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Issues in Mobile Banking 1: Implementation Choices

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Introduction

One of the key barriers to access to financial services to the poor and particularly to those living in remote rural areas is the price of being banked. The costs include both the fees charged by the financial institutions and the time and money required to access the banking infrastructure. Relatively recent technological advances have allowed the cell phone to become a safe and effective transactional device. The widespread and rapidly growing ownership of a mobile phone and the ever increasing geographical coverage of the networks means that the use of this device has the potential to be able to offer a cost effective and simple means of making financial transactions to service this largely untapped market.

As with any investment decision, the criteria for whether and how to establish a mobile banking business derive from the threats and opportunities of the environment and the strengths and weaknesses of the potential investor and/or operator. However, given that mobile banking is still a relatively new technology solution in the field of banking, the experience that has been gathered in early initiatives may be able to provide some generic guidelines as to the choices which need to be considered. This Briefing Note examines some of the key strategic issues for financial institutions considering implementing mobile banking.

Market Potential

The operator needs to begin by deciding on its market entry strategy and this will vary according to the vision of the organization and the market potential in the relevant country. The target market segment needs to be quantified and socio economic data gathered in order to assess effective demand. MTN Banking made the decision to price and position for the lower end of the market, but began communicating to the upper end of the market on the basis that although there was great potential in the mass market and unbanked, they felt it was important that the product be positioned aspirationally, rather than as an offering aimed at the poor. Vodaphone on the other hand has so far looked at only targeting the unbanked and have selected markets and channels accordingly.

Substitute or Supplement

Some operators may see the advantages in adding an additional electronic channel to an existing account providing either informational and/or transactional services. At the other end of the spectrum the intention may be to create a banking service centred on the cell phone which will be a whole new relationship with the customer. In other words the mobile banking may be a substitute or a supplement for existing banking services (or a substitute for informal financial services). In terms of views on revenue, the provider may see this as a) a stand alone driver of revenue in its own right; b) a way to attract new customers into their main product line or a way to retain and enhance the relationship with existing customers; or c) a way to reduce the transaction cost of dealing with the market (for example being able to purchase airtime from the handset saves the 15-20% commission that a telco would otherwise pay to an airtime vendor).

Operational Alliances

If the instigator is a telecommunications company (telco) they may wish to ensure that the platform can be used by a variety of banks (banking agnostic). This is the model used in South Korea. On the other hand a bank may wish to offer its clients the ability to access their accounts using any of the telco's in the country (telco agnostic). MTN Banking was set up as a loyalty scheme for MTN, offering additional value to its customer base. The software was burnt on to the SIM card or sent "Over the Air" so that a banking client would need to have an MTN SIM card. (This proved effective for new cell phone customers but was problematic for existing customers who either needed to download the software and/or swap their existing SIM card from a 16k to a 32k card. This affected approximately 20% of potential clients requesting the software although this is reducing since all cards currently being distributed are 32k). So if the investor is a telecommunications company the model could be built to require their own phone and SIM card. An exclusive relationship between a telco and a bank is more likely to enable the telco to use the infrastructure and knowledge base of the bank regarding banking expertise. However if the mobile account is competing with other bank offerings there will inevitably be a conflict of interest which will manifest itself in terms of allocation of resources and possibly competitive pricing restrictions.

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Customer Hardware
Options around the technology that can be used will depend on the level of accessibility of the required handsets to a broad enough market. The lack of standardization among handsets will also have an impact in several ways. For example it may affect whether the banking software can be made available on the handset as opposed to centrally, which then has a knock on effect on the level of security for authentication. There may also be a practical problem of educating the customer on how to access and use the software since the display may differ from one phone to another and indeed not even be available on some models. The functionality of the SIM cards being distributed and available will have an impact on the kind of software that can be used. In many developing countries the SIM card capacity is still 16k whereas SIM browser SMS based banking software will typically require at least 32k cards.

Systems
Systems need to be chosen that are appropriate to the banking environment being considered. In developed electronic infrastructures like South Africa there need to be system links to the:
- Payments system (for bill payment and inter bank transfers)
- Card acquirers for the use of bank cards
- ATM network and bank branches for cash withdrawals and deposits

In countries where there is little or no electronic banking infrastructure then 'stand alone' systems are more appropriate. Here the system will need to do a lot more of the functions such as cash management, central bank reporting and ATM system management as these will not be carried by the existing banking infrastructure.

As the mobile banking solutions are accessed via the mobile phones, the availability of the banking service should be perceived to be as good as that of the mobile telephony service. This means that a sufficiently available banking system and architecture needs to be chosen. This will also need to be operated with 24/7 supervision, which of course has cost implications.

Financial Model
Operational Profitability: The driver for the business model must be considered upfront. It could be seen as the new business line, a way to retain clients or as a new channel for their primary products. For example, telcos may wish to use cell phone banking as an alternative channel for consumers to purchase airtime at a lower cost and more conveniently, (thus saving airtime agent commission of 15-20%). In considering the model as a new business line the key drivers of profitability are the average transaction numbers and the average float value. Revenue needs to be derived from a balance of transaction fees and interest earned. However the profitability may be restricted by the extent to which the business is a price taker if a large number of services have been outsourced. This is likely to be the case if the business is being provided by a non bank since in many countries only a bank can have access to the payments systems. The other restraint is that of customer affordability and comparisons with substitute products. The main operational costs will come from call centre staff, software and hardware maintenance/operations, the cost of communications, and plastic bank cards (if they are used).

The cost of acquisition of an account derives mainly from (a) the cost of the download of the software, particularly if this is a number of SMS's; and (b) the commission paid to the distribution channel; or (c) the employment cost if not outsourced; or (d) cost of calls if a call centre is needed. The higher the cost of acquisition, the greater the number of transactions expected will need to be in order to reach a reasonable pay back period per account. Transactions with a relatively high revenue may be the sale of airtime, acquiring and money transfer.

Fixed Costs: Major areas of fixed costs derive from the acquisition and development of software and hardware and the establishment of a call centre. Opportunities to lease the software and even the hardware from a host who provides the service on a per transaction basis are beginning to emerge.

Marketing can be seen as a semi variable cost although in some senses it is closer to a fixed cost since it is difficult to tie it to the numbers of accounts either activated or active. Since mobile banking is a new concept for most banking clients and banking is itself a new concept for many poor people, successful implementation requires significant expenditure on marketing and education. The customers need to feel that they can trust the provider as well as to understand how to use the service. Compliance is also a big driver of costs since it increases the amount of documentation collected as well as the information required to be warehoused.