Leveraging Big Data and Customer Relationships
How Banks Can Benefit from the Mobile Wallet Opportunity
Leveraging Big Data and Customer Relationships: How Banks Can Benefit from the Mobile Wallet Opportunity

When we think about companies pioneering innovative ways to strengthen customer relationships through data, we tend to think of online retailers like Amazon or eBay that track consumer activity on their websites and offer personalized recommendations based on that activity.

But while these “e-tailers” may be at the forefront of mining customer data for one-to-one marketing opportunities, they are actually working at a disadvantage, because they have access to relatively limited data about each consumer.

The real kings of customer data are banks. And yet, they are doing little with it. At the same time, the volume, variety, and velocity of potentially valuable data is growing exponentially – from both internal and external sources. This “Big Data” holds vital information, but it historically has been difficult to aggregate, digest, manage, and utilize in real time.

This is of increasing concern to banks as more non-bank competitors, including PayPal, E*TRADE, Google, Quicken, and Apple, gain inroads to the financial services market – and in the process, consumers’ loyalty and wallets.

The threat to banks is clear. However, new technologies are arriving that enable banks to harness the power of Big Data to win back the hearts and minds – and wallets – of customers.

This white paper explores the risks and opportunities retail banking faces today, and how Big Data can help them reconnect with their customers via the mobile wallet to strengthen retention and build their businesses.
Banking today: new threats, new competitors, new opportunities

For generations, banks had virtually complete control of the retail financial services business. However, in recent years, due to deregulation, the growth of Internet commerce, innovative new business models, and lower barriers to market entry, more non-traditional competitors have emerged.

For example, in just 12 years, PayPal has become a $4.4 billion global financial services provider offering student accounts, credit and debit cards, and revolving credit. E-Trade has built a similar portfolio of offerings upon its core stock brokerage business to generate $2+ billion in revenues. Apple is leveraging its iPhone and iTunes franchises to launch its Passbook mobile payment system. Meanwhile, mobile payment start-ups, such as Square, LevelUp, and Dwolla, are pioneering new services that offer alternatives to the traditional bank/merchant credit/debit card model.

These challenges to the banking industry’s hegemony are compounded by the need to comply with new regulatory mandates, such as Basel III and the Dodd-Frank Act. These regulations are having the effect of increasing banks’ capital requirements, reducing their leverage, requiring real-time analytics to assess risks, and limiting the fees they can charge for debit card transactions. As their profit margins on retail banking are being squeezed, banks are also incurring considerable IT and resource costs to ensure compliance with these regulations.

Meanwhile, the relationships between banks and their consumers are at greater risk. According to J.D. Power and Associates, consumer sentiment toward banks declined steadily from 2007 to 2011, and as the migration from in-branch banking to online banking continues, banks will have fewer opportunities to build customer loyalty through personal service.

For all of these reasons, banks are increasingly vulnerable to losing their traditional role as the consumer’s primary financial intermediary – and all the business that goes with it. However, a new opportunity is emerging that could reverse that trend: mobile commerce.

The dawn of the mobile commerce era

Mobile commerce currently represents only a small fraction of all e-commerce – but that situation is changing rapidly. ABI Research predicts that $119 billion in goods and services will be purchased globally via mobile phones in 2015, representing about 8 percent of the total e-commerce market.

A big part of that growth is due to the growing adoption of smartphones, which are required to perform mobile commerce transactions. That upward trajectory will continue:

- Today, half of all US adults are smartphone users1.
- NFC technology – key to “tap and pay” mobile payments – will be included in 50% of smartphones by 20152.
- One in four US consumers will use NFC-enabled devices to pay for goods in-store by 20173.

1 Forrester Research
2 Gartner
3 Juniper Research
The era of mobile commerce is dawning, and as of now, the market remains wide open. But who will the mobile commerce winners be?

**Banks’ unique advantage in mobile commerce**

Many industry experts believe the most successful mobile commerce providers will be those that offer the consumer the best incentives to use their mobile payment solutions. Those incentives will include support for couponing and existing customer loyalty programs, but also compelling, personalized offers for each consumer. And that’s where banks have several distinct advantages in the mobile commerce world:

**Banks are consumer data-rich.**

Banks have more data about their customers than companies, such as Google and Amazon, that have revolutionized consumer intelligence and one-to-one targeting. In addition to Web clickstream data and data from social networks such as Facebook, banks possess personalized data on credit card purchase histories and buying preferences. Enterprise applications such as CRM and ERP provide additional sources of consumer data for banks. Banks may also get access to large amounts of loyalty program data from merchants. And with the growth in mobile banking, banks also possess contextual data, such as consumers’ locations when they make purchases. Together, these data sources can provide a clear, detailed picture of each consumer’s interests, habits, and preferences.

**Banks have a local presence.**

Unlike online competitors, banks are part of the local community and economy, with a retail presence, usually at multiple locations. This gives them a unique opportunity to leverage their relationships with consumers and merchants in their neighborhoods.

