

Mobile Commerce: A New Way to Bank and Pay

Most of the freshmen who started college this year were born in 1989. As far as they're concerned, Wal-Mart has always been a larger retailer than Sears and has always employed more workers than GM. They get much more information from Jon Stewart and Stephen Colbert than from the newspaper. High definition television has always been available, and they grew up with bottled water. They have never "rolled down" a car window, and avatars have nothing to do with Hindu deities.

These are just some of the 'fun facts' about the Class of 2011 highlighted in Beloit College's annual Mindset List, which attempts to illuminate the worldview of today's 18-year olds. Not surprisingly, many of the attributes on the list relate to technology: these students have always had access to the Internet (and high speed access at that). Online networks like Myspace and Facebook rule their social world. Cell phones and integrated wireless devices are basic life necessities. They are totally connected at all times.

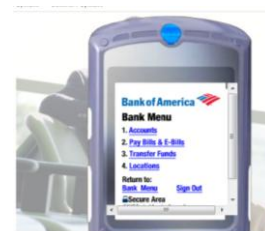
In the banking world, a new wave of technology is rapidly approaching that will capitalize on the technographic shift taking place, and it has the potential to revolutionize how consumers conduct their banking activity and pay for goods and services. Mobile commerce is quickly becoming a reality for both banking and payment activities, and every player across the financial services value chain must take notice.

If you turn on your TV, you can't help but see the commercials demonstrating the numerous features and functions of the new Apple iPhone. Although the technology behind many of these capabilities has been in place for some time, the release of new products such as the iPhone is enhancing awareness of mobile capabilities and changing how the general public thinks about what they can do with their mobile phones. This is good news for financial institutions (FIs) and others within the financial services industry looking to push mobile commerce—which includes both mobile banking and mobile payments—into the mainstream.

Mobile Banking

The first step in the movement towards mobile commerce has been the introduction of mobile banking, which enables FI customers to conduct a variety of banking transactions using a mobile phone.

Mobile Banking Examples



Functionality

Mobile banking offers many of the same services that are currently available through Internet banking. Currently, the most commonly offered mobile banking functions include:

- Balance and transaction inquiries
- Bill pay
- Funds transfer between accounts
- ATM and branch locator
- Email/text alerts
- Click-to-dial-customer service

As it evolves, mobile banking functionality will likely increase its resemblance to Internet banking, until the two offerings are virtually identical.

Technology

Many FIs are piloting and/or launching mobile banking applications, including large players such as Bank of America, Citibank and Wachovia. As these FIs develop their offerings, they are using one of three primary technologies: WAP, Applets, and Short Message Service (SMS). Each technology has its own advantages and disadvantages, but all enable the same basic functionality.

Mobile Banking Technology

Method	Pros	Cons
WAP	<ul style="list-style-type: none">■ Easy to understand for current IB users■ Does not require user to load anything onto phone	<ul style="list-style-type: none">■ Requires data plan or fees per minute of use■ Displays vary by mobile device and do not always render as expected■ Buttons and keys differ by device
Applet	<ul style="list-style-type: none">■ User friendly access■ Likely to be pre-loaded on the phone	<ul style="list-style-type: none">■ Requires data plan or fees per minute of use■ May require the user to load the applet
SMS	<ul style="list-style-type: none">■ Many are already comfortable with text messaging■ No data plan is required	<ul style="list-style-type: none">■ Cumbersome user interface■ Requires text messaging plan or fees per message■ Bill payment integration could be cumbersome

Future Outlook

Mobile banking is poised to grow, with current online banking users being the most likely adopters. Industry estimates project the number of mobile banking users will reach 50-100MM by 2016—nearly equal to the number of Internet banking users in the U.S. today. The biggest inhibitor to this growth is consumers' concern regarding security. Our recent research indicates that consumers are extremely wary of bank fraud and the security of financial information transmitted electronically or stored on handsets. These fears must be addressed before this technology will be fully adopted.

Mobile Payments

Another big movement within the mobile commerce space is the ability to make a purchase at the point of sale (POS) using a mobile handset.

Mobile Payment Examples



Technology

Although development of mobile payments lags behind that of mobile banking, but the functionality has legs and could be a big hit in the future.

