

# Mobile-Money Creates New Revenue Streams

Pankaj Shroff  
Director Technology Strategy,  
Tellabs

## Major Roles Await Operators in the Mobile-Money Market.

### Overview

The emerging mobile-money market promises some very lucrative opportunities, both immediate and over the long term, for mobile operators around the world. By making it possible for subscribers to use their smartphones, tablets, cellphones or other wireless devices to obtain secure access to a wide variety of financial services, operators not only can create new revenue streams but also offer “sticky” services that reduce churn and increase average revenue per user (ARPU).

However, mobile money is a very fragmented market right now, in terms of service types, geographic regions, enabling technologies and participating players. Consequently, leading operators are evaluating all aspects of the market in an effort to determine their individual business strategies and to select their preferred technological approach to supporting those strategies.

Currently, the market itself resembles a pyramid consisting of 3 layers. Within each layer, numerous puzzle pieces wait for the right combination of players and technologies to assemble them into a cohesive and profitable whole. Although there clearly are opportunities for mobile operators at each layer, some are relatively easy to seize in the near term, while others will require longer-term strategies on the part of operators.

### The Market Layers of the Mobile-Money Pyramid

Today, from the base of the pyramid to the tip, the 3 segments of the mobile-money market are: mobile banking for the unbanked; mobile payment services; and mobile commerce. Not surprisingly, these distinct segments stem from the different levels of economic development around the world, as well as the broad range of mobile-service penetration rates.

**Mobile Banking for the Unbanked** is the most mature portion of the market. In most undeveloped and some developing nations, people’s access to brick-and-mortar financial services is negligible or non-existent. However, mobile penetration is quite high, typically ranging from half to nearly three-fourths of the population. Consequently, many mobile operators have moved into the vacuum created by the lack of banking infrastructure and created a distribution network of mobile retailers through which they reach customers. Their subscribers rely heavily on the SMS function of their 2G phones to obtain a wide range of basic financial services: putting cash into their mobile accounts and getting it out; making remittances, or person-to-person transfers of money, often across national borders; paying bills; and even receiving their paychecks. Already widespread in areas such as Latin America, Southeast Asia and Africa, mobile banking for the unbanked nevertheless still shows significant growth potential around the world.



Shoppers can compare prices by scanning tags with their smartphones.

The middle of the pyramid comprises **Mobile Payment Services**, and international remittances make up the biggest portion of that segment. Millions of individuals work outside their own nations and send money to families back home — with “home” usually being developing countries. Although some of these countries, such as India and Brazil, have rapidly-growing economies, their citizens still use cash for most of their financial transactions. Typically, about half the population is “partially banked,” meaning, they have some access to traditional financial services; however, 50% to 70% have mobile phones. According to a study by Aite Group, the value of worldwide remittances in 2007 was nearly US\$340 billion, and Aite researchers at the time predicted that it would exceed US\$450 billion by 2010. Consequently, when it comes to growth potential, mobile-wallet services constitute “the sweet spot” of the mobile-money market right now.

At the tip of the pyramid is the **Mobile Commerce** segment, which is just beginning to take shape in developed markets. In those nations, more than 95% of the population is fully banked. Basically by replacing cash, checks and credit cards, mobile commerce empowers customers with properly equipped smartphones and other advanced wireless devices to go online to buy both real and virtual goods and, in some locations, to make “tap-and-go” purchases at brick-and-mortar retailers. If this segment is to grow sufficiently to become an attractive target for mobile operators, merchants and retailers must incorporate within their electronic networks point-of-sale devices that are capable of supporting mobile commerce transactions.

## Mobile Operators Can Start in the Middle, Build Upward

As noted earlier, the sweet spot for growth in the mobile-money market is in Mobile Payment Services, so that segment obviously presents the best near-term opportunity for operators. The international-remittances arena, already large, is becoming larger still every year, primarily because the ability to transfer money quickly and securely is absolutely essential to the target customer base. By addressing that segment first, operators can create new revenue streams which, over time, will enable them to begin launching higher-margin mobile-commerce services, that is, those at the tip of the pyramid.

