Every bank and investor in financial services faces difficult choices when it comes to mobile financial services. Will Uganda, Kenya and Tanzania rapidly advance to cashless economies on the back of the mobile money platforms offered by the mobile network operators (MNOs)? Can, or should, banks seek to compete with the MNO platforms that currently dominate the market, or abandon their plans for the bottom of the pyramid? And what role should regulators play in ensuring competitive and inter-operable payments markets?

Whereas SIM-card-based services have grown rapidly, their usage and applicability to different payment needs are less well understood. The table below shows a stylised transaction profile of a person earning $100 a month in Kenya. It compares how much a consumer should be prepared to spend on a transaction using the so-called 2% rule (that consumers are prepared to pay for transactions providing the amount is not more than 2% of the value of the transaction) with current m-pesa transaction fees.

Applying an affordabilty test to spending patterns

Transactions	Cashflow (USD)	Transaction per Month	Average Transaction Value ($)	Available spend on Transaction @ 2%	USSD Cost ($)	Balance available to Transaction Provider ($)	m-pesa Fee (On Net)	m-pesa Fee (Off Net)
Total Income	100	1	100					
Rent	19	1	19	0.38	0.06	0.32	0.4	0.66
Transport	18	40	0.45	0.01	0.06	-0.05	0.03	n/a
Groceries	30	20	1.5	0.03	0.06	-0.03	0.15	0.66
Remittances	15	1	15	0.5	0.06	0.44	0.67	0.93
Utilities	13	2	6.5	0.13	0.06	0.07	0.15	0.66
Airtime	6	5	1.2	0.03	0.06	-0.03	-	-

Genesis Team Calculations

What this table shows is that for large transactions (rent, remittances and utility bills) m-pesa is affordable. In particular for long-distance transfers (remittances) MFS have probably been able to capture a very large share of the market – by providing distributional reach and instant transfers that other service providers cannot come close to replicating. But it also shows that for the numerous very small payments that are made every month not even m-pesa is affordable, suggesting that a large share of consumer spend will remain cash based.

The table also shows the difference in m-pesa pricing between registered and non-registered users and how this is used to create a compelling 'network' effect.

For any non-MNO provider seeking to compete with m-pesa, they also need to pay the USSD fee charged by the network. The table shows how this 'charge' drives a wedge between what other providers can earn on a transaction, and that for virtually all transaction types the value to the provider would be negative.

Need for regulation

There is no telling whether other service providers can match m-pesa's pricing, but it is important that regulators seeking to achieve a competitive market change the rules of the game. Firstly, USSD needs to be regulated to ensure that the MNOs do not use the pricing of USSD services to reduce competition in the provision of mobile money services.

Secondly, they need to ensure inter-operability between mobile wallets to address the network effect of a dominant provider charging a premium for off-net payments. Any non-Safaricom customer can receive a payment now, but they would have to encash the transfer for an additional fee. To use this value electronically, they would need to load that value into their wallet of choice, and pay an additional transfer fee from that provider – a complex and costly process.

The lack of such regulation has resulted in some extraordinary outcomes in Kenya. To compete to provide payment services, Equity Bank has been forced to become a MVNO (mobile virtual network operator), deploy SIM overlay technology so that Safaricom users can access Equity Bank's service without changing SIM cards and partnering with an operator to reduce USSD costs. Such a deep and comprehensive strategy is not an option to many financial service providers.

To remain in the game

In markets with more mature payment infrastructures, airtime purchases and electronic fund transfers (EFT) provide a cheap and effective alternative form of MFS for smartphone users. But this still requires a relatively high number of people to have bank accounts, high levels of smartphone penetration and the infrastructure to facilitate cash withdrawals or the purchase of goods.

If banks are to remain in the game they need to co-operate to ensure:

- That they are not disadvantaged in competing to provide services through the pricing of USSD. Communications regulators must develop effective solutions to the problem of discriminatory USSD access and pricing.
- They will need to support the development of an effective payment system to affect inter-bank transfers and support a range of payments channels at scale and therefore low cost.
- Continue to grow agency banking and learn from the evolution of the card associations to develop this market as a network in which agents can accept and make payments for all bank customers.

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