Ahead of the Curve

Industry Analysis Mobile Payments

September 30th, 2013

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Overview

Mobile payments have taken many different forms over the past six years and have graduated to the physical point-of-sale

Online Mobile Commerce

Mobile POS (mPOS)

Peer-to-Peer (P2P) Payments

Proximity Payments

2007		2010		2013		2014	
Primary Use Case	Simplified Checkout	Primary Use Case	POS Terminal	Primary Use Case	Check Alternative	Primary Use Case	Mobile Wallet
Primary Industries	eCommerce	Primary Industries	Transit, Dining	Primary Industries	Consumer Services	Primary Industries	Brick-and-Mortar Retail, Dining
Merchant Stakeholders	Wholesalers, Retailers	Merchant Stakeholders	SMBs, Restaurants, QSRs	Merchant Stakeholders	Contractors, Freelancers	Merchant Stakeholders	Retailers, Restaurants, QSRs
Transmission Method	Cloud	Transmission Method	MST	Transmission Method	Cloud	Transmission Method	Cloud, QR codes, NFC, BLE, MST, Ultrasound

- MasterPass
- V.me
- Stripe
- Facebook *

- Square
- Intuit GoPayment
- Groupon Breadcrumb
- iZettle
- mPOWA

- Dwolla
- Venmo (Braintree)
- ClearXchange
- PayPal
- Moven
- mPESA **

- LoopWallet *
- LevelUp
- Clinkle *
- Zapp **
- Isis Wallet *
- Google Wallet
- QkR by Mastercard
- Paydiant (white label)
- MCX *

***Note**: several providers offer solutions in more than one mobile payment grouping*

** Still piloting*

*** Not available in the U.S.*

Overview

" One should not underestimate the smartphone as a tool for payments as mobile becomes a bigger part of our daily lives "

Those of us who have owned a smartphone for five-plus years have probably begun to take some of its features for granted (which has made breaking your smartphone that much more of a traumatic experience). With instant access to web information and communication mediums, it seems as if there isn't a thing the smartphone *can't* do. Below are just a couple features that have (or will) become fundamental to the average smartphone user, all of which have mobile payment applications.

Location-Based Services
It took some time, but software developers finally realized the value of GPS in smartphones through navigation, social media and business searching applications. Brick-and-mortar outlets like Payless and 7-Eleven that push deals to consumers when they are nearby can eventually team up with mobile payment solutions as shoppers obtain and redeem coupons all through a single interface.

E-mail
How convenient is being able to reply to work-related e-mails from your phone on the weekend without having to head into the office? Or, being able to retrieve an order confirmation number while away from your computer. From a payments perspective, e-mail is instrumental in the storage of digital receipts, and in Google Wallet's case, a facilitator of peer-to-peer (P2P) payments.

Camera
Apps like Snapchat and Vine enjoy the sharing capability that smartphones deliver in tandem with the camera. Photos stored on smartphones are easily transferrable through e-mail, text or social media. Banks have pounced on the use of smartphone cameras for remote deposit capture (RDC) and have seen remarkable adoption rates over the past year.

Contact List
Smartphones allow for the storage of a contact's photo, physical address, phone numbers, e-mail addresses and social media accounts, making interaction with that individual substantially easier than through a standard cell phone. As bank account information becomes more secure, it can be encrypted and added to a contact's profile, enabling easy P2P payments and fund transfer.

Near Field Communication (NFC)
No, it's not here yet for the iPhone, but NFC is primed to change the way smartphone users retrieve data at the point of interaction (POI) with local businesses. NFC tags can be deployed most anywhere in commercial districts, with data transmission as simple as a wave of a smartphone. As you can imagine, NFC is primed to support endless solutions for payments at the physical point-of-sale.

Conclusion
The list of payment-enabling smartphone features goes on. The calendar on your smartphone can be employed as a means of scheduling payments while text messaging is yet another facilitator of P2P payments (and also happens to be the primary method of payment in countries like Nigeria).

Provided with these value-add features, one should not underestimate the smartphone as a tool for payments and other consumer activities as mobile becomes a bigger part of our daily lives.

Current State

The Mobile Payments Landscape

" The payments landscape spans across multiple industries, touching telecom providers, banks, card companies and tech firms "

Without even knowing it, we pay a lot of different people through a number of different channels. Over the course of one day, you might mail a check to a utility provider, order a book off of Amazon, charge a cab fare to your credit card and buy a Coke out of a vending machine. Even the soundest spenders are impacted by the surprisingly complex universe of payments. Fortunately, an opportunity exists in mobile technology to revolutionize consumer payments.

With the far-reaching capabilities of today's technology, all of the payments described above can be made through a smartphone. However, achieving such a solution on a large scale is a bit more complicated than plug-and-play. The payments landscape spans across multiple industries, touching telecom providers, banks, card companies, tech firms and others. This crowded space serves as an obvious barrier to widespread adoption of a common mobile payments platform. And after evaluating the value-add of each player, it's not overly intuitive as to who stays and who goes.

Being the traditional gatekeepers of one's paycheck, banks are involved in a consumer's payments by default. If I'm making a monthly rent payment or getting a friend back for movie tickets, those funds are coming straight out of my checking account. Unfortunately, banks have done little to facilitate mobile payments (or 'proximity payments' if made in-store), instead pouring their efforts into broader mobile banking initiatives. Successes in payments have been limited to mobile bill pay and peer-to-peer (P2P) fund transfer that typically involves the cumbersome exchange of bank account information.

Card companies like Visa and Mastercard are experts in payment technology by design and are kicking the tires on mobile payments at the point of sale (POS). The recent debuts of payWave and PayPass have turned your card swipe at 7-Eleven into a contactless tap through the use of Near Field Communication (NFC). Aside from looking cool, this feature won't mean much until it's your phone making the tap instead of your credit card (a tap is as good as a swipe if I have to bring my card either way). While many Android-powered devices boast NFC, Apple is yet to include the technology in the iPhone.

