



Taking a bead on developments in the payments space

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* Views expressed are strictly the author's.



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- Apple Pay's impact on players across the payments value chain
- PayPal's prospects independent of eBay
- Network state of play globally
- Is the tsunami of innovation represented at Money2020 a threat to merchant acquirers and processors?

Apple Pay

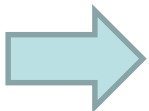
- Existing and aspiring players across the payments value chain impacted.
- The Cupertino smartphone behemoth's primary aim is to enhance the iOS platform and Apple customer relationships, not to disrupt the payments system. Focus is on proximity payments at the physical pos and in-app mobile commerce.
- However, consumers and merchants are conservative in payments.
- Need to achieve critical mass of Apple Pay wallet holders and merchants
- Off to a good start with a million cardholders enrolled in the first 3 days.
- Contemplating an alliance with AliPay which could be a game changer
- Must create a compelling reason(s) for consumers and merchants to adopt Apple Pay in terms of ease of use and benefits.
- In mobile commerce, secure low-friction payments are probably sufficient and Apple's control of the iOS platform confers advantage.
- At the physical pos however the existing payment system is low friction and habit.

Apple Pay

- NFC will ride in the EMV rollout slipstream to achieve critical mass.
- Many in the payments industry believe Apple can and will move the proximity-payments market. Near term puts NFC in the pole position.
- Initial launch didn't include rewards. Apple, perhaps with retail partners, needs to provide or facilitate provision of benefits to cardholders to incent them to use Apple Pay at the physical pos in lieu of swiping or inserting a piece of plastic.
- Apple launched its digital wallet in the US because: (1) it and its partner networks are here, (2) with 40% share of smartphones, it's Apple's strongest market, (3) the U.S. payment-card market is as or more competitive than any in the world, giving Apple leverage, and (4) of substantially richer economics.

Apple Pay

- Apple extracted 15 basis points for credit and half cent for debit transactions, a raft of reporting obligations and audit rights, from large bank issuers such as BofA, JPMorgan Chase, Citigroup, American Express, Wells Fargo, Capital One, U.S. Bank, Navy Federal Credit Union, USAA, PNC, Barclays and ~ 500 smaller issuers.
- Apple Pay cheerleaders contend it will accelerate the half-century conversion of cash-to-electronic payments. Maybe. Because a disproportionate percent of iTunes accounts are funded with credit cards, banks hope Apple Pay will convert debit to more profitable credit transactions
- Large banks however would prefer their customers use their wallets, not Apple's, or any other third party's digital wallet. E.g. October 14th CEO Jaimie Dimon said Chase would launch a response saying "We think that we can also be friendly to merchants with data, with pricing, with simplified contracts. So we are trying to make this an ecosystem that works better for everybody and is far more secure. I have customers on both sides and I'm far more secure."
- Apple was able to squeeze banks because it could credibly threaten to shift spend from nonparticipating to participating bank issuers.
- Whether it boosts electronic payments or shifts the credit/debit mix, if Apple Pay is successful, Apple will demand a great share of banks' economics and diminish banks' brands and customer-relationship equity.



Apple Pay is an exigent threat to banks.

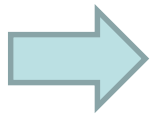
Apple Pay

- Retail payment networks such as Amex, MasterCard and Visa pleased. The Cupertino smartphone giant embraced the existing payments ecosystem. Apple is working with existing payments system players, and, importantly, embraced open NFC and tokenization standards
- The networks are processing tokenizing accounts and transactions, and codes, which enhances transaction security, reinforces their positions at the heart of the payments ecosystem, generates fees, and preempts law or a regulatory diktat from Washington prescribing payments security.
- Merchant acquirers and processors have rushed to support mobile in-app integration for Apple Pay.
- Merchant reactions mixed. In-store: McDonald's, Macy's/Bloomingdale's, Walgreens/Duane Reade, Disney (stores and parks), Staples, Subway, Whole Foods Market, Nike, Toys 'R Us, Petco/Unleashed. In-App/Online: Target*, Groupon, Panera, Starbucks, InstacartTickets.com, Sephora, Uber, MLB.com and OpenTable
- MCX members won't participate at the physical pos. Several however indicated they would support Apple Pay for mobile commerce.