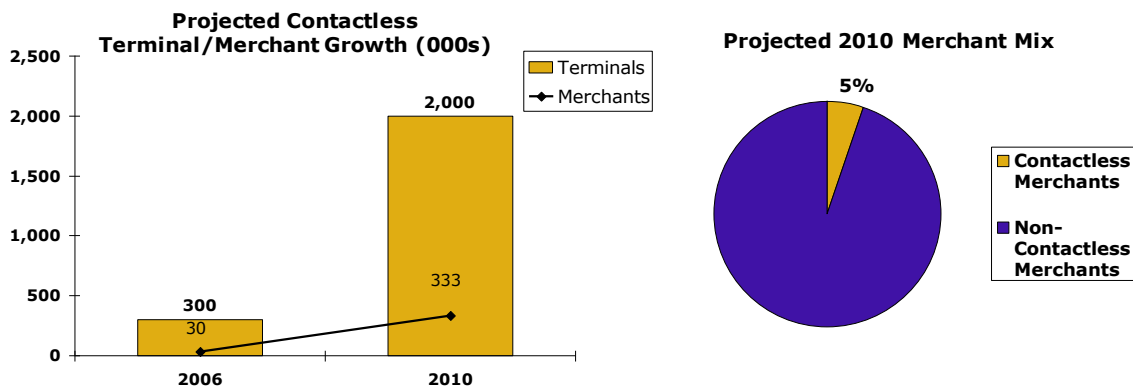
In its current configuration, mobile devices are being enabled with a near field communications (NFC) chip that can interface with the current contactless implementations like MasterCard's PayPass or Visa's payWave. Under this scenario, a single payment account (generally a credit or debit card) is loaded into a customer's phone, enabling payment through that account when the handset is waved next to an NFC reader. This technology has been piloted in multiple geographies, including New York, Atlanta, and Dallas.

Ultimately, however, mobile payments technology is likely to evolve into a full mobile wallet, where a payee could load multiple payment accounts onto the phone, such as a credit card, debit card, or closed loop prepaid card, and choose from among these accounts when making a purchase at the POS.

Barriers to Adoption

Despite the potential of mobile payments potential, there are significant obstacles currently impeding rollout and adoption, and questions remain as to how these issues will be overcome.

First, there is a lack of infrastructure in place to enable widespread use of mobile payment devices. Relatively few merchants are equipped to accept NFC payments, and even fewer mobile handsets are fitted with NFC chips. It is estimated that by 2010, only 5% of merchant locations will be able to accept mobile payments.



Source: Celent, Visa, Dove Analysis

Looking forward, a number of questions remain to be answered: Who will pay for the upgrade in infrastructure? Will merchants buy upgraded terminals or will card associations subsidize this investment to encourage adoption? Will phone carriers absorb the costs of adding NFC chips to their phones or will these costs be pushed onto consumers through higher phone prices? Although the answers to these questions remain to be seen, they will be deciding factors in the future of mobile payments.

In addition to the burden of cost, there is also the issue of competition and coordination. There are many players involved in the mobile payments ecosystem, all of whom have competing interests that need to be reconciled. Mobile payment products will likely be offered through FIs, who will in turn partner with phone carriers and payment networks to enable functionality. This presents a number of potential problems: Who owns the customer relationship? Who provides service and support if a customer experiences problems making a payment? How will mobile payment revenues be distributed among those parties involved? Each of these questions will need to be addressed in order for mobile payments to take off.

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Although mobile commerce is still in its infancy, it has a solid base from which to grow. Awareness of new capabilities is increasing and customers are embracing new functionalities available on their mobile phones. With these pieces in place, it is only a matter of time before mobile commerce moves into the mainstream, and financial institutions need to begin planning now for this new technology or risk lagging behind their competitors. Because it is our bet that for the Class of 2037, among the items on Beloit College's Mindset list will be: "They have always been able to manage their finances and make purchases with portable devices."

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Founded in 1981, Dove Consulting, a division of Hitachi Consulting, is a Boston-based consulting firm specializing in financial services, with a particular focus on payments strategy and payments compliance. Dove's value proposition—deep expertise for immediate value, sincere collaboration with clients, and the delivery of clear results—has enabled the firm to become a highly valued and trusted advisor to leading financial institutions, networks, processors, and other providers all over the world.

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