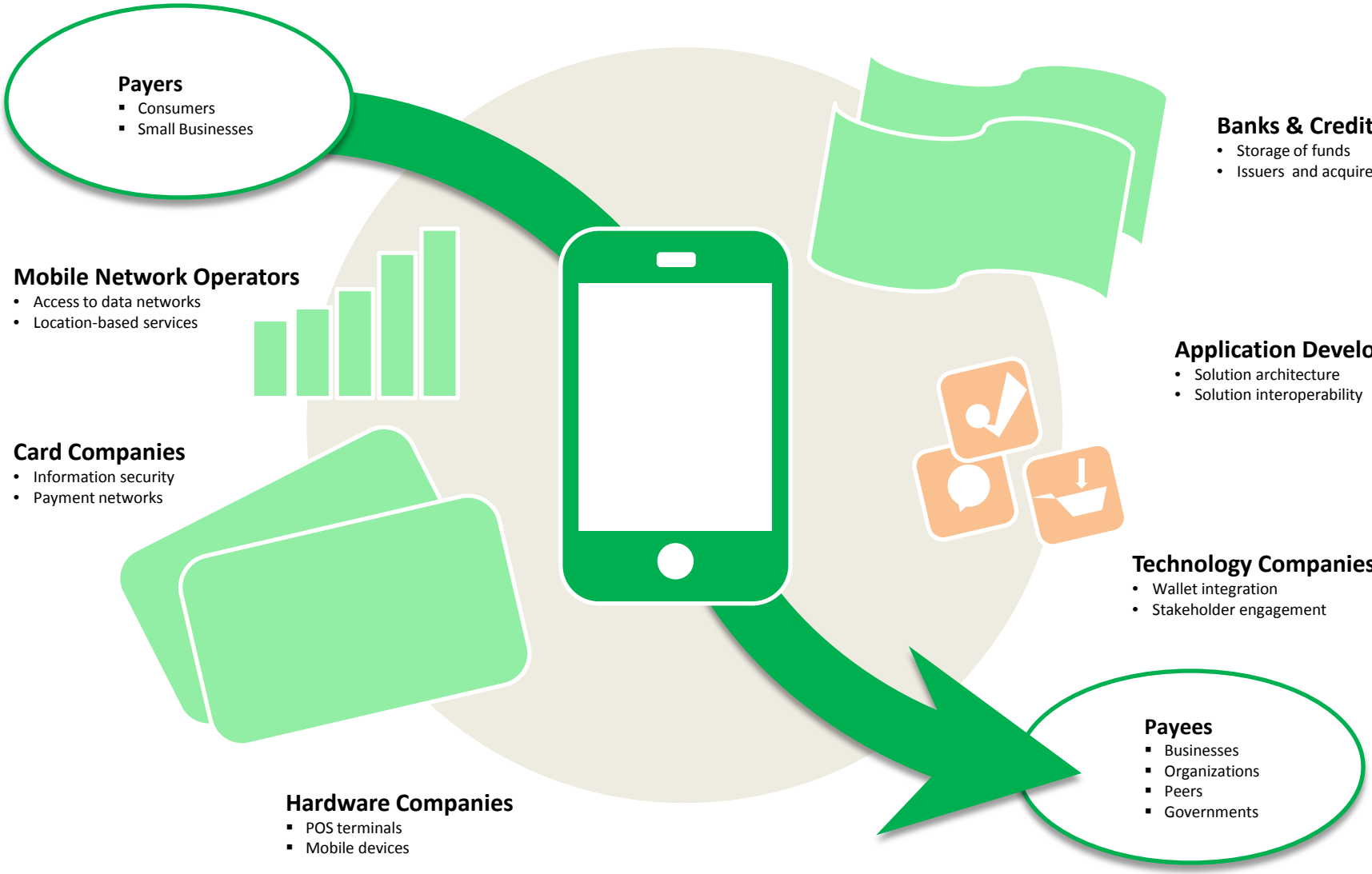
As you may have guessed, smartphone manufacturers like Apple and Samsung have a direct stake in the payments realm as technologies like NFC and QR codes are employed as payment transmitters. Equally involved are mobile network operators (MNOs) like AT&T and Verizon. No matter which technology is leveraged, these networks are destined to be hammered by mass data usage related to retrieval of account information, electronic receipting and location-based promotional offers. At the same time, MNOs will be asked to deliver adequate speed, quality and security as mobile payments become main stream.

" The recent debuts of payWave and PayPass have turned your card swipe at 7-Eleven into a contactless tap through the use of Near Field Communication (NFC) "

Current State

The Mobile Payments Landscape (cont.)

Non-traditional players like PayPal are redefining the value proposition of FIs as they become higher profile intermediaries



Current State

The Mobile Payments Landscape (cont.)

" Stakeholders are doing what's best for them, leaving the mass without a comprehensive and widely-accepted solution "

With the evolution of technology has come a crossroads between financial services and mobile software. Cutting edge tech firms like PayPal, Google Wallet and Square are challenging banks' value proposition as deposit takers and payment facilitators. In addition to storing funds and creating a payment medium, these firms are more than capable of supplying financial analytics and customer loyalty data through their mobile apps. The idea of a tech company holding your disposable wealth is not as strange you may think. Starbucks, a coffee company, generated over $2 billion in deposits onto its mobile app last year while more than 5,000 U.S. financial institutions managed less than $1 billion in deposits (per Brett King of Moven). Suddenly, that store loyalty app on your phone looks no different than a checking account at Chase.

" The idea of a tech company holding your disposable wealth is not as strange you may think "

The list of payment intermediaries goes on. Pseudo-banks like Moven look to provide a stepping stone to mobile exclusivity through the issuance of an NFC-enabled smart phone sticker and real-time analysis of spend at POS. Location-based startup SCVNGR launched LevelUp as a means of allowing consumers to pay by smart phone at retailers and receive loyalty credits in doing so. Other hybrid models worth investigating include: ISIS, Simple Bank, GoBank, Zapp and Clinkle.

