Digital Payments Strategy for U.S. Retail Banks

The digital transformation of payments has put power in the hands of the customer and allowed nimble-footed nonbank competitors to create a potential threat to retail banks’ domination by providing mobile apps to carry out transactions. Banks will not only need to provide strong payments offerings, but do so by embracing a mobile-centric app and open API-based approach.
**Executive Summary**

Digitization is transforming banking products and services that have remained unchanged for several decades. It can be argued that no other service has been impacted as much by this phenomenon as payments, a traditional stronghold for retail banks. By empowering the consumer, digitization has allowed nonbank players to threaten banks’ hegemony in the area.

Digital payments are a direct result of the digitization of almost all types of payments. They cover all payments and transfers made through electronic formats, including online payments, mobile payments and crypto-currencies through instruments such as mobile wallets, digital wallets and contactless cards. These innovations are fairly recent and consumer adoption levels in the U.S. are low as of now but are expected to grow. A surge in nonbank activity in the digital payments arena has meant that the marketplace is currently characterized by a fragmentation of solutions and platforms, with a clear winner yet to emerge. Banks, however, seem to have taken a wait-and-watch approach to digital payments. This will need to change, as millennials and gen-X-ers emerge as the leading adopters of mobile payments; banks need to be prepared to attract and retain this key demographic. To this end, they need to adopt technologies and strategies that will allow them to maintain their relevance in the payments market.

At the heart of the digital revolution in payments sits the smartphone. With its pricey real estate up for grabs, nimble-footed nonbank players, unhindered by legacy systems, have been quick to seize the opportunity. Along with successful disruptors such as PayPal and Square, tech giants such as Google, Apple and Facebook have made inroads into the payments landscape and are looking to push banks into the payments back office. Banks need to catch up with the nonbank competitors. However, they can build on the inherent strengths of the banking system. These include extensive infrastructure, deep customer relationships, multichannel capabilities and a strong focus on data security and privacy. The go-forward strategies of banks need to consider crucial strategic and technological aspects of the digital transformation:

- Leverage social, mobile, analytics and cloud (aka SMAC Stack) capabilities.
- Focus on understanding customer payment behavior.
- Create a secure payments environment that also protects consumer privacy.
- Embed Code Halo™ thinking1 to derive unique customer insights from multiple channels and differentiate offerings.
- Employ an agile approach to product development to enable fast and continuous evolution.

**Digital: The Threat and Opportunity for U.S. Banks**

**Digital’s Impact on Payments**

Smartphones have changed the banking habits of Americans. This is especially true for the younger demographics. The Federal Reserve found that 22% of all mobile users made a mobile payment. Among the age groups of 18-29 and 30-34, mobile payments were made by 34% and 31% users, respectively, in 2014.2 These numbers are impressive, but mobile-based payments currently represent a minuscule portion of the mammoth $16 trillion U.S. consumer payments market. Nevertheless, contactless payments are the fastest growing mobile payment type, set to grow at 56% annually between 2014 and 2019, according to Forrester.3 Mobile in-store payments are expected to grow at 154% CAGR between 2013 and 2018, reaching $189 billion.4

Smartphone makers head the nonbank segment in the mobile payments landscape, led by Google (Google Wallet) and Apple (Apple Wallet). Given their size and reach, Apple and Google have been able to recruit a large number of consumers in a very short time. The bustle of activity (see Figure 1) in the mobile wallet space shows how serious these companies are about digital payments.

Digital’s impact is pervasive across payment types. In digital bank transfers, for example, digital technology is allowing start-ups to reduce the time taken for check transfers.5 Meanwhile, U.S. households are increasingly using e-bill payment systems, which accounted for 23% of total bills presented in 2014.6

Social payments are the best example of how digital has transformed payments. By allowing people to transfer small amounts to each other through their mobile phones, digital has revolu-
tionalized peer-to-peer (P2P) payments. P2P payments have attracted large tech companies such as Google and Facebook. In the U.S. alone, these transactions are expected to reach $86 billion by 2018. Combined with crypto-currencies (see sidebar, page 8), P2P payments hold the potential to transform this segment.

Another area that continues to attract nonbank players is cross-border digital remittances. Increasingly strict global regulations and compliance requirements and banks’ lack of interest in small-scale transfers have meant that banks have charged higher fees than the competition. This has allowed digital start-ups such as Ripple and Xoom, with their innovative mobile and digital-based approach and freedom from overhead from legacy infrastructure, to cut processing cost and time significantly. As a result, they have been growing exponentially, at the cost of banks’ and financial institutions’ market share. In 2014, U.S. consumers used Xoom to make $6 billion worth of remittances to 32 countries.

