annual growth rate (CAGR) of 154% over five years! eMarketer's Report, "US Mobile Payments 2014: Updated Forecast and Key Trends Driving Growth" also projects that transaction values in 2015 will double from 2014 to reach \$3.5 billion and will further accelerate through 2016, supporting the supposition that "consumers are bullish on the future of mobile payments."

It appears from all the research that combining the power of Millennials and their predecessors in Gen Ex along with the future power of Gen Z, with their high comfort level and dependence on technology, bodes well for mobile commerce.

Apple Pay versus CurrentC



The spotlight on the retail industry and the various mobile payment contenders is exciting and it has heated up even more since Apple Pay rolled out in October.

Despite the early success from Apple Inc., Rite-Aid and CVS disabled their Apple Pay equipment and they simultaneously blocked Google Wallet, a similar system that was designed for Android users

while other major retailers like Wal-Mart and 7-Eleven remain strong holdouts.

The decision to refuse Apple Pay by these high profile retailers is based on their membership in the Merchant Customer Exchange (MCX), a consortium of the largest US merchants, which happens to be in the midst of beta testing its own mobile payment system, dubbed CurrentC. Unfortunately for MCX, an article recently published in Business Insider reports that CurrentC is more difficult to use than Apple Pay because it only works when connected to the user's checking account while Apple Pay provides more options, allowing the consumer to use credit cards as well. CurrentC will also require scanning a



barcode to make payments, a process which does not seem to stand up to security tests as successfully as the near field communication and other encrypted technology used by Apple Pay and Google Wallet. There has been speculation that because of the concern over consumer security, some credit card companies might not partner with CurrentC – preferring the encrypted credit card number platform used by Apple Pay. CurrentC’s reliance on connecting with consumer checking accounts also comes at a cost to consumers, who lose the benefits they currently enjoy with their credit cards – spending rewards, deferred payment options, and fraud protection.

Although critics continue to argue that the major benefit of MCX’s CurrentC for retailers is that it enables the avoidance of or reduction in swipe fees, MCX offers its own well-stated rebuttal in a blog entitled “Getting Mobile Payments Right.” Here it emphasizes that it is hard at work developing a product that can “provide significant value to consumers and merchants.” MCX members remain staunchly behind CurrentC as Wal-Mart, one of the giants of MCX spoke out stating, “MCX member merchants already collectively serve a majority of Americans every day. MCX’s members believe that *merchants* are in the best position to provide a mobile solution because of their deep insights into their customer’s shopping and buying experiences.”

This can be interpreted to mean that, for now, the retail members of MCX believe that they can respond more effectively to their shoppers’ needs than Apple or Google.

In Conclusion



It is clear that the concept of mobile payments in the United States is in its infancy and its expected success remains positive but unclear. The exciting news is that there are many competing, and compelling, technology solutions and alliances being explored - a situation that should serve the consumers’ interests well. Based on the information currently available, there are obvious obstacles and there are very important advantages - and only time, and the impact of the next generation of users, will tell if this is a gimmick, as some claim, or the next

important technology advance, as others firmly assert.

Citations

Some of the facts, opinions and general information and survey analysis for this summary was gathered from the following sources:

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