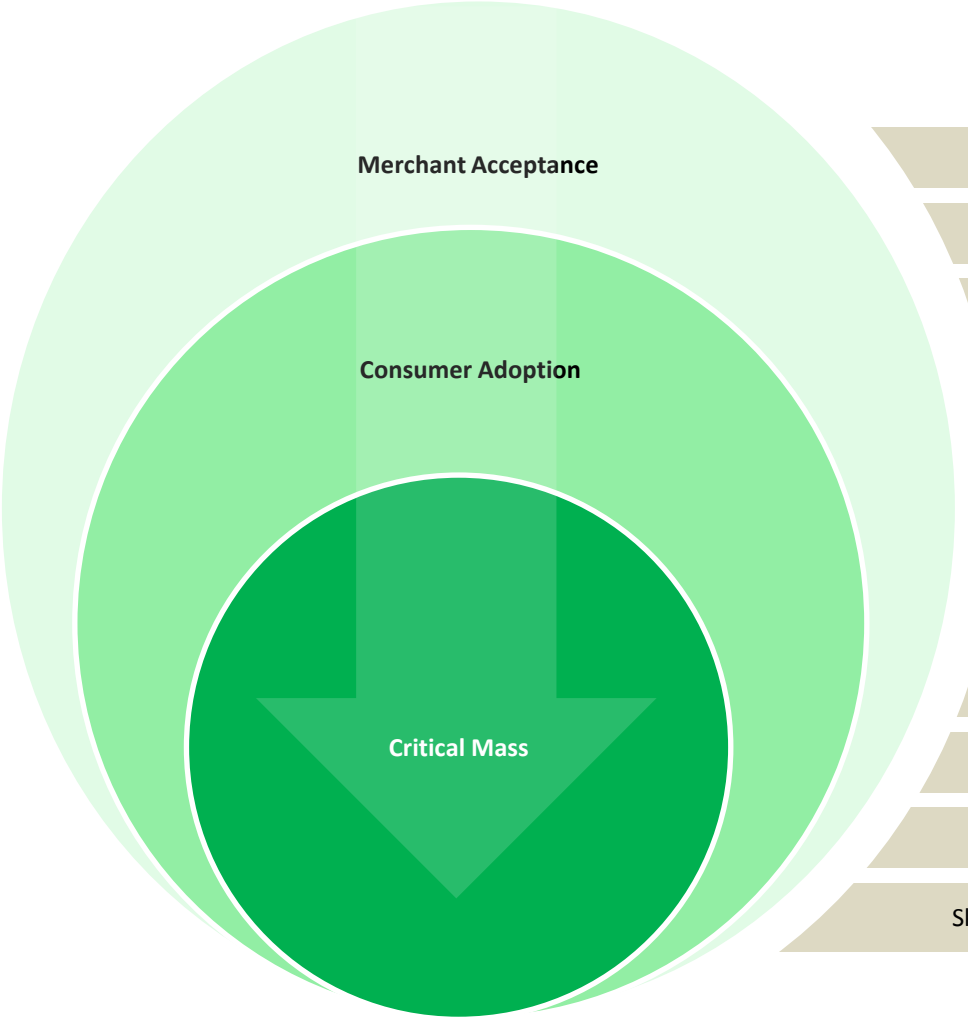
In the highly fragmented state of payments, stakeholders are doing what's best for them, leaving the mass without a comprehensive and widely-accepted solution. Perhaps the most frustrating aspect of the slow mobile payments adoption in the U.S. is the fact that other economies, like those of the UK and even Kenya, are freely running with the technology.

The movement will surely gain steam as banks fully embrace mobile and Apple installs NFC in its next iPhone. Until then, the playing field for payments shall remain overpopulated.

" Cutting edge tech firms like PayPal, Google Wallet and Square are challenging banks' value proposition as deposit takers and payment facilitators "

Current State
Challenges

Intermediaries must cut through layers of friction in the payments ecosystem that have kept the U.S. behind the rest of the world



Layers of Friction

- Merchant reluctance to invest in new point-of-sale terminals
- Added complexity to processing costs and interchange
- Uncertainty around when and with whom to partner
- Strenuous efforts to train and educate store staff
- Lack of a standard data transmission technology
- Complex and highly regulated U.S. financial system
- Lack of direct value-add to merchants and consumers
- Chicken and egg scenario for all stakeholders involved
- Concern over security and misuse of personal information
- Availability of mobile devices amongst low-income consumers
- Skepticism and general lack of understanding around mobile pay

Current State
Leaders & Laggards

Value-add features like digital receipting and location-based promotion could pave the way to widespread adoption of mobile pay

It pains me to say that 2013 will likely go down as an underachieving year for mobile payments in the U.S. Visionaries that anticipated physical wallet extinction have been disappointed by the fragmented efforts to connect consumers and merchants via mobile. However, interest in the technology has seemingly ticked upward this summer, led by big investment in payment apps by retailers and quick service restaurants (QSRs).

Mobile solutions that use QR codes to conduct in-store transactions have been the popular choice amongst payment pioneers, rather than the more advanced near field communication (NFC) technology.

While consumers aren't screaming for alternatives to plastic, industry leaders know that value-add features such as digital receipting and location-based promotion could eventually pave the way to widespread adoption of mobile pay. The most ambitious stakeholders to-date may not be who you'd expect.

Leaders

It's still early in the ballgame but, as of now, the clear leaders in the mobile payments movement are not payment intermediaries, but rather the merchants themselves. With the uncertainty around which third-party wallet solution consumers will gravitate toward, merchants have taken it upon themselves to develop proprietary payments apps. So far, loyalty apps supplied by retailers have proven to be the only solutions that present consumers with direct value-add.

From a merchant perspective, this independent payments strategy is a step in the right direction. Rather than committing to a specific wallet solution, Starbucks committed to a payment technology in QR codes. This way, the coffee provider was able to get the ball rolling with mobile while maintaining the latitude to accept other QR-enabled wallets as they become popular amongst consumers. Other retailers and QSRs have kicked the tires on this strategy and are primed to reap the benefits.