Digital Payments: Initial Hiccups
The digital payments market is fragmented, with multiple types of platforms and solutions. This is understandable given the nascent stage of the market, but it has also made the adoption of mobile payment at crucial touchpoints such as a merchants’ points-of-sale slower, which in turn affects consumer uptake. As of April 2015, 25% of smartphone owners expressed a likelihood of using mobile payments over the next 90 days, an increase of merely 1% from December 2014 (but a gain of 6% over year-ago numbers), according to 451 Research.

Concern over data security has emerged as the primary reason for the low uptake of mobile payments. A survey by PunchTab found that 62% of consumers consider security to be the top reason for not using mobile payments. The recent incidents of data breaches at retailers, coupled with fraudulent transactions on Apple Pay, have not helped. There is also a lack of consumer education with regard to mobile payments. The PunchTab survey found that 67% of consumers were not aware of whether their favorite retailers provided a mobile payment option. Banks and card issuers have made attempts to address this issue. One such security feature was introduced by OnDot, a start-up that works with card providers, in 2014, through an app called CardControl. The app gives card holders a variety of controls such as assigning specific locations to allow transactions, controlling online transactions or turning off transactions altogether. Widespread adoption of such features will go a long way in assuaging customers’ concerns.

Nonbanks Are Upping the Ante
The proliferation of smart devices, especially smartphones, is the foundation upon which nonbank competitors have built their offerings. Large volumes of data, combined with advanced analytical capabilities, allow these players to generate helpful insights and quickly enhance the user experience. The fact that these competitors use existing banking infrastructure while working from outside the banking system is also a major strength. Also, these players tend to have a more personal relationship with their customers. Take Starbucks for example.
Going by the latest numbers, 13 million of its customers are using the company’s mobile app, with 7 million mobile transactions per week. Its recent pilot for mobile order and pay in Portland, OR, was also a success and is expected to increase its reach in mobile payments and customer loyalty. Starbucks’ success was a bolt from the blue for industry observers; but it is due mainly to two crucial factors: its technology infrastructure that supports mobile payments and a loyal customer base. Retail giant Walmart now offers inexpensive full service prepaid accounts from American Express aimed at more than 70 million unbanked and underbanked Americans.

Although mobile payments uptake is slow, customers have shown a positive attitude toward nonbanks. A survey by Cisco found that, on average, 80% of respondents would trust a nonbank for traditional banking products such as checking accounts, credit cards and mortgages. A survey of senior banking executives by Temenos found that 23% of respondents believe these data-driven and agile competitors from outside the financial sector are banks’ most significant competition. Yet, banks have so far adopted a wait-and-watch approach to nonbank competition. This may be due, in part, to the fact that the digital payments ecosystem is crowded at present and it is uncharted territory for banks. However, such an approach does not bode well as it increases the threat of disintermediation and the possibility of nonbanks becoming the face of consumers’ financial activities, while banks are pushed to a less lucrative, back-office role.

Nonbanks do not face the handicaps of growing regulations, legacy systems and processes, and a multiplicity of systems and processes. As a result, they are better placed to focus on improving customer experience on mobile devices and online. It is striking then that 53% of respondents in the Temenos survey said that an overhaul of IT systems was unlikely at their organizations unless regulators forced their hand. Nevertheless, some banks such as JP Morgan have acknowledged the threat posed by the digital disruptors and are looking at ways to improve their services and offerings.

### Why Digital Payments Matter and How Banks Can Stay Relevant

The fact that banks need to compete to hold on to their payments revenue base is a given. However, digital will open up a host of possibilities if banks are able to get it right. To begin with, the ubiquity of a mobile device will increase the number of interactions customers have with banks, allowing banks to understand their needs better.

By offering a bouquet of payment services such as mobile, mobile wallets, P2P transfers, PoS mobile card readers and international remittances, banks stand to unlock new high-growth opportunities through increased transactions, in the form of fees charged. Creating tailored payment solutions will also allow banks to reach out to the unbanked and underbanked, thus increasing their reach. These could include mobile money transfer services such as M-Pesa, which have been successful in the developing world. Another example is the American Express Bluebird GPR cards aimed at the unbanked population, which have been sold at Walmart since 2012. Simultaneously, banks should look to understand their customers’ digital behavior and extend value-added services to meet specific needs across the banking value chain.