*Target is a member of Merchant Customer Exchange (MCX)

Apple Pay

- There are 200-plus digital wallets, most of which have disappointed.
- In 2014 the graveyard of failed, aborted or significantly scaled back digital wallets started to fill up.
 - Buyster (Orange, Boygues Telecom, SFR and Worldline joint venture) RIP
 - O2 RIP
 - Weve (O2, Everything Everywhere and Vodafone standard mobile wallet joint venture) RIP
 - V.me outside Europe now scaled-back Visa Checkout
 - Square Wallet replaced with less ambitious Square Order
- Cupertino smartphone giant finally taking the plunge will spur more activity from the major wallets in Google ecosystem, MCX, Softcard, and banks.



Five years out consumers will manage and invoke payment keys from pieces of plastic, a variety of aliases, and digital wallets stored in the cloud and/or on Internet-connected mobile handsets

PayPal

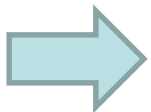
- Ebay is a marketplace. PayPal is a payment scheme, processor, digital wallet, issuer and within the MasterCard and Visa universe a merchant. Traditionally closed general purpose payment system but starting to open up à la Discover and American Express
- PayPal while independent became the leading payment system within eBay while eBay was promoting its own payments joint venture with Wells Fargo BillPoint.
- While many retailers on their own or partnering with financial institutions have successful retail credit card and loyalty programs to generate incremental sales, there is inherent tension and has not been much success in a retailer(s) promoting general purpose retail payment systems.
 - Sears in 1985 at the time the world's largest retailer, launched Discover
 - Alibaba- Alipay
 - MercadoLibre – MercadoPago
 - Amazon – Many retailers reluctant to accept a payments wallet from a competitor.
 - Merchant Customer Exchange
 - Auchan – Flash & Pay – QR coded based mobile wallet. Attempting to curate a multi-retailer payment scheme.

PayPal

- While PayPal funds iTunes accounts, it's not in Apple Pay. Apple reportedly was concerned about PayPal trying to work with Samsung. Regardless, it would have chafed at paying 5 basis points or more to be a wallet in a wallet. May yet do a deal.
- Independent, freer to partner to maximize value of payments business.
- Arguably easier to attract payment talent
- Freer to acquire, though not that at this juncture there's compelling reason to, notwithstanding activist investor Carl Icahn's suggestion the payments world is ripe for consolidation and that independent of EBay, PayPal could create value by participating.
- Investor and PayPal co-founder Peter Thiel: "It makes sense for them to naturally spin it out again and for PayPal to focus 100 percent on payments. " Regarding M&A "I think mergers only make sense when there are real synergies ... and it's not obvious what the synergy between PayPal and any other business would be at this point."

PayPal

- Strategy to become a full-spectrum network serving e-commerce, mobile commerce and payments at the physical pos makes sense. Achieving relevance at the physical pos however will be a long, hard slog. Opening up, partnering with merchant acquirers and the Discover network, to close the acceptance gap with MasterCard and Visa, right approach. Need to build clusters of critical mass of acceptance and spend. Directly and/or with retail partners PayPal must provide incentives to consumers to use PayPal in lieu of the Amex, MasterCard or Visa card they're habituated to and rewarded for using.
- Issuance partnership with First Bank of Nigeria is an interesting harbinger. Likely to open up further and seek partnerships with more banks, retailers and MNOs.
- While one can construct M&A rationales with/for Alipay, Amex, Chase, Discover, Facebook, Google, et al, PayPal at least for the moment best off independent.



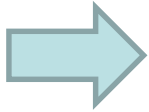
An amicable separation from eBay is a plus for PayPal

Retail payment networks

- Global – MasterCard and Visa Federation (Visa Inc. and Visa EU)
- Tier-two and aspiring global
 - Amex
 - UnionPay
 - Discover/Diners Club
 - JCB
 - PayPal
 - Alipay
- Regional
 - EAPS
 - Eufiserv
 - ATH
 - MercadoPago
- National
 - Interac, Star, Cartes Bancaires, NYCE, Pulse, BCC, Bancomat Mister Cash, Ideal et al
- Aspiring national
 - Rupay
 - Elo
 - Dwolla (trying to compete simultaneously with ACH and Visa and MasterCard)
 - PayFair
 - Verve/Interswitch

Retail payment networks

- Nontraditional mobile P2P and retail payment systems
 - M-Pesa
 - EcoCash
 - bKash
 - BBM
 - Zapp
 - Smart Money
 - Globe Cash



Branded retail payment network with critical mass enjoys powerful network effects. Still two genuinely global retail payment schemes: MasterCard and Visa Federation

China

- In 2001 as part of accession to WTO committed to 100% open up its domestic credit and debit card market by 2006.
- 2010 US filed a WTO action
- 2012 US largely prevailed and China said it wouldn't appeal.
- As of today there has not been a single domestic Amex, Diners Club, JCB, MasterCard or Visa transaction in China.
- October 29th China's State Council announced any foreign firms that "meet the necessary standards" would be welcome compete. -a)
- Government will likely impose a range of demands such as installing domestic switches with which foreign networks will readily comply with. Suspect however foreign networks will not be free to compete on a level playing field anytime soon.