Somewhere in the Middle

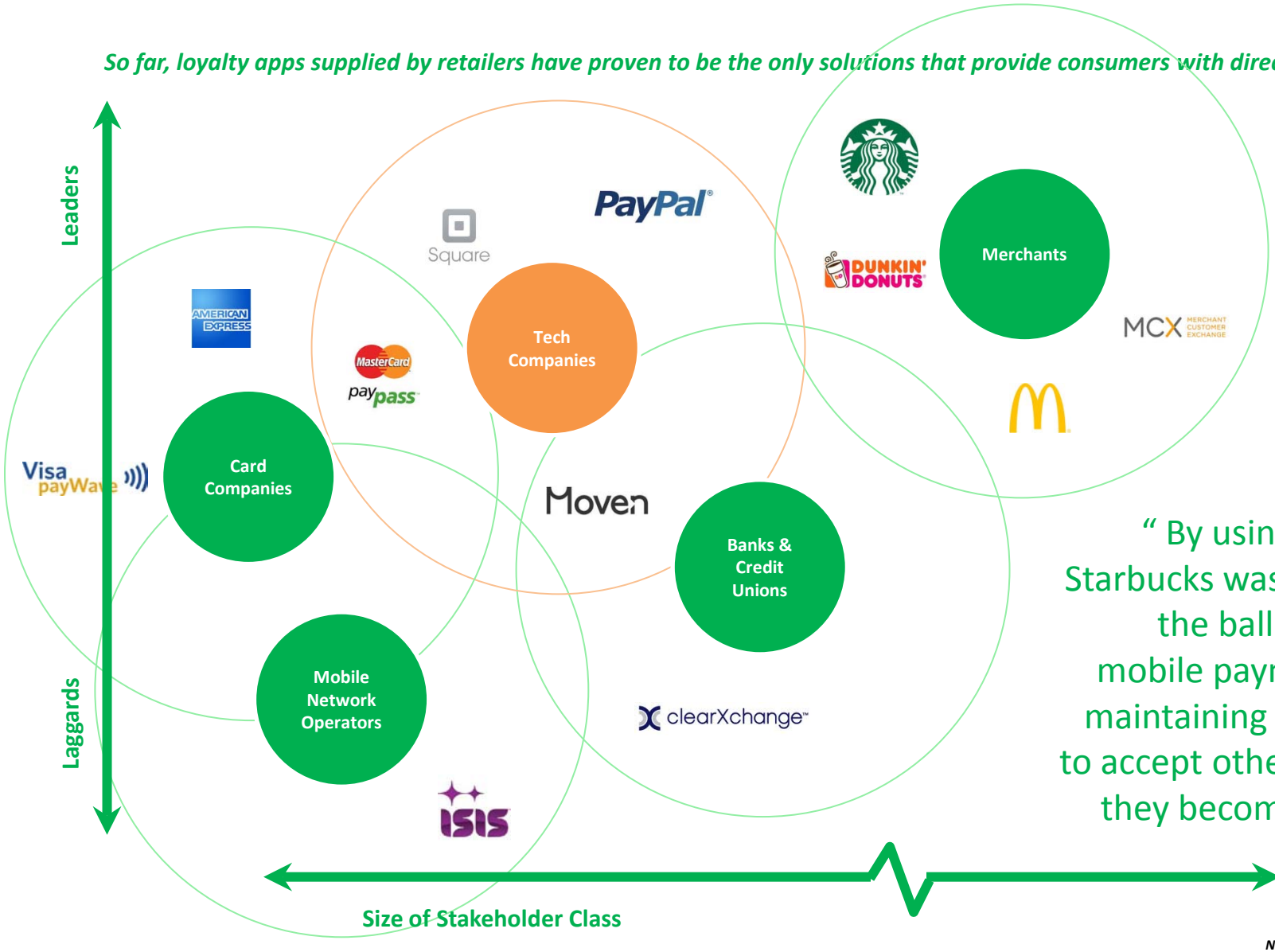
As the mobile point-of-sale (mPOS) space becomes increasingly saturated with card readers, more payment processors like Verifone and Intuit will follow Square's lead and invest in mobile wallet solutions as a way of bridging the plastic-heavy present with the mobile-driven future. One of the originals in the payments space, PayPal has been unique in sticking to its cloud-based roots and truthfully has only given up ground as an in-store payment intermediary since the rise of investment in mobile.

The mixed success is shared by Google and its NFC-based wallet that has seen poor adoption since its launch in 2011. Rival Apple's presence in payments has been nonexistent, though there is speculation that this could soon change. Experts are bullish on the use of Apple's Passbook app in payments, which has had success centralizing airline tickets and loyalty cards. A laggard right now, Apple could fly to the top of the market if it can use Passbook to successfully aggregate financial information, retail rewards and spend analytics.

Current State

Leaders & Laggards (cont.)

So far, loyalty apps supplied by retailers have proven to be the only solutions that provide consumers with direct value-add



" By using QR codes, Starbucks was able to get the ball rolling with mobile payments while maintaining the latitude to accept other wallets as they become popular "

Note: *Positioning not to-scale*

Current State
Leaders & Laggards (cont.)

One value proposition showcased by card companies is security, which has been a primary area of concern for consumers

The sense of urgency around mobile at card companies like Visa and Mastercard is at an all-time high. Once the kings of financial technology, the credit card giants know that their space is being invaded by up-and-coming payment processors, Square and PayPal. With the approaching deadline for merchants to meet EMV standards in their POS terminals, now is an opportune time for card companies to sell store owners on mobile payment technologies.

Card companies have taken a united approach to mobile pay, developing solutions that are card brand agnostic. Mastercard in particular has ramped up its mobile efforts through the marketing of its MasterPass solution, which is compatible with Visa, Discover and Amex-branded cards. One value proposition sure to be talked up by card companies is security, which has served as a barricade to consumers' embrace of mobile payments thus far.

"Once the kings of fintech, credit card giants know that their space is being invaded "

Laggards

With core depository functions at the forefront of their mobile agendas, banks have put payments initiatives on the backburner – at least those other than mobile bill pay. Many banks aren't even sure if the payments arena is their space to play, instead allowing card companies to chase after what they do best. After all, there are much better avenues for banks to generate fee income in the mobile universe than payments.

