Global Insights

WILL THE MOBILE DEVICE REVOLUTION DRIVE THE GLOBALIZATION OF PAYMENTS?

BY THEODORE IACOBUZIO

The form factor—the physical device that initiates an electronic payment—is changing significantly for the first time in 30 years. That change, from magnetic stripe and embedded chip to a mobile device, will precipitate global change in payments that has implications for consumers, banks, networks, and infrastructure providers.

The last time the form factor changed in such fundamental ways was at the end of the 1970s, when electronic clearing and settlement replaced three paper receipts—the first and critical step in the creation of a truly global payments business.

53% APPROXIMATELY FIFTY-THREE PERCENT OF POINT OF SALE LOCATIONS IN THE UNITED STATES WILL BE NEAR-FIELD-COMMUNICATION READY IN 2015.[1]

In some markets, notably in Europe, the stripe itself gave way to an embedded chip encoded with the EMV security protocol. But the familiar plastic card looked the same, whether one paid in New York, Paris, Kuala Lumpur, or Buenos Aires.

That surface similarity—the familiar plastic card, about the size of a business card, with the issuer's name and logo and the MasterCard "bug" on the front—meant that a card might be a credit card, signature debit card, PIN-based debit card, or, increasingly, a prepaid card.

These product configurations are not likely to change. They will continue to provide access to prepaid, demand deposit, and current accounts or provide access to a line of credit. But, the replacement of the plastic cards resident in the consumer's physical wallet by virtual payment media residing in a digital "wallet" portends more than a "cooler" way to pay.

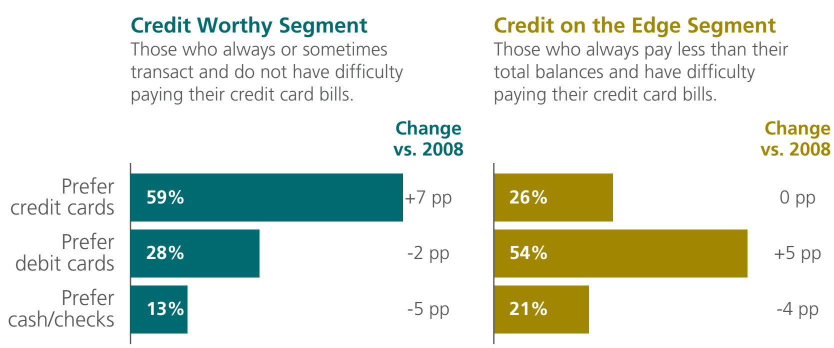
SATISFYING CONSUMERS' HUNGER FOR FINANCIAL CONTROL

NerdWallet CEO Tim Chen was probably closest to the truth when he wrote recently in the HuffingtonPost[2] that "there will be apps to tell you if you're running low on funds or if you could get more rewards if you wait a month to make your purchase, and file your receipts electronically…Such feedback could impose more self-discipline on spenders. Right now, swiping a card doesn't evoke the same feeling as handing over hard-won, tangible cash. But if we could see our bank accounts diminish as we make a purchase, or watch our debt grow, we might regain the visceral feeling of spending what we earn."

Chen is broadly correct, but there's a lot more going on here than "visceral feeling." MasterCard Global Insights' work over the past two years—the period when the crisis, while seeming in remission from the point of view of symptoms, dragged on from the point of view of etiology—reveals a fundamental change in at least U.S. consumer attitudes and behaviors (see Figure 1).[3]

FIGURE 1: PAYMENT METHODS ARE VIEWED VERY DIFFERENTLY BY DIFFERENT CONSUMER SEGMENTS IN THE UNITED STATES

Preferred Mode of Payment by Segment



Sources: Target Research Group, *Financial Crisis Study*, December 2008 and February 2011.

Under the pressure of the crisis, cardholders have learned for themselves that credit cards and debit cards taken together present them with the tools they need to regulate their household spending with an eye to budget, resources, savings, and, yes, a desire for a certain level of spending. The mobile device as form factor facilitates this shift to thrift, offering real-time, visually compelling and, most important, actionable information regarding the consequences, near- and long-term, of a given purchase—or purchasing taken in the aggregate.

Mobile plays its role in a developed—albeit currently struggling—economy like the United States. The infrastructure challenges there are by no means trivial. Nonetheless, Aite Group estimates that 53 percent of point of sale devices in the United States will be able to accommodate near field communications (NFC) payments by 2015.[4] Yet NFC is only part of the story.

