Policy Brief

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Information and Communication Technology and Money Transfer Microfinance in Congo-Brazzaville

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1.0 Background

Information and communication technology (ICT) has now become an indispensable tool that is increasingly changing the national and international environment: ICT has indeed given new impetus to the growth of enterprises and people's well-being.

In Congo, the communications sector experienced considerable modernization and expansion during the 1990 decade. The backbone of this development was the government's opening of the sector to competition. This transformation of the sector led to a real telecommunications economy two main features of which were a positive externality and the emergence of a fabric of dynamic money microfinance transfer institutions. In this respect, the fact that foreign communication firms, especially those dealing with telephony, set up branches in the country is an indication that the sector's expansion is a manifestation of globalization (Torrès, 2000 and Boungou Bazika, 2004).

Before the opening of the telecommunications sector to competition, the National Post and Telecommunications Office (ONPT), which is a state-owned corporation, was the only operator in the country. It had a full monopoly on telecommunications services and equipment. Only fixed telephony was available and the telephone network was set up only in the main urban centres and at the railways stations in order to regulate the railway traffic. Fixed telephony was almost the preserve of well-to-do people who had a decent income and could afford decent housing (Makosso, 2005). Similarly, when mobile telephony made its way into the country, the telephone was expensive and was considered a luxury.

Before the liberalization of the sector, the mobile telephony sub-sector is now run by three international firms: Zain Congo, MTN, and Warid — which was set up in the country in 2008. Owing to the strength of competition, there is an increasing boom in ICT, which has led to an emergence of a fund transfer microfinance that operates from almost everywhere in the country.

It can be observed that with the development of ICT, the Congolese population has discovered certain jobs that had been ignored for a long time. ICT has indeed brought about considerable changes in the management of structures: gains in time, the possibility of sending the same message to a multitude of people in lesser time and at a lower cost, and the possibility of spreading information to people living in far-away and landlocked areas. The promoters of economic initiatives in Congo Brazzaville seized the opportunity offered by the Internet and the mobile telephone to promote fund transfer microfinance that is now operational everywhere in the country. Today, this type of microfinance offers a satisfactory solution to the huge needs in money transfer services for both urban and rural populations, needs that could not be satisfied by the classical financial establishments in crisis.

1.1.1. Statement of the problem

The present study sought to address the following questions: What is the impact of information and communication technology on the money transfers made by microfinance institutions in Congo-Brazzaville? What is the cost of money transfers to the senders and the recipients? What is the structure of both the demand and the supply?

1.1.2. Justification of the study

The present study was justified by the important role played by ICT in the money transfer microfinance sector and the dynamism and innovation that come with ICT.

1.2. Definitions of the terminology used

1.2.1. Transfer microfinance

The microfinance regulations put in place by the Banking Commission of Central Africa (COBAC) distinguish between three categories of microfinance establishments (MFEs):

- the first category comprises establishments that collect savings and grant loans only to their members; this category comprises associations, cooperatives, and mutual-benefit organizations;
- the second category comprises all the establishments that collect savings and grant loans to non-members; those are establishments set up as limited liability companies;
- the third category comprises the establishments that do not collect savings but which grant loans to non-members; this category comprises microcredit establishments, projects and companies that grant loans to subsidiaries or mutual-guarantee companies.

The liberalization of the Congolese economy fostered the setting-up of many microfinance institutions whose principal operation is to collect deposits and grant loans. But the massive, unmet demand for proximity money transfer services in the country turned out to be another niche market. Money transfer through microfinance institutions is thus a new product; before, money transfer was the preserve of post offices and banks.

In 2008 there were two microfinance institutions whose principal activity was to transfer funds. The two have branches throughout the country, which enables one to send the money and the recipient to receive it instantly. The money transferred through such

institutions — which in this study are referred to as "money transfer microfinance" — comes from a client (the sender) who instructs the institution to send the deposited money to a client (the receiver) who lives in another locality of the country.

1.2.2. Transaction costs

The term "transaction costs" is used to refer to costs incurred through any procedure of operation that make it possible for two or several individuals to transact with mutual benefits. In this study, the term covers the cost of transfer, the cost of information, the cost of control, and the cost of transport.

1.3. Data and their source

The data on which the argumentation in this report is based came from library research and a filed survey carried out in Brazzaville and Pointe Noire, the two biggest towns of Congo-Brazzaville. During this survey, customers and managers of microfinance institutions were interviewed using a questionnaire and an interview guide. In all, 415 people were interviewed, 259 of whom in Brazzaville and 156 at Pointe Noire. Two microfinance institutions were part of the survey: Horty Services and Charden Farrel. The two were set up in the early 2000's and have set up branches throughout the country. The clients (senders and recipients) of these institutions were interviewed at their various branches before or after the money transfer transaction. To complement the data obtained from the clients, we also interviewed key informants, namely the managers of microfinance institutions and officials from the microfinance directorate at the Ministry of Finance.