The area of payments where banks may be able to make a dent is peer-to-peer (P2P), though efforts to securely transmit account information across banks are still a work-in-progress. The alliance between Chase, Bank of America and Wells Fargo (deemed 'ClearXchange') has been, in short, a bust. Sticking to P2P limits banks' stake on the merchant side, where card companies have traditionally called the shots.

By investing exclusively in P2P initiatives, banks can zero in on a single stakeholder, rather than catering to both consumers and merchants.

The area of payments where banks may be able to make a dent is peer-to-peer (P2P), though efforts to securely transmit account information across banks are still a work-in-progress

Current State
Leaders & Laggards (cont.)

" MNOs have become utilities in nature and thus have been slow to invest in cutting edge technology like mobile payments "

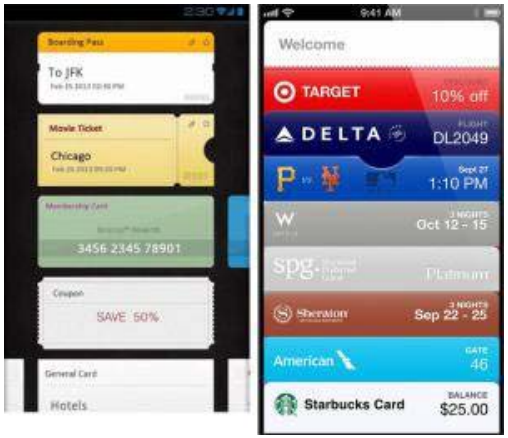
Like banks, mobile network operators (MNOs) have become utilities in nature and thus have been slow to invest in cutting edge technology like mobile payments. Of course, providing access to cellular and data networks is the core business of MNOs, not playing a clearinghouse role in financial transactions.

But after seeing the success that telecom provider Safaricom has had with its M-PESA payment solution in Africa, it's not unreasonable for U.S.-based MNOs to want a piece of what's destined to be a multi-billion dollar market.

Enter Isis, the telecom industry's only true attempt at breaking into the mobile payments mix. The NFC-based solution is backed by leading MNOs, AT&T, Verizon and T-Mobile, and is expected to be made available to smartphone owners later this year. Like PayPass and Google Wallet, Isis requires widespread support of NFC, a nuisance to some merchants that are slow to invest in new POS terminals. Given the time and funds poured into Isis' rollout, it may be a do-or-die scenario for the telecom consortium.

Conclusion

Merchants have reason to be excited about their self-made success in payments thus far. Not only have they avoided pre-maturely committing themselves to third-party payment processors in the interim but may have also avoided doing so indefinitely if the merchant-backed MCX wallet gains traction in the retail world later this year. But, look for companies like Apple and Mastercard to try and disrupt this initiative with their own mobile wallet solutions that integrate with retail apps.



" Given the time and funds poured into Isis' rollout, it may be a do-or-die scenario for the telecom consortium "

" mPOS card readers have been invaluable to independent merchants such as cab drivers, contractors and freelancers "

If you lack familiarity with the payments space then you might describe 'mobile pay' as simply paying for a latte at Starbucks with your smartphone. In reality, mobile has a far greater reach in payments, from purchasing movie tickets on the Fandango mobile app to settling fantasy football fees amongst friends. Now consider the mobile point-of-sale (mPOS) transaction, which, like your Starbucks purchase, takes place at the physical POS. However, mPOS entails a vastly different payment experience - one that impacts merchants of all kinds, yet will have its most lasting effects on in-store commerce.

In contrast to consumer-led mobile pay, merchants supply the mobile device in the mPOS transaction, equipped with a 'payment dongle' (detachable card reader) that processes credit card swipes. These card readers have become commonplace in urban settings, allowing merchants to accept credit cards anywhere he/she does business. And while the technology encourages continued use of plastic by consumers, it is a crucial building block in the evolution of retail and the mobile wallet.

Reshaping SMB and Retail Strategy

Because of their portability, mPOS card readers have been invaluable to independent merchants such as cab drivers, contractors and freelancers whose lack of a brick-and-mortar presence formerly presented challenges in taking alternatives to cash and check.

Now, rather than having to turn down cashless commuters, cab drivers can run credit cards on their smartphone, sending a digital receipt to the passenger's e-mail address.

Oddly enough, the use of card readers has also become popular in small and mid-sized business (SMB) establishments like physicians' offices where portability of POS terminals isn't even necessary. Many SMB owners have chosen to forego bulky and complex POS solutions in favor of iPads that save desk space and require minimal installation and maintenance effort. The favoritism of mPOS in these settings is telling.