**Banks are more trusted than their competitors.**

Most people would rather entrust their financial transaction data to a regulated, FDIC-insured bank they already work with than a faceless online vendor with little accountability or oversight. According to Lexis Research, “Over 48% of consumers trust banks the most as their mobile banking provider, when compared to other providers such as mobile operators, retailers and technology companies who are all trying to win the war of mobile wallet.”

**Bank customers are mobile-ready.**

According to Forrester Research, 47 million people already use mobile banking in the US. That number is expected to grow to 108 million by 2017 – nearly half of all US bank account holders. These users are comfortable performing financial transactions on their mobile devices and many will welcome the mobile wallet.
What will it take to succeed?

With all of these advantages, banks are well positioned to capture more than their fair share of the mobile wallet. But to do it, they will have to execute on all of the following imperatives:

**Get Big Data organized to better understand customers.**

Banks possess a vast treasure trove of structured and unstructured customer data that Google and PayPal do not, but most banks have had no way of turning it into actionable intelligence.

**Deploy technology that supports real-time understanding of customer preferences for more relevant one-to-one segmentation and targeting.**

When it comes to the mobile wallet, data is only as useful as it is personalized, contextual, and targeted. Most banks currently lack both the technology and the human resources to perform real-time data analysis. They need a way to automate the process, using machine learning to deliver near-real-time recommendations to ensure that timely opportunities are not missed.

**Deploy mobile wallet products before others gain an advantage.**

Timeliness is key in the battle for the mobile wallet. Banks that move quickly will be more likely to capture and keep users than also-rans.

**Develop and take greater advantage of merchant relationships.**

To get consumers to use the bank credit and debit cards in their mobile wallets, banks must take advantage of their collaborative relationships with their merchants. Working together, they can develop one-to-one marketing programs that help drive consumers to stores to use their mobile wallets and maximize their shopping baskets.

**Target customers individually with relevant, personalized offers.**

This is the holy grail of mobile wallet solutions. Unlike “shotgun approaches,” such as newspaper coupons or mass emails with offers that are often irrelevant or unwanted, the mobile wallet has the capacity to deliver individual offers to each consumer based on that person’s specific preferences, buying patterns, location, and more. These offers are inevitably more meaningful and compelling. Consumers are more likely to welcome and act on them.
The rewards

Banks can expect the positive impact of a successful mobile wallet strategy to be both immediate and lasting. They include:

- Greater profitability through fees generated by increased credit and debit card usage
- Enhanced customer engagement, loyalty, and retention
- Closer and stronger business relationships with merchants
- Increased cross-selling opportunities for other bank products and services
- A competitive advantage in attracting new customers
- A more visible, active, and recognized role in the financial lives of retail banking customers

Barriers to success

As tempting as the mobile wallet opportunity is for banks, there can be significant barriers to success that have the potential to derail their efforts. These include:

**Multiplying silos of operational data.**

There are often hundreds of data sources in a typical bank – and the number keeps growing as banks consolidate and expand. After every merger or acquisition, they add new systems and many more data sources into their IT infrastructure. Each system and data store holds different information and offers only a limited view of the customer. The data is often stored in multiple, incompatible forms, including relational databases, XML data, data warehouses and enterprise applications, such as ERP and CRM. This fragmented view prevents banks from fully knowing their customers and their needs.

**A lack of real-time access and analytics.**

The mobile wallet depends on access to and analysis of data in real time. Most banks lack the technological means to analyze real-time data and immediately generate personalized recommendations for each consumer. Without an automated recommendation engine that can deliver precise targeting, a mobile wallet initiative will fail to achieve its full potential.

**A lack of Big Data expertise.**

Many banks do not currently have the organizational expertise and technological skill sets to address the complexities of managing massive amounts of structured and unstructured data collected from multiple sources, both internal and external.

If these inhibiting factors are not addressed, banks will be unable to understand and act on data. They will have limited agility to pursue new business opportunities or counter emerging threats. And most importantly, they will not be able to engage their customers as they should – across all touch points. Only when that level of engagement is achieved can banks hope to build stronger, closer, and more lasting customer relationships.
The role of Big Data

The single most important key to seizing the mobile wallet opportunity is being able to make sense of Big Data. That’s a huge and growing challenge for several reasons:

- The volume of data is massive and growing. According to CSC, enterprise data storage reached 1 exabyte in 2012 and will exceed 14,300 exabytes by 2015.
- The velocity of data is accelerating as more inbound data comes from live streams and other high-velocity sources.
- The variety of data and data sources is staggering – internal, external, structured, and unstructured.

Relevant data spans everything from customer records in a bank’s SQL database to that person’s social media tweets. Credit and debit card purchase transaction information is obviously key, as is merchant loyalty program data, geo-location info, Web searches, Facebook posts, Website visits, and more.

When these data points are brought together, they form a detailed, 360-degree view of that customer – his or her preferences, habits, likes, and needs – all in real time.

