

# Mass banking through the mobile

Move over e-governance, social services are now reaching the bottom of the pyramid through cell phones

Pragati Verma

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lakhs of pensioners in rural Andhra Pradesh, bank means a kiosk with three equipment — a mobile phone, a biometric identifier and a strip printer. Electronic bank branches equipped with these three devices are facilitating payment of two social services — Mahatma Gandhi (earlier, National) Rural Employment Guarantee Scheme (MGRGS) and National Old Age Pension (NOAP) — in many districts of the state.

Recipients don't have to trudge to a distant bank branch, but can open their own bank account, make deposits and withdraw cash through a special GPRS-enabled mobile phone and two supporting devices. In each district, several customer service points (CSPs) have been created by giving select women from local self-help groups a kit of the mobile phone and accessories. With these kits, they can process banking transactions electronically via real-time exchange of information with the bank's database at the backend. "Such services not only offer a cost-effective and convenient way of receiving payments but also serve to curb corruption among previous intermediary providers through improved documentation and transparency," says Subhash Bhatnagar of IIM Ahmedabad. Bhatnagar had recently researched service delivery models of mobile phones and traditional Internet kiosks.

Zero Mass Foundation (ZMF) is the front-end provider of these services on behalf of the Andhra government, and its six partnering banks and the technology has been implemented by A Little World. The mobile phone being used



in CSPs is enabled by a chip developed by NXP, which helps secure data communication between the phone and the RFID smart card using near-field communication technology. The biometric scanner reads finger prints, and a printer connects to the mobile phone using wireless communication.

The mobile, branchless banking experiment is gaining popularity. ZMF operates in 127 districts across 26 states in India. It has appointed nearly 6,000 CSPs, serving 15 lakh MGRGS payees and 70 lakh pensioners and nearly 70 lakh rural citizens who have opened bank accounts under the financial inclusion programme. The bulk of the accounts are in ten districts of Andhra Pradesh, but there is significant pilot-level activity in Meghalaya, Uttarakhand and West Bengal.

Such banking projects have come up

as part of the Reserve Bank of India's financial inclusion programme that permits scheduled banks to appoint business correspondents (BC) as bank agents authorised to open accounts and make deposits and withdrawals from a beneficiary account.

ZMF project is not the sole initiative in financial inclusion. Green Mobile Money Transfer, launched by Paymate, Corporation Bank and Tata Indicom, facilitates mobile money transfer for migrant workers. The service is available to migrant workers from Kerala working in Mumbai and Bangalore wanting to remit money

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back to friends and family in Kerala. This programme entails setting up no-frills bank accounts for customers needing to remit money, along with providing them other financial services that could include but are not limited to micro-credit, micro-insurance, direct government deposits and the like in the long term. Similarly, the 'Bank A Billion Initiative' of Grameen - Obopay — a joint venture between Bangladesh's Grameen Bank and US technology firm Obopay that operates in India — aims to give the masses access to affordable financial services like cross-border remittances, money

transfer, payments, savings and credit accounts.

"Mobile banking and mobile payments will act as a catalyst for achieving the finance ministry's vision of 'One Bank Account per Indian'," says Deepak Chandnani, president-Asia and Africa, Obopay Inc. RBI's plan envisages that the lead bank in each state should draw a road map by March 2010 to ensure that all villages with a population of over 20,000 would have access to financial services through a banking outlet by March 2011, for which board — approved specific plans are to be in place by March 2010. Currently, only 40% of the population has bank accounts, 10% has life covers and 0.6% has general insurance covers.

These elementary banking models for the unbanked have tasted success in countries like Kenya, Uganda and South Africa. Insiders feel that m-gov-

ernment needs to find a place as an appropriate mode of delivery for certain services within the national e-governance plan framework. It is generally more expensive to operate an Internet kiosk in rural areas than in urban areas because of the need for a power back-up, problems of maintenance of computer hardware, and the lack of broadband connectivity and trained manpower. "Typically, the cost of m-banking are a tenth of conventional banking and 40% of the e-commerce channel for a bank," says Paymate co-founder and board director Probrir Roy.

Also, mobiles will reach a much bigger chunk of the population. "Our surveys show that 41% of the current bottom of the pyramid non-owners in India, Pakistan and Sri Lanka plans to purchase a phone within two years. In contrast, only 40% has heard of the Internet and only 0.8% has used it," says Helani Galapaya of Lirne Asia.