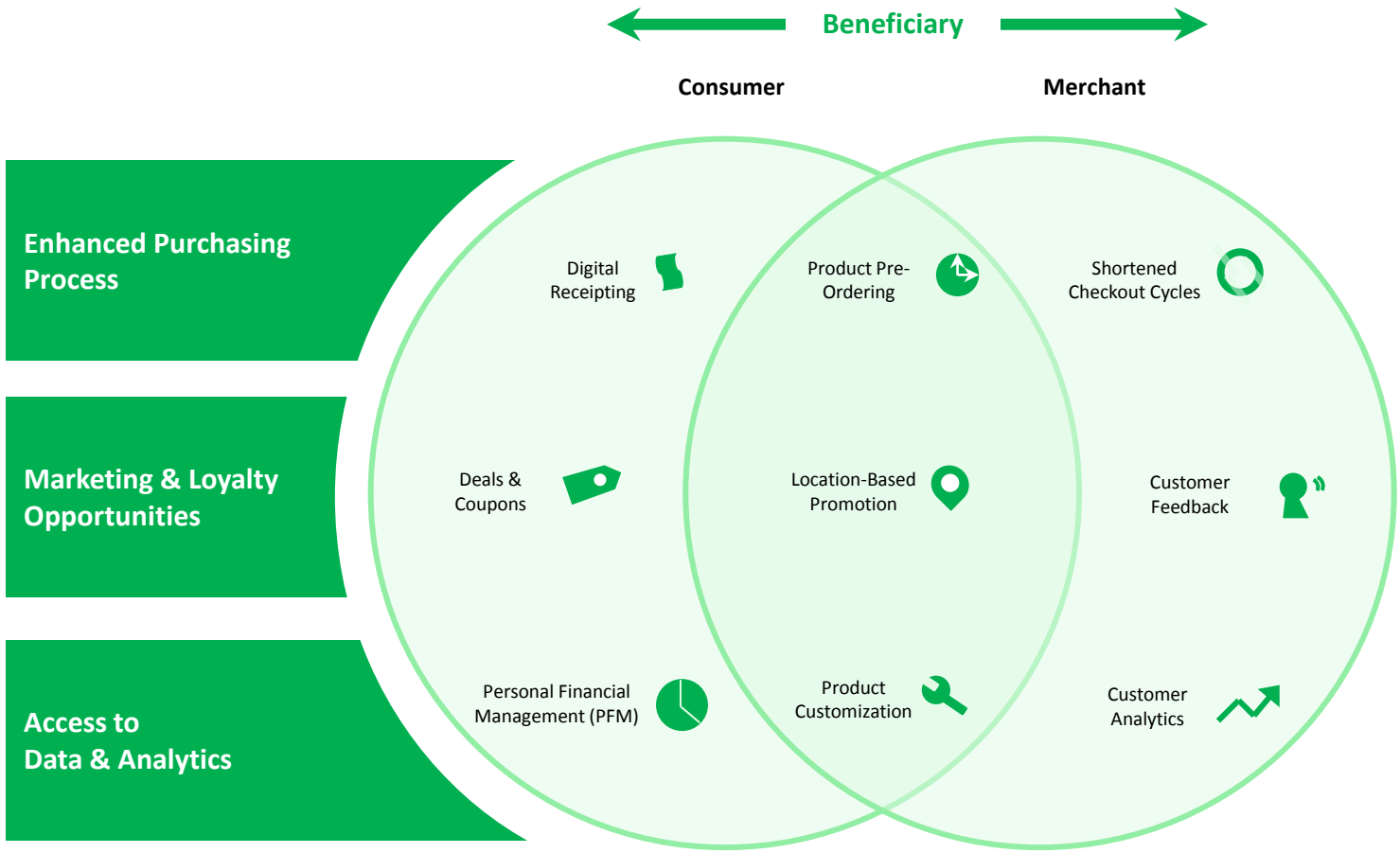
Even more striking is the use of mPOS at large-scale retailers, which are famous for sizable cash wraps (checkout counters) preceded by checkout lanes. Traditionally in favor of more sophisticated payment-taking hardware, retailers have been dazzled by the benefits mPOS provides from a logistics perspective. While certain retail transactions must be confined to a stationary POS terminal, the simple purchase of a t-shirt should be able to occur anywhere in the store.

Rather than conducting all checkout operations at a central cash wrap, retailers can position tablet-equipped associates across the sales floor to handle more than just POS tasks, such as pulling up product and loyalty information for shoppers. The inventory-packed and ever-busy Apple stores are a prime success story, using mPOS to free up floor space, educate consumers on new products and cycle them through outlets more efficiently.

The Road Ahead

Value Proposition (cont.)

Applications of the mobile wallet extend beyond payments, from loyalty programs to coupons to real-time spend analytics



The Road Ahead
Value Proposition (cont.)

The mobile wallet space features strenuous development efforts but potential huge payoffs for technology intermediaries

Bringing the Wallet into the Equation
With strong demand for mPOS from merchants of all sizes, the space has become highly competitive and increasingly commoditized, now crowded with late market entrants like Groupon. As such, many mPOS providers have expanded product portfolios into the mobile wallet space, where development efforts are strenuous but payoff has potential to be huge. Not even twelve months since its release, Square's mobile wallet has received extensive buy-in from Starbucks customers.

The overcrowding of mobile payments as a whole is a catch-22 as merchants and consumers are presented with more options but must decide which solution to adopt. This does not present an issue for mPOS as card readers of all kinds are generally able to accept any type of credit card. However, mobile wallets require merchants to commit to a common payment-accepting technology (whether it be QR codes, NFC or the cloud) and for consumers to trust that their wallet will be accepted at the vast majority of merchants.

This chicken-and-egg scenario is a primary reason for the mobile wallet's slow takeoff. No merchant or consumer wants to invest time and money in a transient solution that fails to hit the critical mass. Minimal investment is required by the two parties in mPOS, which explains its quick uptake. But one can't ignore the enriched buying experience of a mobile wallet. The potential for financial, social and loyalty applications in a wallet provide payment intermediaries with an opportunity to differentiate their products.

What Lies Ahead
If intermediaries can't force wallet solutions on merchants, they may be forced to rely on external factors; it just so happens that the deadline for merchants to meet EMV standards in their POS terminals is approaching. Typically only replacing POS terminals once every six years on average, merchants may see the deadline as an opportune time to pony up funds for new POS technologies that are compatible with mobile wallets. Any prior experience a merchant has had with mPOS could play a role in continuing down the mobile path.

There is no doubt that mPOS has given consumers a preview to the wallet-based future through features like digital receipting and general exposure to the use of mobile at the physical POS. An increasing number of consumers are surely thinking, 'If the store associate is using a tablet to take my payment, I should be able to use my smartphone to make one'. As margins decline in mPOS payment processing, intermediaries will likely migrate to the wallet. Until then, mPOS will remain a stopgap solution for payments that inadvertently reshapes retailers' in-store strategies.

" The overcrowding of mobile payments is a catch-22 as merchants and consumers are presented with more options but must decide which solution to adopt "

The Road Ahead

Value Proposition (cont.)

"With their service-oriented buying experience, retail and dining are two attractive industries to pilot mobile solutions "

Let's get this out on the table: your physical wallet isn't turning fully digital anytime soon. The idea that mobile will supplant your card at the Shell station, cash on the train and check to your babysitter by next month is not practical. The reality is that we're not very far along in the evolution of mobile pay (mPay) and, as of now, paying utility bills from our phones is about all that we can hang our hats on. It's time to identify opportunities that pair mobile payments with other activities at the point-of-sale.