Of the Mobile Commerce Services emerging at the top of the market, *online* mobile commerce promises ultimately to present the biggest and most lucrative opportunity for mobile operators. As opposed to in-person retail commerce, online or virtual commerce occurs when a subscriber uses a mobile device and a credit card to purchase real-world goods, say, a product sold by Amazon.com. A subscriber also can use a mobile device and a pre-paid, credit-card or “bill-me-later” account to purchase virtual goods, for example, additional poker chips in an online card game.



Shoppers can use a smartphone with an embedded NFC chip to enable mobile payments, transport and event ticketing.

Incidentally, the virtual-goods market in and of itself presents a huge opportunity for mobile operators. According to an *Inside Virtual Goods* report released last fall, the virtual-goods market in the United States alone will be worth US\$2.1 billion in 2011, a 40% increase over its 2010 value of US\$1.6 billion.

Mobile Payment services, the middle layer of the pyramid, and the initial part of Mobile Commerce Services, at the tip of the pyramid, are where the biggest opportunities lie for mobile operators. To participate in those arenas, they first need to put in place the appropriate technology — a mobile-payment platform in the network. The next critical step is to integrate themselves with the remittance, gaming and social-networking services that are available today both online and off.

Operators can solidify their role in the online mobile-commerce arena if their networks can support and simplify the types of *discretionary* spending mentioned in the above examples. Today, the biggest obstacle to such expenditures is the fact that the subscriber must juggle the mobile device and the credit card to make an impulse purchase. In other words, the customer has to pull out his or her wallet, extract the credit card and read out, type in or scan the card number into the mobile device. However, any customer willing to go through that awkward process probably has decided beforehand to buy a specific product and has conducted a Web search for the best deal on that product; there is nothing discretionary or impulsive about such a transaction.

Yet if a mobile operator’s network can eliminate that juggling act, the chances are pretty good that within a few years, more subscribers in developed nations will turn to mobile online commerce for both planned and impulsive purchases.

Operators obviously are quite familiar with both subscription-based (“bill me later”) and fee-based (pre-paid) voice and data services, so they already have in place the systems required to manage such billing models. Further, by making both types of online mobile-commerce transactions easier for subscribers, mobile operators clearly make it easier for themselves to participate and succeed in that market segment.

## ‘Tap-and-Go’ Mobile Commerce Market Still Up for Grabs

The other aspect of the Mobile Commerce segment sitting atop the market pyramid is based on tap-and-go retail transactions. Beginning to occur more frequently in developed, i.e., fully-banked, nations, tap-and-go transactions enable subscribers to pay for retail goods by holding their mobile devices within a few inches of a special terminal at the retail counter. After “reading” the mobile device, which must be equipped with smart card or near field communications (NFC) technology, the terminal links to the subscriber’s credit-card or bank account and deducts the amount the subscriber is paying for the product or service.

The tap-and-go arena is a particularly interesting one, simply because it is not yet clear which players will be the likely winners. Visa and MasterCard, the 2 dominant credit-card companies hold very strong positions, for now at least, simply because they “own” most of the retail-merchant networks; the point-of-sale devices at nearly all retail locations read both of those cards.

Nevertheless, over-the-top companies are emerging as strong competitors. According to news reports, Apple plans to launch tap-and-go mobile-payment capabilities sometime this year, via NFC chips embedded in iPhones and iPads; in support of that effort, the company has developed a prototype NFC-compatible payment terminal. Apple reportedly will manage such transactions through its iTunes store. This means, of course, that Apple no longer will have to pay fees to Visa and MasterCard for processing subscribers' credit-card transactions through the iTunes Store. By eliminating credit-card companies from the mobile-commerce transaction chain, Apple could significantly strengthen its own position in the competitive mobile-commerce segment — and its bottom line. Google is rolling out similar NFC capabilities in its Android operating system.