Hidden within those vast amounts of Big Data are nuggets of consumer insight, including:

- How and where a person shops in a typical week (including web transactions)
- The influence of social media on a person’s purchases
- The percentage of purchases a person makes via the mobile channel
- How often, and where, a person eats dinner at restaurants
- What a person’s hobbies and interests are
- How much a person travels for business or pleasure
- What a person’s regular or impulse purchases are
- How price-sensitive a person is
- Whether a person prefers discounts or rewards
- How much a person takes advantage of loyalty program offers
- What kinds of products a person needs an incentive to purchase
- And, even, what their friends are purchasing

Armed with these and other, even more specific insights, banks and their merchant partners can deliver targeted, personalized offers to the right person at the right time in the right place and in the right form – the kind of offers that motivate consumers to purchase.
Data generated through this process reveals further insights about each consumer, enabling marketers to refine and improve their offers over time for greater accuracy and effectiveness. At the same time, banks and their merchant partners become more valued resources in each consumer’s life, thereby strengthening their relationships.

The components of a Big Data customer intelligence solution

To achieve the goals described above, a Big Data customer intelligence solution should provide the following:

A Big Data repository.

At first glance, it may seem that a data warehouse could fulfill the needs of Big Data, but that’s rarely true. Most traditional data warehouses do not have access to real-time data, nor are they designed to integrate structured and unstructured data. And, if traditional technology is employed, the storage requirements are economically prohibitive. Data warehouses are also unsuited to providing answers to questions that have not been previously defined.

A better solution is a Big Data repository that continuously aggregates structured and unstructured data from internal and external data sources such as enterprise applications, credit card payment histories, loyalty programs, web clickstreams, social interactions and locational data. It should provide ready-made connectors with market leading data integration and Extract, Transform and Load (ETL) tools to aggregate data from hundreds of data sources – structured and unstructured, in multiple formats – and then store it in a native Big Data platform.

A robust customer database.

Simply storing the data in a central system does not connect the dots to provide a single view of the consumer. The data from hundreds of internal and external sources may now be in one unified platform, however, an effective Big Data solution needs to be able to identify a consumer, and correlate and match all data related to that consumer to provide a 360-degree view. These consumer profiles need to be continuously updated based on new interactions and data. The consumer profiles within the consumer database should contain:

- Customer data from the bank’s existing CRM system
- Information related to the consumer’s shopping behavior, such as credit and debit card transactions
- Activities such as web browsing and clickstreams when users visit retail websites
- Contextual data, such as location, time, and mobile device identifiers
- Social data and sentiment analysis that demonstrate the consumer’s interaction with a brand.

These comprehensive, continuously updated consumer profiles stored in the consumer database provide a 360-degree view of each consumer, rather than slices of information from each data silo. As a result, consumer-centric companies can gain unprecedented insights and know their customers better.

Consumer intelligence applications.

Consumer intelligence applications provide the analytical capabilities to make Big Data actionable. They enable banks and their merchant partners to use historical and contextual data to identify consumer preferences, spot opportunities for personalized product offers and coupons, and deliver them to the consumer.
The ability to customize and expand.

As banks and their merchant partners become familiar with the capabilities of Big Data, they should have the flexibility to adapt their solution to address other related business needs, such as fraud detection, verification of creditworthiness, sentiment analysis, and more.

Big Data in action at a Fortune 100 bank

Recently, a leading financial institution was experiencing a loss of revenue due to low coupon redemption rates, flagging customer loyalty, and low credit card usage. Bank officials saw the mobile wallet as an opportunity to address all three challenges, and in the process, increase profitability and deliver a better customer experience.

To drive its mobile wallet program, the bank chose a Big Data solution consisting of a Big Data repository for data aggregation, a consumer database to provide a 360-degree view of each consumer, tools to integrate the solution with the mobile wallet application, and applications to provide recommendations and insights to deliver personalized offers.

The first phase of the program targeted more than 250,000 mobile wallet customers. The bank and its merchant partners succeeded in doubling their coupon redemption rate – from under 3% to nearly 6%. This generated increased credit card use, a positive customer experience, and millions of dollars in additional revenue and profit.

Make sense of your Big Data and make it work for your Bank

The mobile wallet provides banks with an unprecedented opportunity to protect their customer franchise, improve customer satisfaction, strengthen loyalty, and drive revenue and profit. A Big Data solution is the key to maximizing that opportunity. To find out more, please contact us at www.NGDATA.com. NGDATA is the consumer intelligence management solutions company that empowers enterprises seeking greater customer lifetime value by enabling deep customer insights, personalized product offers and intimate customer experience to drive sales, and increase customer loyalty with a unique combination of interactive Big Data management and machine learning technologies in one integrated solution.

To discover more about NGDATA or how Lily Enterprise can help you solve your customer experience management challenges, please go to www.NGDATA.com or contact us at info@NGDATA.com.