The answer lies in Starbucks' pioneering of proximity payments, which are known to the gurus as payments that take place at the *physical* point-of-sale (as opposed to the purchase of a jacket from the Amazon app on your smartphone). With their service-oriented buying experience, retail and dining are two attractive industries to pilot mobile solutions. As you may have guessed, half of mobile's value in this space isn't even directly related to payments, but rather the customer's interaction with the merchant.

We may not openly complain about the sluggish search and checkout process at retailers but the opportunity to make it better is certainly there. Nothing is more aggravating than the individual at the cash register searching for the right change or card to make a purchase – or, digging through his wallet for the correct receipt to return a good.

Likewise, the time spent waiting on your server to grab the check or run your card at a local pub can be frustrating if you're in a hurry. Customers with tight schedules are sure to give their loyalty to businesses that are known for efficiently cycling guests through checkout. (Jimmy John's knows that many of its customers are willing to forego a toasted sandwich in exchange for prompt food preparation.)

And while there is surely potential for a speedier checkout, the most compelling use case for mobile at the physical point-of-sale revolves around simplicity and adding convenience to the consumer's shopping experience. By leveraging a mobile wallet, all cards and coupons are in one place, eliminating the need to search for the right ones at checkout.

This all-in-one feature comes into play shortly after making the back-to-school shopping run at Target that is sure to result in the return of multiple goods. With a smartphone in hand, paying at the register is as simple as a tap and returning a good just means pulling up the appropriate digital receipt from your phone.

In the situation of needing in-store assistance at a large discount outlet like Wal-Mart, the tap of a button can be used to flag down a nearby store associate or display a map of the store. With these on-spot capabilities, searching for your mother's special brand of skin lotion could take less than three minutes, versus the usual 10. Of course, it would be nice if the time saved searching for your good wasn't rendered useless by having to stand in the checkout line for 20 minutes. A slightly faster checkout time for each incremental shopper can dramatically reduce the cycle time for a long line at some retailers.

The Road Ahead

Value Proposition (cont.)

" Payments are just a layer of the total value that a smartphone or tablet can deliver at the physical point-of-sale "

While the tap or scan of a smartphone may not ultimately save you time versus a credit card swipe when waiting on your clothes to be folded at Nordstrom's, it's certainly a time-saver when checking out at pay-and-go outlets like CVS.

The distaste for long lines and tedious payment procedures is shared equally amongst customers and retailers. Waiting in line can be avoided entirely by placing orders with a smartphone in the store (prior to checkout) or even before arrival. With especially high volume of guests during peak meal hours, the dining industry (and fast food in particular) is one that could take advantage of a pre-ordering feature in smartphones.

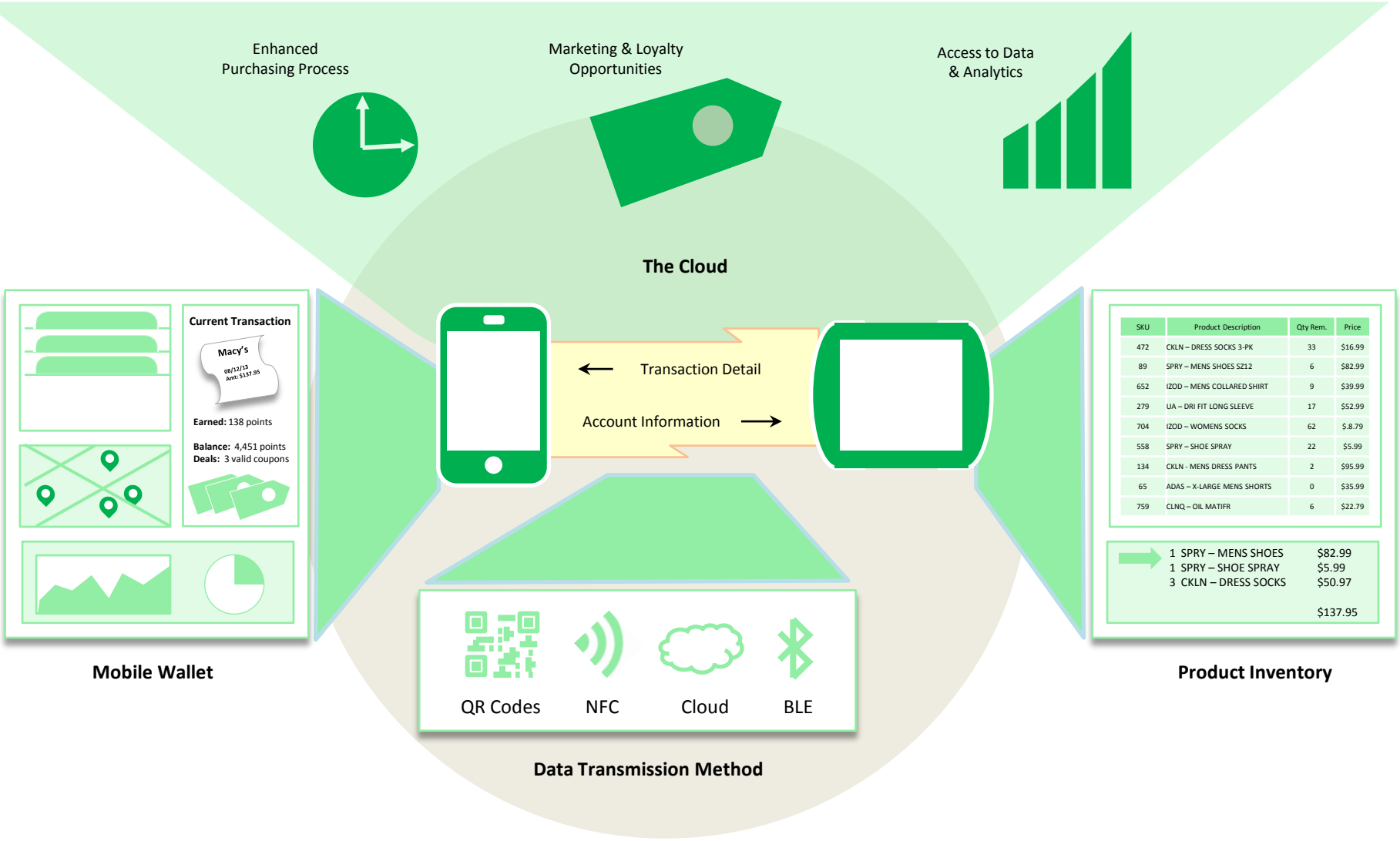
In this day and age, high-quality service is a minimum expectation at restaurants, with diners especially sensitive to poor turnaround time on food preparation. Sandwich shops known for oven-toasted subs are sure to take advantage of opportunities where customers give notice of their order before arrival.