- 4.2 billion payment cards -a)
- With 12.971 billion card payments, second biggest market in world. Card payments per capita however only 9.5, compared with 248 in US and 223 in Sweden. -b)
- Payments on domestic cards in 2013 grew 44% -b)

(a- Competition Policy International

(b- Bank for International Settlements China and Sweden are 2013 #s. Transactions are on domestic cards. US #s are 2012 and include payments on all cards.

Putative national and continental champions

- EAPS on life support
- Eufiserv likely to survive
- RuPay
 - August, 2013 DNS was the first bank to issue RuPay debit cards. In 2013 RuPay cards increased to 13 million, up from just 200,000 at the end of 2012. –a)
 - Network charges issuer \$.001 and acquirer \$.0005 per transaction.**
 - Interchange .45% for transactions up to RS 2000 and .65% above Rs. 2000. –b)
- Brazil
 - ELO is a domestic payment scheme jv between Banco de Brasil, Bradesco and Caixa Economica Federal, using Visa as a processor, targeted at low-income customers and government-benefit recipients.
 - Cards tripled yoy reaching 37 million cards in 2013.

(a- Payments Cards & Mobile

(b- National Payment Corporation of

India

Developed market new payment system: Zapp

- Zapp is a retail payment scheme scheduled to be launched in United Kingdom in 2015
 - Full-spectrum retail payment network
 - UK Bank-owned Vocalink retail payment system harnessing handsets and ACH, to compete with MasterCard and Visa payment cards.
 - Will support NFC, Bluetooth low energy and QR codes
 - WorldPay (close to 50% UK acceptance), Optimal, Realex, Optimal, Sage Pay, and Elavon (U.S. Bank), collectively reaching > 60% UK merchants.
 - HSBC, First Direct, Nationwide, Santander and Metro Bank will roll out Zapp to UK consumers. Collectively they reach > 35% UK consumers.
 - Charges fixed transaction fee, varying by channel, to acquirers.
 - Shares on the order of 70% of transaction fee with bank issuers.
 - Aims to take 10% of retail transactions by 2017, primarily from debit. To the extent however Zapp takes credit-card-transactor share, for banks it would be a revenue loser.

Emerging market MNO-centric system: M-PESA

- M-Pesa
 - In Kenya it has 18 million subscribers, 11.6 million of whom were active within the last 30 days, 79 thousand agent outlets, and acquiring 33 thousand merchants –a)
 - 5 million subscribers in Tanzania – b), and is also live in Afghanistan and South Africa and within the last year launched in Egypt, India, Lesotho, Mozambique and Romania.

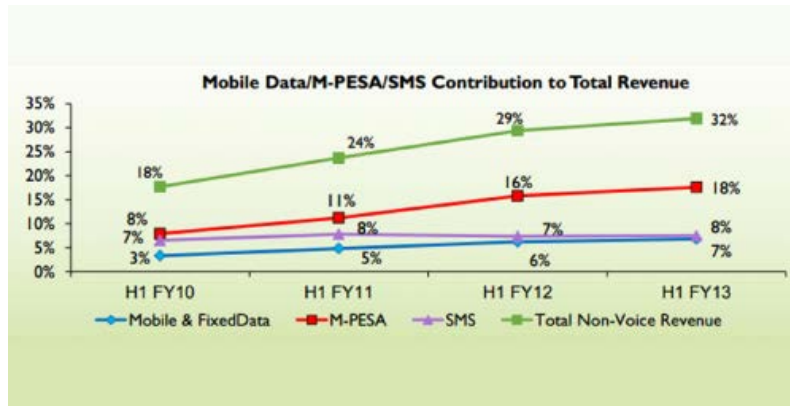
(a- Safaricom

(b- [Vodacom Tanzania](#))



Emerging market MNO-centric system

- M-Pesa
 - Generates payment-and-transfer-size tiered transaction fees



} M-PESA generates 18% of Safaricom's revenue

-a)

- M-Pesa success ingredients:
 - Powerful owner MNO Vodafone/Safaricom with enormous national and global reach
 - Weak competition, low banking penetration, weak traditional payment card issuance and acceptance and use
 - An accommodating regulator/regulatory
- The future:
 - Regulator licensed three competitors: Finserv Africa (Equity Bank), Mobile Pay and Zioncell.
 - Competition authority ruled Safaricom must share network access
 - Perhaps an attempt to stitch together a multinational system.