### Start Competing

If banks are to win against nonbank players, they need to create compelling and competitive digital payment offerings. The building
The Mobile Wallet Advantage

blocks of such an offering will have to be part of banks’ broader digital-first strategy, with a focus on creating an omnichannel banking experience. For competing with nonbanks, banks’ greatest strengths will be their customer relationships, focus on security and multichannel capabilities.

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Demographic Factors
One key feature of the U.S. payments landscape is the deep penetration of debit and credit cards. The U.S. has more than 160 million cardholders. This adds to retailers’ disinclination to move to a new form of digital payment, and in turn affects customer uptake. However, the leading adopters of mobile payments are the millennial and gen-X demographics (see Figure 2, previous page). Going forward, these will be the customers shaping digital payments. Moreover, this demographic is also more digitally inclined, craves personalization and is more likely to be frustrated with their primary banks than other age groups. Very soon, these customers will form the largest share of banks’ revenues.

Focus on Creating a Delightful Customer Experience
The entry of the new competitors makes it imperative for banks to focus on creating a banking experience built around their customers’ payment behavior. To this end, banks need to eliminate process silos to create a unified view of every customer’s activities across channels. Banks need to realize that their success in the battle for digital payments will depend on their ability to match the seamless, elegant and simplified user experience offered by the likes of Google and Apple.

Build on Core Competencies
In a digitized payments landscape, banks will have to adopt a start-up-like approach to understanding the customer, building compelling customer experiences and offering value-added services. The key here is customer data, which banks are uniquely placed to derive insights from. They are in a position to offer personalization of experience, and contextual offers and coupons. Banks could also generate new revenue streams by extending data services leveraging aggregated anonymized data and by building new and innovative products through big data analytics-enabled insights.

A comprehensive mobile wallet strategy will fit neatly into a bank’s digitization strategy and provide substantial benefits (see Figure 3). Such a wal-
Money and clearXchange for enabling seamless domestic fund transfers. U.S. Bank’s partnership with Western Union is an example of how banks can tackle the regulatory maze of international payments. The service is available to customers who meet the eligibility criteria set by the bank and allows money transfers to over 200 countries. Figure 5 (next page) gives a view of what banks can gain by providing international P2P transfers.

The key considerations for banks can be summed up as follows:

- Although at a nascent stage, the digital payments market is growing fast. The time is right for banks to start considering strategic options to tackle nonbank competitors.
- In the face of growing nonbank competition, banks must strengthen relationships with the younger generations.
- For a quality digital payments offering, banks should enable big data analytics capabilities by leveraging existing data sets, tapping into new data sets enabled by mobile and the Internet of Things, and purchasing external third-party data to deliver contextual and real-time customer experiences.
- Banks should leverage social media capabilities into the payment ecosystem to develop new payment products; and then tap into the treasure trove of information offered by social media platforms to enhance payment experiences and promote and market these products.

Figure 4
The age of connected devices has created a multitude of new digital touchpoints for enterprises and customers – from Internet TVs to connected cars. Understanding customer behavior in such a scenario requires banks to work on a platform that is not restricted to just two or three channels. This is important in order to gain deep insights into customer behavior at each touchpoint. We believe the future of digital banking will be a marketplace enabled by open APIs, with services delivered via apps. This means banks’ core banking capabilities, such as bank accounts, payment processing, card processing, etc., will be exposed through an open API framework, and the APIs will be used by banks and third-party entities to create apps that deliver services to the customers.

An open platform allows banks to pursue a collaborative approach with third-party developers and merchants, which makes it scalable and acceptable to partners. Such an approach helps banks stay nimble, enabling them to rapidly innovate as well as catch up with new innovations happening in the marketplace. The insights gathered from digital touchpoints will allow banks to sell new products/services tailored for these touchpoints, and as a result generate new revenue streams. The open API approach makes it possible for developers to integrate payment products across the multitude of touchpoints and hence establish the bank’s credibility as an innovator willing to partner with other entities to create apps that deliver services to the customers.