Pre-ordering seems like an obvious solution to delays at checkout but the feature is a double-edged sword for some merchants. Many retailers would prefer for its guests to browse the aisles of their store in hope of other products catching their eyes. In these cases, it would be ideal for retailers to have the option of disabling a pre-ordering feature or limit it to in-store use. However, it's important to note that a good portion of those who utilize pre-ordering are the same customers that are exceptionally bothered by long lines and chatty salespeople, reducing the value in promotional displays and cross-selling attempts.

Pre-ordering is actually a seasoned business offering today but typically only in the form of carry-out at restaurants, which isn't regularly burdened by long lines. Rolling out the functionality to select outlets like pharmacies and other discount shops could change in-store marketing strategies. During a 30-minute lunch break, a physician might use his mobile wallet to ensure that his sandwich is toasted prior to his arrival at Subway; he then may pre-order a bouquet for his wife at a flower shop for immediate pickup, all before returning to the office in time for a 1:00 meeting. In this situation, every party involved wins and it's all made possible by a smartphone.

With many elements to the purchasing process at a retailer or restaurant, payments are just a layer of the total value that a smartphone can deliver at the physical point-of-sale. If it receives adequate buy-in from consumers and merchants alike, mobile has the potential to redesign checkout procedures, in-store customer service, and in the case of restaurants, order placement. After seeing the success that Starbucks has had employing mobile in its stores, the concept should be a no-brainer for similar retail and dining establishments.

The Road Ahead
Proximity Payments



Apple is likely to take a backwards approach to payments, focusing on user experience ahead of payment reconfiguration

It should be common sense by now: consumers flock to technology that works for them rather than curbing their lifestyles to fit a product. In the rapidly evolving mobile payments space, we've seen too many providers try to force consumers' hands, namely Google with its use of NFC in Google Wallet. Consumers have repeatedly rejected the need for mobile pay but are all ears when it comes to ways that a smartphone can make their lives easier.

It's easy to forget that the vast majority of our interaction with e-mail, news, travel and social media comes through a smartphone. Shopping, too, has found its way into smartphones, through avenues like Amazon Mobile and the iTunes Store.

The in-store shopping experience, however, is less developed on the mobile end and has obvious ramifications for payments at brick-and-mortars. The company that may be best positioned to serve this 'proximity payments' market is Apple.

Though not as seasoned in the payments space as say, Google, Apple certainly has the infrastructure to make some noise. It owns over half a billion credit card numbers through its iTunes Store and boasts a highly successful point-of-interaction (POI) tool in Passbook. More importantly, Apple is likely to take a backwards approach to payments, delivering a superior user experience ahead of payment reconfiguration, potentially avoiding the friction incurred by other wallet providers.

Expect Apple to place heavy emphasis on customer loyalty incentives and social plug-ins, letting mobile pay come as a secondary convenience. To get there, the company can leverage its users' mobile footprint to bypass the burdensome information-entry stage. Why would a consumer roll the dice on a third-party solution with which he has no previous affiliation when his iPhone is already loaded with contacts, credit cards and loyalty apps?

" (Apple) owns over half a billion credit card numbers through its iTunes Store and boasts a highly successful point-of-interaction (POI) tool in Passbook "

In a payments movement that's really about the shopping experience, Apple is able to build on Passbook's integrative capabilities

To transform a user's history with iOS into a serviceable wallet, I expect Apple leverage Passbook. The tool connects to disparate apps behind the scenes to quickly pull up store coupons and event tickets. My check-in at the Westin and Amex purchase at their restaurant seamlessly appear in Passbook as a loyalty card and digital receipt. Loyalty information and proof of purchase detail (boarding passes, e-tickets, etc) are stored in QR codes and can be easily transmitted to external readers with one quick tap.

Now imagine the marketing potential: coupons appear on a user's iPhone outside a Macy's outlet and loyalty points are displayed immediately after the location-driven purchase. The user can get this 360-degree view of the shopping experience, along with her month-to-date spend on clothing, as Passbook integrates with the store loyalty program and her financial accounts. Having ready access to card information, Passbook may also be a candidate for facilitating P2P pay or auto-filling payment credentials in m-commerce checkout.

Apple will make every effort to protect Passbook's simplicity, should the company decide to transform the POI tool into a mobile wallet. Right now, Passbook is merely a centralizer, offering few functions by itself. I would expect Apple to uphold Passbook's simple UI and limit its in-app functions to account management, P2P pay and PFM. Balancing capability with complexity is a challenge that every wallet provider has had to face but one that I believe Apple will handle well.

All this said, Apple won't be the end-all solution for the market as a whole, with iOS only accounting for 15% of the smartphone market. But, the industry is inundated with more than enough interest to develop an Android-equivalent, once Apple establishes a foothold. Apple would capture transactional revenue from P2P and in-store payments but is likely to be more interested in growing its iOS user base, which translates into recurring iPhone sales.

In a payments movement that's more about enhancing the in-store shopping experience than paying, Apple is presented with the perfect opportunity to leverage its relationship with iOS users and build on the integrative capabilities available in Passbook. While an Apple wallet may not look like the solution described above, you get the sense that the tech giant's entry into payments is forthcoming.

" Shoppers can get a 360-degree view of their shopping experiences as Passbook integrates with store loyalty programs and financial accounts "

Articles Included in this Report

- Breaking Down the Mobile Payments Playing Field
- Mobile in Retail and Dining: An Enhanced Purchasing Process
- Fundamental Smartphone Features Likely to Play a Role in Payments
- State of the Mobile Payments Playing Field – Leaders and Laggards
- mPOS: Tranforming In-Store Commerce
- The Case for an Apple Mobile Wallet