



Mobile Payments: Lost in Translation?

The Immediate Opportunity Is in Non-NFC, Emerging Markets

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02/03/2009

Japan has brought us sushi, Manga comics and cool superhero-themed street fashion. But ironically, there's been so far little success in importing something much less niche-oriented than raw fish: namely, mobile payments. The reason? Sheer complexity.

In Japan, consumers use their mobile phones to pay for all kinds of tangible goods and services, from the fish-flavored chips in vending machines to clothes to books. It's a technology with appeal due to its user-friendly simplicity. A chip inside the handset contains multiple, encrypted forms of information, like bank account numbers, balances, credit information, personal IDs and even subway pass info. Users simply wave their devices in front of infrared readers and they're off to the races. What's not to love?

It would seem this is ripe for importation stateside. In fact, trials in New York, San Francisco and other places have showed promising consumer interest in the technology. But rather than grow in deployment, this idea, known as near-field communications, or NFC, seems to have gotten lost in translation.

"There are many business and market factors which can inhibit the success of NFC payment solutions [here]," explained Humera Malik, director of product line management at [Redknee Solutions Inc. \(RKN.TO\)](#), which has a mobile wallet payments solution called Mobile Money in commercial deployment in the Middle East and Africa. "There is a need to reach agreements between financial institutions, network operators, retailers and handset vendors in terms of creating the ecosystem to enable widespread adoption and establishing the business model."

Put simply, NFC is simply a complex initiative to implement in a country like ours, while Japan's adoption of NFC was a different animal. First introduced by [NTT DoCoMo \(DCM\)](#) there in 2004, the carrier had more than half the population as its subscriber base and was able to use its clout to negotiate with the one or two major financial institutions on a standard revenue share. On the technology front, when [KDDI](#) and [Vodafone Group plc \(VOD\)](#) launched the same service based on the same [Sony Corp. \(SNE\)](#) chip that DoCoMo was using, it simplified the interoperability and made for a better case for retailers to adopt the technology.

In contrast, in the United States there are several competing technologies that could be used for NFC. Also, there are the revenue share issues: a credit card company could charge users a fee for the mobile PoS transaction; or, the carrier could collect a subscription and then dole out

micropayments to those involved. And to scale the solution for retailers, there would need to be a middle man to take care of the secure back-end processes for settlement/clearing of funds.

Another gating factor is the multiplicity of existing PoS options. "The challenge is further complicated by the fact that these solutions are a substitute for existing established electronic payment methods in the developed market, i.e. debit, credit and stored value chip cards," said Malik. Put another way, [Forrester Research](#) says that while mobile payments promise to change online financial and retail services fundamentally, customers today simply do not see the need for the payment functionality that banks are developing.

Where mobile payments will do best in developed countries is in replacing cash transactions or enabling Internet shopping, rather than attempting to become better debit cards. That's more bad news for NFC. [ABI Research](#) says that while NFC was once the leading contender for mobile payments, the technology "has developed more slowly than anticipated, and will not offer viable large-scale mobile payment solutions for at least six years," said ABI Research senior analyst Mark Beccue.

Instead, three existing technologies — SMS, mobile Internet and downloadable mobile applications — are gaining traction. ABI calculates revenue from these types of transactions will reach about \$18 billion by 2013. "About half of all purchases made by consumers last year were made with cash," said Beccue. "Consumers would in many cases prefer cashless transactions when away from home."

Key vertical markets expected to drive adoption of this type of mobile payments are taxis, parking, movies and Internet shopping. The first three are areas in which mobile payments could replace cash transactions. Internet shopping could account for almost three-quarters of mobile commerce revenue in 2013; a further 15 percent would come from parking, with the balance split about evenly between taxi fares and movie tickets.

There are other applications for non-NFC mobile payment technologies, like money transfer. For instance, debit card processing company [eCommLink Inc.](#) has teamed with payments provider [Rechargeplus Global Ltd.](#) to combine their prepaid debit platforms with mobile and merchant applications and allow mobile access. The idea is to facilitate the hundreds of billions of dollars that are sent home each year by migrant workers. For example, those working in the shipping industry generally are paid in cash, which is both cumbersome and insecure and which only allows workers to send money when they are in port. The Recharge application allows them to send funds home from the ship via the Internet or their mobile phones any time they have access.

The economic reality on the receiving end of such services bolsters the mobile payments proposition in this case. The m-pay market in the underdeveloped world has emerged as a hot opportunity as mobile subscriptions have penetrated the unbanked masses. "In many of the developing countries where these funds are sent, there are more than four times as many mobile phones as there are laptops," said Brett Radford, CEO at Rechargeplus USA. "Mobile is one of the most prevalent, cost-effective and familiar technologies in these areas."

Redknee's Malik added that societies like those found in Africa are thirsty for a way to move beyond a cash-based system, which could turn into an international opportunity over time for all kinds of mobile payment approaches. "Increasing levels of interoperability between mobile money and mobile payment solutions between operators in high-growth markets will result in

ecosystems being formed to enable international remittances, particularly to facilitate popular remittance corridors between the developed and high-growth markets,” said Malik.