Clearly, mobiles can be used for disbursement of payments and for pre- and post-communication between citizens and government for services like issue of certificates and licences. "M-payment of pensions and MGRGS wages is a worthy application that needs to be scaled up. However, it has been conceptualised and implemented by partners that do not have the authority and resources to alter policies, which will make a multi-way partnership work in an economically sustainable way," argues Bhatnagar.

The biggest challenge is to deliver a mobile service to rural users that can not only be viable but profitable at low levels of 'average revenue per user.' Only then can banking the poor become a rich proposition.

## The Google-Apple battle for features intensifies

Benny Evangelista

THE rivalry between Apple and Google intensified as the Silicon Valley giants pushed into each other's home turf. In separate news events, Apple — an icon of consumer electronics — bought a mobile-advertising startup, while online ad king Google began selling its own smartphone.

Apple's "on path to collide with Google," said analyst Tim Bajarin of Creative Strategies Inc. in Campbell. And with a Google — branded phone "aimed directly at the iPhone, Google could clearly become one of Apple's biggest rivals in the future."

Google unveiled its much-anticipated Nexus One "super-phone" at a packed press conference in its Mountain View headquarters.

Although Google's Android operating system has powered smart phones such as Motorola's Droid since last year, this is the first time Google has taken a page out of Apple's playbook and attempted to sell a consumer electronics device directly to the public.

Some experts see the Nexus One, which went on sale online Tuesday, as the first real challenge to the market-dominating iPhone. Apple has sold more than 30 million iPhones since 2007.

But other analysts said Apple's first foray into advertising sales with its purchase of Quattro Wireless is a sign Apple is preparing to push back at Google in a battle for ad dollars on those same iPhones and Nexus Ones, and in the future, tablet computers.

The Waltham, Mass., firm places about 4 million ad impressions a month on mobile phones. Its clients include large corporations such as Ford, Procter & Gamble and Visa.

Quattro co-founder and chief executive Andy Miller announced the deal on the company Web site using his new title — vice president for mobile advertising for Apple.

"We remain focused on delivering more engaging, relevant and useful ads to mobile devices, and improving the measurement and execution of digital campaigns," Miller wrote. "Together with Apple, we look forward to developing exciting new opportunities in the future that will benefit our customers."

Financial terms of the deal were not disclosed. Analyst Julie Ask said the deal helps Apple counter Google's November purchase of Quattro rival AdMob for \$750 million.

Apple reportedly also tried to buy AdMob but acquired Quattro for half the amount Google paid, said Ask, a vice president with Forrester Research.

"This is more about positioning themselves for future growth," Ask said.

Both Quattro and AdMob are players in the market for ads on mobile devices, and AdMob is making "a tonne of money" through Apple's huge ecosystem of iPhone and iPod Touch applications, Ask said.

Apple announced Tuesday that more than 3 million apps have been downloaded in just 18 months, while Google is looking for growth in the app mar-

ket for Android-based phones.

And those stakes are growing: According to Forrester, the US mobile-ad market will grow from \$391 million in 2009 to \$1.27 billion in 2014.

Part of that market is fuelled by shifting consumer habits — accelerated by the iPhone — that rely less on computers and laptops and more on smart phones for Web tasks such as e-mail, text messaging, social networking and surfing.

"By Apple buying Quattro, it brings a brand — new powerhouse into the market," said Krishna Subramanian, co-founder of mobile-ad company Mobclix Inc. of Palo Alto.

Analyst Rob Enderle of Enderle Group said relations between Google and Apple have hardened since August, when Google chief executive Eric Schmidt stepped down from his seat on Apple's board of directors because of conflicts of interest.

Apple CEO Steve Jobs said at the time that Schmidt's "effectiveness as an Apple board member will be significantly diminished since he will have to recuse himself from even larger portions of our meetings."

The companies have also clashed over Apple's blocking software for Google Voice from its iPhone, which sparked an inquiry by the Federal Communications Commission.

Enderle believes Schmidt was pushed out. Now Google has a phone that is "quite literally designed to break the iPhone," he said. "It's more of the anti-iPhone than the Droid was."

