

Early results of the project, taking place in India, find that 3,000 participants utilize their RFID-enabled phones for payments more often than consumers with credit cards.

By Claire Swedberg

Dec. 30, 2009—Six months into a Near-Field Communication (NFC) payment trial being held in Bangalore, India, global finance company [Citibank](#) is finding that participating consumers use their mobile phones to pay for purchases at a higher rate than consumers using traditional credit cards. The Citi Tap and Pay project, which launched in June 2009 and is slated for completion in early 2010, involves approximately 3,000 consumers and 250 merchants. This, says Mohammad Khan, the president of [ViVOtech](#)—which supplied contactless payment software and hardware—makes it one of the largest trials of NFC RFID technology ever launched.

The pilot employs NFC-enabled [Nokia](#) 6212 phones, mobile network operator [Vodafone](#)'s wireless communications service, [MasterCard](#)'s PayPass contactless credit card system and security infrastructure, and ViVOtech's NFC wallet software, mobile coupon software, smart poster software and NFC readers. After the pilot concludes, Citibank intends to analyze the findings and make the results available to members of the industry.



Citibank's Satish Menon

Pilot participants purchase an NFC-enabled Nokia phone, which uses ViVOtech software to link the unique ID number on the phone's NFC tag with data about the customer on a Citibank back-end server.

Those taking part in the pilot buy the phone for about 5,000 rupees (\$105) at Nokia's stores, then follow prompts on the phone in order to install ViVOtech's e-wallet software (enabling them to create a credit card account linked to the phone), via a Vodafone cellular connection. A user responds to questions asked by Citibank, including his or her name and address, and creates a password. The individual can then take the phone to merchants, such as convenience stores and restaurants, and tap it against a ViVOtech NFC reader. The unique ID number on the phone's NFC chip is captured and transmitted back to Citibank's server, where the payment is credited to the user's account. He or she then receives a bill at the end of the month for a total of the charges made, as would be the case with a standard credit card.

ViVOtech is also providing smart posters containing passive 13.56 MHz NFC RFID tags, as well as the software that enables consumers to access Web-based information and services related to those posters. The tags are encoded with a unique ID number linked to data on the back-end server regarding the business or service advertised on that particular poster. Consumers can tap their phones against the smart posters to download such things as coupons entitling them to discounts toward purchases at specific stores. The posters can also be used to allow a phone user to access directions to a neighboring merchant.

Citibank Says High-Volume NFC Pilot Shows Strong Usage

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The pilot is intended to help Citibank gain customer and merchant feedback about the system, including how well it works and how it can be improved. "The pilot will also give us further concrete insight into the business model, which will govern any such large-scale NFC customer implementation," says Satish Menon, the executive VP of Citi Growth Ventures, a worldwide Citibank team organized to help launch new innovation.

This is Citibank's largest NFC pilot in the entire world to date, the company reports, and is intended to determine whether the technology works effectively in high volumes. The pilot is being undertaken in Bangalore because of its high density of tech- and mobile phone-savvy residents.

"The Citi Tap and Pay pilot is a demonstration of our belief that contactless mobile payment services will be a key lifestyle driver for our highly mobile, international and increasingly urban customer base," Menon states. With the pilot, he notes, Citibank aims to build momentum for faster and wider adoption of contactless technology for mobile phones worldwide, by developing a business model for the system. Thus far, he says, the pilot's participants have made more than 40,000 Tap and Pay transactions, and every customer who has signed up for the program has used his or her phone to make a purchase at least once. "We're also seeing that Tap and Pay customers are more active than their plastic-using counterparts."

Thus far, ViVOtech has tested its technology in 37 trials worldwide, including most recently in Dubai, using smart posters in malls. At the conclusion of the pilot, Khan says, Citibank intends to review the results with industry members. "With their support, we would then explore opportunities to further develop the mobile payments platform," Menon adds. "We believe in the limitless opportunities that such an environment presents, but also recognize the immediate challenges in terms of commercialization, cost, scalability and system-readiness."

What's more, Khan says, there may still be several more Citibank and ViVOtech pilots in the works in the coming months—not only in India, but also in other parts of Asia and on other continents.