### Technology Imperatives

**Mobile-Centric Open API Infrastructure**

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<table>
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<th>Opportunity</th>
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| **Partner with a P2P Currency Exchange Platform** | • Banks will get access to the currency matching platform. Banks can expose these platform services on their digital channels.  
• Banks can offer P2P international transfers for a lower fee.  
• Building the sophisticated, fully automated matching platforms in house will take considerable time, diverting the focus from the core digital agenda.  
• Banks can build a referral-based partnership for low-value transfers. |
| **Partner with a P2P Money Transfer Company** | • Attract transfers to unbanked recipients.  
• Reduce transfer cost.  
• Expand distribution network. | • Attract transfers to unbanked recipients.  
• Reduce transfer cost.  
• Expand distribution network. |
| **Improve Mobile Experience**          | • Help customers transfer their funds abroad on the go.  
• Meet customer expectations to engage via mobile, a necessity in the digital era. | • U.S. Bank and Barclays enable international transfer from all digital channels including mobile app. |

**Figure 5**

- The approach to digital payments should not be only about building a new front end for service delivery. Instead, it should also entail end-to-end digitization of processes and systems to improve cost efficiencies, reduce processing times, streamline business processes and enhance fraud and risk management capabilities.
- The digital payments offering, for which the digital wallet forms the core, should handle the bank’s own cards, partner banks’ cards, loyalty cards and other closed-loop card offerings.
- A successful digital payment strategy would require that coupons, offers, loyalty and rewards capabilities are integrated throughout the payment and shopping experience across all touch points and channels.
- Mobile payments should be part of the larger effort of digitizing banks’ operations.
- Banks should provide interoperability and seamless omnichannel experience across digital channels whether the customer is shopping from a desktop, mobile or in store. This calls for the transformation of current organizational and operational frameworks and the enhancement of the payments infrastructure.
- An ideal digital wallet offering would include payment cards, coupons, loyalty cards, etc. offering a unified mobile payments channel/product across business lines.
The need for a Code Halo approach becomes more important. The proliferation of wearable technologies such as smartwatches, glasses and health tracking devices will allow banks greater insights into their customers' lives than ever before. At present, running algorithms on customer payment data is allowing banks to identify patterns of spend behavior. CapitalOne uses algorithms on customer card transactions to determine where else customers of a given retailer are most likely to spend money. Similarly, American Express uses data from 90 million cards in over 125 countries to gauge the spending behavior of consumers and businesses and track developing trends. Going forward, Code Halos will allow banks to track evolving customer habits and preferences. These will in turn enable banks to offer personalized products and services based on channel usage and payment behavior. Importantly, this will allow banks to compete on code and differentiate their offerings from the digital disruptors.

Focus on Tokenization, Security and Privacy
To address the security concerns related to digital payments, it is imperative that the two primary members of the ecosystem, merchants and consumers among millennials and gen-X customers used to the experience offered by Google and Apple.

In an open ecosystem, it will be up to the customer to choose the servicing apps of the bank or a third-party provider. The open nature of the ecosystem means banks will have to compete harder to retain customers, but it also gives them the best chance to fight the constantly innovating digital disruptors. Banks will be able to launch their own app stores, driving traffic away from the Google and Apple platforms. Early successful adopters of open APIs include Visa, MasterCard, PayPal, Dwolla and the payments gateway, Braintree. Some banks have gone a step further. For example, in 2014 Spain’s Banco Sabadell invited developers to a “hackathon” to create apps for managing personal finances and initiating payments.

Enable Code Halo Thinking
The growing number of digital touchpoints, combined with advanced analytics, allows banks to create unique profiles of their individual and institutional customers based on their Code Halos. As customers become more socially connected, the need for a Code Halo approach becomes more important. The proliferation of wearable technologies such as smartwatches, glasses and health tracking devices will allow banks greater insights into their customers’ lives than ever before. At present, running algorithms on customer payment data is allowing banks to identify patterns of spend behavior. CapitalOne uses algorithms on customer card transactions to determine where else customers of a given retailer are most likely to spend money. Similarly, American Express uses data from 90 million cards in over 125 countries to gauge the spending behavior of consumers and businesses and track developing trends. Going forward, Code Halos will allow banks to track evolving customer habits and preferences. These will in turn enable banks to offer personalized products and services based on channel usage and payment behavior. Importantly, this will allow banks to compete on code and differentiate their offerings from the digital disruptors.

Crypto-Currencies
Despite the mostly negative coverage they have received in the past few years, cryptocurrencies are among the top disruptions in the payments landscape—and they are gaining popularity. A survey by Ponemon Institute and HP found that 79% of U.S. consumers planned to support digital currencies such as Bitcoin in the future. Moreover, 80% of the respondents expect digital currencies to overtake paper currencies in the future. There are more than 580 different cryptocurrencies on the market right now vying for the top spot, with Bitcoin leading the pack.

Some prominent banks have taken an interest in Bitcoin’s distributed ledger-based approach known as Blockchain technology for generating efficiencies and security improvements in payments. Crypto-currencies hold the potential to transform payments, especially when combined with mobile P2P payments. The Bank of England observed as much in its recently published analysis. Given this untapped potential of cryptocurrencies, U.S. banks will do well to make provisions for supporting these currencies in their future digital payments offerings. They are also in a position to provide value-added services in the crypto-currency ecosystem.