And with the Quattro deal, "clearly Apple is pushing back in much the same way. That's clearly Google's space. That's not something you would think was traditionally Apple."

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### FIRST LOOK

## Another new Google world: Nexus One

The phone is missing some important features that iPhone fans take for granted

David Pogue

GOOGLE sure does love shaking up the system. Remember the original Google search page? It made news because your search results popped up fast and weren't cluttered with ads. Remember when Google went public? It made news because the founders auctioned off shares to the public. Remember when Gmail came out? It made news because it offered 1,000 times the free storage space of competitors: Hotmail and Yahoo.

And now Google wants to shake up the way we buy cell phones — by letting you shop for the phone and the service independently, on a new Google Web site



(Google.com/phone).

To introduce this phone store, Google took the wraps off what may be the worst-kept secret on the Internet: a brand-new cell phone, designed by Google and made by HTC, called the Nexus One. It's pretty sweet, it advances the state of the art, and it's a welcome addition to the catalog of great app phones like the iPhone, Palm Pre and Motorola Droid.

But the truth is, the Google news this week isn't quite as earthshaking as Google seems to think it is. First, the new phone. It's almost exactly the size and shape of the iPhone. Like most HTC phones, it's bland-looking. But it's so thin and rounded, it feels terrific in your hand.

It's loaded with gleaming, attractive features. It's hard to choose which is more gratifying: the speed — instant, smooth response when you're opening programs and scrolling — or the huge, 3.7-inch touch screen, which has much finer resolution than the iPhone (480 by 800 pixels, versus 320 by 480).

There's Wi-Fi and Bluetooth, like an iPhone, but also a removable one-day battery and a camera with a LED flash, autofocus and picture settings, although the photos themselves are roughly on par with the iPhone's.

The Nexus has no physical keyboard — only an on-screen keyboard, with a handy suggestion feature that I actually prefer to the iPhone's: as you start typing a word ('unfo'), the Nexus displays an entire row of likely candidates ('unfortunately,' 'unfortunate,' 'unfolding'), which you can tap, thus saving yourself more fiddly typing-on-glass.

Radically enough, you can also dictate anywhere you can type.

your icons with tall blowing grass against a blue sky that actually darkens as the day turns to night. It's totally pointless and even distracting, but very cool indeed.

There's better integration all around: You can upload pictures and videos straight to YouTube, Picasa, Facebook and so on, for example, and you can tap a person's name and choose how you want to initiate contact (e-mail, phone, text message). And you have five "home screens" to fill with the icons of your apps (up from three on the Droid). All of these changes will soon come to other Android phones as a software update.

Despite these goodies, the Nexus is missing some important features that iPhone fans take for granted. For starters, the Google app store is much smaller

tell by touch if the ringer is off, as you can on the iPhone and Palm phones. Sadly, the Nexus One also lacks a multi-touch screen like the iPhone's. So zooming into photos and Web pages is awkward and hard to control.

Finally, the Nexus just doesn't attain the iPhone's fit and finish. The buttons under the screen (Back, Menu, Home, Search) are balky, often ignoring your finger presses completely. One of the animated wallpapers freezes the phone with a message that says: "Sorry! The application Android Live Wallpapers has stopped unexpectedly. Please try again."

(Note to Google: I did. The same thing happened.)

But maybe it doesn't matter if the Nexus One isn't nirvana. Google says it's only the first Google phone of many, with one store to sell them all.

The idea of the Google phone store is pure, giddy idealism: You'll buy the phone you want, then you'll shop for the cell plan you want, from the carrier you want

er, featuring 18,000 games; there are over 100,000 for the iPhone.

Worse, even if you find a lot of good ones, you might not have anywhere to install them. Nexus can accommodate memory cards up to 32 gigabytes — and yet Nexus allots only the tiniest sliver of that (190 megabytes) for downloaded applications.

The Nexus doesn't come with any iTunes-style companion software, either. Enterprising geeks know about the free DoubleTwist program for Mac or Windows, which simulates iTunes for the purposes of loading up your phone with music, photos and videos. But even DoubleTwist doesn't let you shop the Android app store from the comfort of your computer; you have to do it on the cramped little phone.

There's no physical ringer on-off switch (you have to do it on the screen), and therefore no way to

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