Emerging market P2P payment scheme: BBM

- Indonesia is a ripe market:
 - 240 million people, 90% mobile phone penetration and only 11% of Indonesians have debit cards.
- PermataBank's BBM money transfer supported by Monitise launched on Blackberry in 2013. More than 50% of smartphones are Blackberry
- Users can create a mobile money account attached to their BBM identity, and transfer money to other BBM contacts, purchase airtime, or move money to bank accounts.
- Supports P2P money transfer and retail payments off and online
- No additional fees for moving money from BBM to BBM account.
- 60,000 registered users in first 90 days
- Will be available on iOS and Android in 2015

Emerging market MNO-centric payment schemes: Smart Money & Globe Cash

- Philippines
 - Leading mobile-phone operator Smart Communications' Smart Money
 - Mobile-phone operator electronic wallet enabling bill payment, airtime reloads and money transfer
 - Can send funds to 51 million SMART subscribers in the Philippines
 - Companion co-branded MasterCard
 - 12 partner banks
 - 5000 physical branches
 - Global remittance network through MoneyGram partnership
 - Number two MNO Globe Telecom
 - Globe Cash – P2P money transfer
 - Globe Charge – Mobile acceptance for SMB owners

Hybrid co-branded payment and money-transfer systems are a logical endgame.

Emerging market payment scheme: bKash

- bKash is a subsidiary of BRAC Bank with investments from Money in Motion, the International Finance Corporation and the Bill & Melinda Gates Foundation.
- Offers mobile P2P and digital wallet for retail payments
- 90,000 retail agents
- Registering and putting cash in are free. P2P payments \$.06. Taking cash out 1.85%



The advertisement features a smiling woman with dark hair on the left. On the right, the bKash logo is displayed above the text "a BRAC BANK company". Below this, the slogan "Shop with bKash, enjoy" is followed by a large "10% Cash Back" graphic. Two rows of partner logos are shown: "Super Stores" (including Agora and others) and "Online Bus Ticketing" (including SHOHZ). A "Fashion Houses" row includes Yellow, Lotto, and others. The bottom of the ad includes the phone number "16247", the website "bkash.com", and a small note "* Conditions apply".

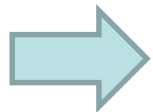
- 60% unbanked, high cell phone penetration and universal coverage
- Central bank created a favorable regulatory environment
- In Bangladesh initial mobile financial services launched mid-2011. bKash went live in the second half. By 2012 it had 2 million accounts and by 2013 11 million accounts
- In 2014 there are 20 licensed mobile financial services providers. bKash has ~ 80% market share.

Innovation wave on acceptance side of the network

- Increased merchant acquiring and processing competition in most markets
- Global payment processing land grab underway, First Data has taken a time-out.
- Banks continue to cede payment processing to nonbanks
- Relatively low barriers to entry
- Generally, least regulated payments sector

Innovation wave on acceptance side of the network

- Integrating payments in a richer more comprehensive and stickier merchant solutions
 - Revel, Shopkeep, GoPago, Leaf, et al
- Acquirers engaging consumers and attempting to deliver sales lift to merchants
 - Chase/Visa on-us processing partnership, Vantiv-Visa on-us processing partnership, Levelup, First Data/Clover, Total Systems/Wombly et al
- Dead-drop simple integration
 - Braintree/Venmo, Stripe, Paymill, Judo Payments, WePay et al
- Blurring of e-commerce, mobile-commerce and physical pos payments
- Mobile acceptance
 - More than 200 mobile-acceptance providers
 - By 2011 4 million mobile devices were being used for acceptance, in 2012 9.5 million and in 2013 ~ 17 million
 - a) By 2017 it's estimated mobile acceptance devices will reach 38 million –a)
 - Explosive growth has substantially been in the US and Western Europe. Impact should be greater in emerging markets



Stressing traditional acquirers

What does the future hold?

- Worries merchant acquirers will be disintermediated or disrupted out of their franchise are ill-founded.
- Proactive acquirers will buy/incorporate many of innovators/enhancements, and leveraging their distribution systems, deliver additional value around payments, generating fees and reducing merchant attrition.

Q&A