Given that tap-and-go mobile commerce still is in its infancy, with multiple types of players jockeying for market share, some potential players, including mobile operators, may consider partnerships as the best means to compete. In fact, AT&T Mobility, Verizon Wireless, and T-Mobile announced late last year that they are jointly building a mobile-payment network, dubbed "Isis," and have welcomed two major financial companies into their joint venture. According to the announcement, Discover Financial Services will help develop the Isis network infrastructure, while Barclaycard US, a unit of Barclays, will be the network's first credit issuer. However, the 3 operators also noted in their announcement that the Isis mobile-commerce network "will be available to all merchants, banks and mobile carriers." This initial foray by mobile operators into the mobile-commerce segment clearly is a harbinger of more developments to come in the NFC-based tap-and-go payment market.

Regardless of how this particular market niche ultimately evolves, mobile operators likely will assume important roles. After all, because their networks make possible every online transaction, it stands to reason their networks also can make possible every type of online payment.

#### Next Step:

Visit [www.tellabs.com/mobile](http://www.tellabs.com/mobile) to access more white papers and case studies on how Tellabs is advancing the smart mobile Internet. If you have a question about Tellabs mobile solutions, please email [ask@tellabs.com](mailto:ask@tellabs.com).

#### North America

Tellabs  
One Tellabs Center  
1415 West Diehl Road  
Naperville, IL 60563  
U.S.A.  
+1 630 798 8800  
Fax: +1 630 798 2000

#### Asia Pacific

Tellabs  
3 Anson Road  
#14-01 Springleaf Tower  
Singapore 079909  
Republic of Singapore  
+65 6215 6411  
Fax: +65 6215 6422

#### Europe, Middle East & Africa

Tellabs  
Abbey Place  
24-28 Easton Street  
High Wycombe, Bucks  
HP11 1NT  
United Kingdom  
+44 871 574 7000  
Fax: +44 871 574 7151

#### Latin America & Caribbean

Tellabs  
Rua James Joule No. 92  
EDIFÍCIO PLAZA I  
São Paulo – SP  
04576-080  
Brasil  
+55 11 3572 6200  
Fax: +55 11 3572 6225

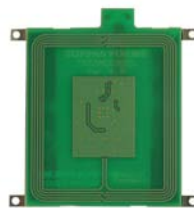
## Identifying the Right Mobile-Payment Platform

Savvy operators understand that if they plan to compete successfully in the mobile-money market, they will have to invest in the appropriate mobile-payment platform. Although it is too early in the market's evolution to know precisely what features and functionalities will be necessary, operators understand they will need, at the very least, a mobile-payments platform that they can integrate easily with their delivery of mobile-broadband services. Such integration is essential if they want to participate simultaneously in all types of transactions that occur in the middle and top layers of the mobile-money market pyramid.

## The Winners Are Yet to be Determined

Arguably, mobile operators' success in competing in the mobile-money market will depend, both in the near and long term, not just on technology but also on marketing. Specifically, they face the challenge of overcoming brands such as Amazon.com, PayPal,

Google and eBay and embedding their own mobile-money offerings in subscribers' day-to-day activities. Operators do have an advantage in that they can offer subscribers a somewhat different value proposition in the middle and top layers of the market. Not limited to simply enabling a more immediate and convenient transaction, operators can offer their subscribers enhanced financial safety and security as well. Basically, they can say to subscribers, "why sprinkle your credit-card information across multiple sites when I can retain your information in one place, and you don't have to worry about financial and/or identity theft?"



NFC chips enable tap-and-go mobile applications

Because the market segments are quite different from one another, clearly there is no "one-size-fits-all" business model available to mobile operators — or their possible partners. Existing and potential competitors span a variety of industries, from mobile operators and handset manufacturers to banks and credit-card companies. The fragmentation within and among the 3 market segments — in terms of customer requirements, whether a banking infrastructure exists and if merchant/retail networks are in place — requires that all players cooperate if they expect the mobile-money market to grow significantly. According to *Mobile Money: An Overview for Global Telecommunications Operators*, a 2009 report by the Ernst & Young Global Telecommunications Center, the market winners have yet to emerge, but "the party which owns the customer will have a higher chance of success."