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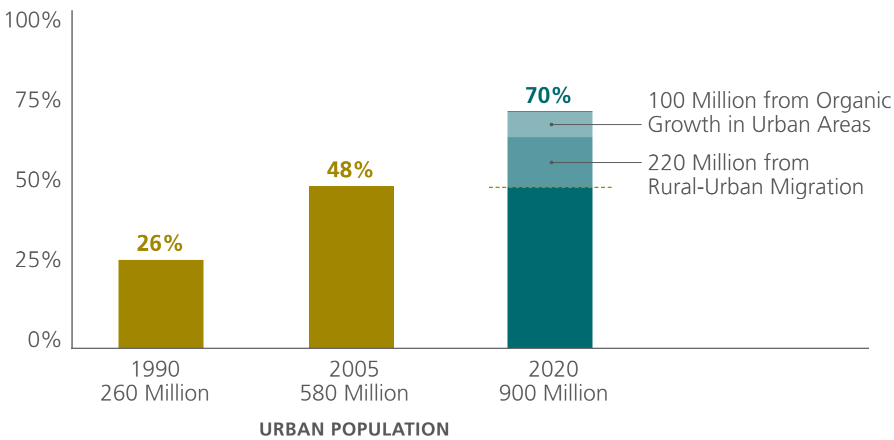
LEAPFROGGING OVER PLASTIC IN DEVELOPING ECONOMIES

Mobile has the ability to ride the momentum in developing markets globally as well. A compelling example is China, where, as Yuwa Hedrick-Wong demonstrated in a recent Knowledge Leadership paper for MasterCard,[5] an emphasis on corporate profits has led to serious imbalance in the Chinese economy. That giant engine of growth is actually hobbled to a certain extent by a lack of access to credit at the point of sale on the part of the Chinese consumer.

FIGURE 2: CHINA'S URBAN FUTURE

Urban Population as a Percentage of Total



Source: MasterCard Asia/Pacific.

According to Hedrick-Wong, the key to unleashing the power of the Chinese consumer is urbanization (see Figure 2). Beijing's 12th Five-Year Plan shows that the government is fully aware of this and willing to speed the pace of urbanization. If, as Hedrick-Wong says, the Chinese government can get urbanization right, it could go a long way toward unleashing the power of the Chinese consumer and realigning the Chinese economy from a net exporter to a more balanced mix of imports and exports.

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Here too, mobile, rather than plastic as a form factor, could provide the link to the banking system that the Chinese consumer needs in order to continue to spend on staples (debit card) and begin to spend on consumer goods (credit card).

Some will argue that many Chinese have never used a telephone and that while the "leapfrog effect" is interesting in concept, the leap is too far for any developing economy to take.

The answer to this objection is simply to point to Kenya, where M-Pesa[6]—a mobile money system that more or less grew from the ground up—achieved success by enabling Kenyan consumers to buy, sell, and move money in a way that obviates lack of access to, and trust in, the existing banking system.

ADDRESSING DIFFERENT NEEDS IN DIFFERENT MARKETS

It is important to realize that there is more than one flavor of mobile payments. In a developed economy, it might take the form of NFC residing on the secure element of a smart phone, replacing the plastic card as form factor. Non-NFC payments can work here as well. But in a developing economy, the lack of infrastructure, whether technological or financial, could point to a mobile money solution like M-Pesa, where the phone doesn't replace but leapfrogs over the plastic payment card. Mobile telecom companies like Airtel Africa have partnered with Standard Chartered Bank and MasterCard to offer virtual credit cards. Airtel customers shopping online can request a single use 16-digit card number to enable eCommerce transactions without a traditional credit card. And remote payments—access to the World Wide Web through either a smart phone or tablet computer—complete the current inventory of mobile payment options.

This convergence of technology, consumer demands, and global economic forces is what is likely to continue to make mobile payments the centerpiece of the most important change in form factor since electronic clearing and settlement. Dynamic, ubiquitous, and secure, mobile is the "card" of the future.

ENDNOTES

1 Aite Group, "The Hosted POS: Enabling Mobile Marketing and Mobile Payments in the United States," Rick Oglesby, September 2011.

2 The Huffington Post, "Coming Soon: Smarter Credit Cards," Tim Chen, http://www.huffingtonpost.com/tim-chen/coming-soon-smarter-credi_b_841562.html.

3 MasterCard, *Shifting Payment Dynamics*, Prasad Iyer, June 2011. http://insights.mastercard.com/wp-content/uploads/2011/06/Shifting_Payment_Dynamics.pdf.

4 Aite Group, op cit.

5 MasterCard, *China's Economic Rebalancing and Global Implications*, Yuwa Hedrick-Wong, July 2011, http://insights.mastercard.com/wp-content/uploads/2011/07/ChinasEconomicRebalancing-S.pdf.

6 Massachusetts Institute of Technology, "The Economics of M-Pesa," William Jack and Tavnit Suri, October 2009, http://www.mit.edu/~tavneet/M-PESA.pdf.

ABOUT THE AUTHOR

Theodore Iacobuzio

Theodore Iacobuzio is vice president in charge of Global Insights, MasterCard's interdisciplinary thought leadership organization. He and his team use research and analysis to better understand consumer behavior and market dynamics—and how those insights can strengthen the business performance of MasterCard customers around the world. Under his direction, MasterCard has published groundbreaking work on payments profitability, the myth of debit "cannibalization," global debit point-of-sale migration, remittances in Asia/Pacific and the Middle East, and affluent segmentation in Brazil. Prior to joining MasterCard in 2009, Mr. Iacobuzio led the Payments Practice at TowerGroup. Based in Purchase, N.Y., he can be reached at ted_iacobuzio@mastercard.com.

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