Current Trends in Crypto-Currencies
- Slow but steady progress in adoption.
- Prone to price volatility.
- Regulatory uncertainty as regulators continue to debate.
- Alternative applications being researched.

Risks and Challenges
- **Consumer adoption**: Price stability, trust in service providers and a compelling value proposition will be the keys for boosting adoption.
- **Regulations**: There is a need for a universally defined regulatory framework and to address concerns over money laundering and customer protection.
- **Technological innovation**: Information system risks are currently very high; transactions cannot be reversed; and the current technology architecture is prone to phishing and malware attacks.
consumers, feel secure in accepting and making digital payments. From a merchant’s perspective, tokenization and encryption of the payment information has helped mitigate breaches while the payment information is at rest and also while it is in transit to the payment processors. While tokenization and encryption is considered a niche add-on feature, we believe very soon it will be commoditized and become the norm. For consumers, a multifactor authentication mechanism could be the one thing that expands the size of the digital payments pie. The authentication product from Encap Security is a solution that seems to have found the sweet spot between security and user experience.

Focus on User Experience Design
One of the key differentiators for digital disruptors is the user experience that they provide across touchpoints. Achieving an engaging, personalized and contextual digital user experience requires banks to approach design from an end-to-end - people, process and technology - perspective. To this end, banks will have to reimagine how they interact with customers, using the possibilities generated by next-generation digital technologies and the associated business practices. Importantly, the digital experience should be designed to seamlessly engage the customer across banking channels without any kind of rework or loss of information. A poorly designed authentication system with a bad user experience, for example, could boomerang.

Looking Forward: Recommendations
• Adopt an open-platform approach to digital payments that allows for easy integration with service providers, banks and merchants and makes the platform(s) scalable and acceptable to partners.

• Future-proof the platform(s) by designing them to be flexible, scalable and modular to adapt to a continuously changing landscape.

• Pursue a collaborative approach as more partners mean more value-added services, broader market acceptance and a deeper set of features.

• Employ an agile approach to product development that allows for quicker market feedback and continuous evolution.

• Design the mobile wallet strategy considering millennials and gen-X-ers as primary target customers.

• Embed touchpoints throughout the payment experience to increase customer engagement and create monetization opportunities.

• Create well-defined authentication capabilities and risk-management strategies.

• Privacy of information - in the apps, in the cloud and with partners - should be accounted for throughout the product lifecycle and the partner selection process.

• Develop a clear tokenization strategy keeping in mind its future implications and potential future use cases.

• User experience design should be simple, intuitive, clutter-free, frictionless and uniform across channels.

• Build big data analytics capabilities that leverage structured and unstructured data to generate useful insights and enhance risk management.

• Enable mass personalization and rich data visualizations leveraging analytics capabilities.

• For a mobile wallet, build an effective and contextual coupons, offers, and loyalty and rewards strategy to increase customer engagement and market share.

• Develop a social media roadmap to engage customers, provide new value-added services and enable payment touchpoints in the social media platforms.
Quick Take

A Framework for Prioritizing Mobile Wallet Features

**Base Features** are the hygiene features that every wallet will have and do not require significant sophistication.

**Quick wins** are the features that typically most wallets will have as they have high business value and require low platform sophistication.

**Differentiators** are the features offered by market leaders, which require mature and sophisticated processes, technology and infrastructure capabilities. The greater the number of differentiators, the better the product value proposition.

**Money pits or future winners** are the features that require high platform sophistication and do not offer immediate significant business value. Market leaders will look at features in this quadrant and try to come up with ways to offer them so that their business value is unlocked and thus transition them to the differentiator quadrant. Such transitional features could establish market leaders as true innovators and grant them significant competitive advantage.

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**Footnotes**


Ibid.


Ibid.

**About Cognizant**

Cognizant (NASDAQ: CTSH) is a leading provider of information technology, consulting, and business process outsourcing services, dedicated to helping the world's leading companies build stronger businesses. Headquartered in Teaneck, New Jersey (U.S.), Cognizant combines a passion for client satisfaction, technology innovation, deep industry and business process expertise, and a global, collaborative workforce that embodies the future of work. With over 100 development and delivery centers worldwide and approximately 218,000 employees as of June 30, 2015, Cognizant is a member of the NASDAQ-100, the S&P 500, the Forbes Global 2000, and the Fortune 500 and is ranked among the top performing and fastest growing companies in the world.

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