As part of the independent assessment of CATIA, a household survey was conducted in Senegal of over 650 households. The survey instrument was designed to yield data on how people are using communications, and what impact this has on their lives.

An added value to the main report, was an investigation into remittance flows and financial transactions that could inform M-Payment propositions currently being discussed in the international community. Two main M-Payment models are being discussed (Porteous D, 2006, The enabling environment for mobile banking in Africa, DFID) as:-

- **Additive models** are those in which the mobile phone is merely another channel to an existing bank account;
- **Transformational models** are those in which the financial product linked to the use of the phone is targeted at the unbanked, who are largely low income people.

Transformational models have yet to be fully explored, and this study seeks to contribute to the debate as to whether transformational models would find a ready adoption in Africa.

The sample was drawn from four districts of Senegal, Dakar (334), peri-urban areas of Dakar and Thies (190), and rural dwellers in Louga, Saint Louis and Thies (129). Two thirds of the sample were female. The survey instrument was designed to dovetail with Senegal’s recent national household survey (Demographic and health survey) thus enabling comparisons with a national sample of 69,000 people (7,400 households). The CATIA sample proved representative, albeit slightly better educated, and slightly older.

**Analysis**

The analysis shows that poverty indicators, particularly education tend to affect the outcomes right across the model – the use of telecommunication, access to financial services, knowledge about health, and resultant behaviours and outcomes. There are clear links between the use of telecommunications and improved livelihoods (beyond health alone). Family relationships are enhanced by telecommunications and this has an impact on income and other livelihood factors.

Regarding patterns of financial transactions very few people have bank accounts (as expected) and few people are members of a credit union. Consequently, the majority of people managed small bits of cash by “keeping them in a safe place”. This increases concerns about theft, loss and spoilage. The household economy is characterised by cash transactions and by informal credit. When people need small amounts of money either they borrow from friends and family, or they might sell something. According to the respondents, access to cash and credit could enhance their livelihoods.

13% of the sample were banked, although in terms of their financial behaviour one would hardly guess it. They continued with a range of activities to deal with day-to-day cash, including borrowing from friends and family. 21% were members of a credit union and they too undertook a range of strategies to handle day-to-day finance. Both groups still needed to get small cash amounts from friends and family as much as those without any formal financial account.
18% of the sample received remittances, and 17% sent remittances. Deliveries are generally once a month for both senders and receivers. Those receiving tended to be urban households receiving from abroad, used Western union as the main mechanism for delivery and they received from $40 to $360. Those sending were urban households sending home to the rural areas, and used personal carriers to deliver the money. They sent from $5 to $80.

Remittance receivers are significantly more likely to have or have access to a bank account, even though they do not use the account to receive funds from their remitters. Of the 8% of households with a more formal income only 12 households received the income through a bank account.

In terms of communication technology, owners of mobile phones and those that frequently access phones are more likely (than non owners and infrequent users) to be borrowing small amounts of money from friends and family. This may reflect their propensity to undertake small business transactions. Despite all the anecdotal stories from East Africa about sending money home in the form of mobile phone airtime, in this sample only 3 people had ever received, and 2 households had ever sent.

Over the whole sample, opinion was explored about using the phone as a means of transmitting finance. 44% felt they could agree with the statement that phones will be used in the future for transmitting finance that could be redeemed at the local trader, and 40% felt they could trust such a system. Approximately 25% disagreed with the statements and the remainder felt they couldn’t say. Interestingly frequent users of phones, and those with bank accounts, both expressed a significantly higher confidence in the M-Payment proposition.

Conclusion
The economies of the households sampled are characterised by a strong reliance on cash. They require small amounts of money, and these finances need to be accessed quickly and simply. Even those with formal accounts rely on keeping small amounts of money to hand “in a safe place” or temporarily putting the value in a good that can be sold easily. Any M-Payment proposition would need to have easy cash in/cash out properties. The other feature of the household economy is the many person-to-person transactions. If credit is required, it is obtained from friends, family and traders.

For the additive model the results suggest that a more ready access to household bank accounts and financial products could substitute for some of the storage and access currently conducted through friends, family and traders. In particular if traders had bank accounts and could see funds immediately transferred to their accounts, they might become points of cash in and cash out. However the benefit and uptake might be strongly determined by the cash in and cash out possibilities. Would the bank have authorised agents who were more easily available than their current branching arrangement? Would the cash in cash out be through ATM or Point of Sale devices? The data suggests that inconvenience is restricting household use of their account for smaller transactions.

Regarding a transformative model, where the phone is very much the focal point there would likely be agents authorised for cash in and cash out. The data suggests there would be a ready uptake of such a model. It also suggests that transfer of stored value from one phone to another would be helpful in terms of person-to-person transfers.

There are also significant flows of remittance finance that could justify the M-Payment proposition. International transfers might need to be up to $400 to substitute for existing behaviour – but the higher amounts may be due to the pricing structure offered by Western Union, the currently favoured carrier. An M-Payment system with a low cost structure might increase the frequency of the lower payments (around $100). Traditional domestic transfers need to be between $5 and $80, and an M-Payments system within the country via stored value on a phone would probably find significant uptake.

Given that the sample did not have experience of M-Banking or M-Payments, the 44% in agreement with the statements about the M-Payment phone proposition suggests there is a latent confidence in such a proposition. This survey results suggest there is market demand for phone based M-Payments in Senegal, and that there would be a ready adoption of the product if it could fulfil easy cash in and cash out, and person-to-person transfers.