The interviews with these managers and officials enabled us to collect information on the number of workers, the wage bill, the amount of money transferred, the kind of ICT used, the cost of use of ICT, the kind of innovation brought into microfinance by the use of ICT, the effect of this innovation, the volume of turnover and the challenges faced by microfinance institutions.

The data collected from the clients were related to the socio-demographic profile of the senders and recipients of money transfers, the nature of these transfers, the transaction costs, the quality and constraints of the services provided by the money transfer institutions.

1.3.1. Data analysis

The survey data were analysed using the Excel application. Descriptive statistics were calculated; estimations were done using the Stata 10 programme. We used an econometric approach, which enabled us to estimate the linear function of the transaction cost incurred by the clients of the microfinance institutions during the money transfer operation. We decided not to estimate the transport cost because some clients walk to the microfinance branch, which would make it difficult to estimate such a cost.

2. The impact of ICT on the supply and demand of money transfers

2.1. The impact on demand

With regard to demand, the components of ICT (the mobile telephone, the Internet, etc.) had a direct impact on the flow of information and money. They had an indirect impact on the volume of money transferred, the satisfaction of consumer and investment needs in other localities, and the improvement of the living conditions of the beneficiaries of the money transfers.

2.1.1. Rapid flow of information and money

The fact that the mobile telephone became accessible to all categories of the population made the money transfer operation easier. For instance, the clients can easily send and receive information from one place to another. All the clients interviewed acknowledged that the mobile telephone was an undeniable innovation that has revolutionized the money transfer system. More than three quarters of them said that they used the mobile telephone to send and control information.

2.1.2. The significance of money transfers

The rapid flow of information and money (made possible by the use of ICT) has led to an intensification of money transfers. Our survey revealed that 86.27% of the clients (both senders and recipients) interviewed transfer money on a regular basis. 55% of the clients said that they transfer money less than ten times a year, 33% between ten and twenty times a year; 7% between twenty-one and forty times, 3% between forty-one and a hundred times, and 2% more than a hundred times. It can thus be observed that the possibility offered by ICT to quickly check information on the money transfer enables the sender clients to send money at least three to four times a day. This was impossible with the system of sending money through the post office.

2.1.3. The impact of money transfers on demand

According to views from clients (senders and recipients), there are a number of reasons, which can be grouped into three categories, for transferring funds: the first concerns investment expenses, which account for 40% (corresponding to 21% of investment proper and 19% of education expenses). The second is consumer expenses in a broad sense, which account for 33% (corresponding to 6% of expenses allocated to accommodation, 20% to consumption, 7% to current consumption, and 6% to death-related matters). The third category comprises health-related expenses, which account for 21%.

Money transfers have impacted in several ways on the living conditions of their beneficiaries. They have enabled these to get enough money to meet their various needs. The clients justified their choice of the use of microfinance as a means of money transfer because of the rapidity of the money transfer (52%), the streamlined procedures followed in the transfer (23%), the security of the transfer operation (12%), the proximity (9%), and the cheaper cost of transfer.

2.2. Impact of ICT on the supply of money transfer services

The money transfer microfinance institutions use three means of communication to link their branches to each other: the Internet, short electronic messages (SMSs), and (mobile and fixed) telephony.

2.2.1. Rapidity of transfers and streamlined sending and receiving procedures

During the interviews, officials from microfinance institutions recognized the important role played by ICT in the rapidity of the fund transfer operation and the streamlined procedures involved. The old system of money transfer was characterized by very cumbersome procedures. And it took a long time, of between one and thirty days depending on the distance, between sending and receiving the money. Further, a study by Balongana and Mafouta (2007) suggests that the security of the money transferred was not guaranteed because sometimes post office workers stole the money sent.

2.2.2. Reduction in the time needed to have access to services provided by money transfer microfinance institutions

The use of ICT by microfinance institutions has enabled a drastic reduction in the time needed to have access to financial services. Indeed, while it used to take more than a day to receive the transferred money, today ten to fifteen minutes are enough if there are no long queues. The Internet, the mobile telephone and the computerization of money transfer microfinance institutions had made it possible to drastically reduce the time required between the sending and receiving of the transferred money.

2.2.3. The indirect impact of ICT on money transfer microfinance institutions

There are several manifestations of indirect impact of ICT on these institutions: an increase in the volume of transfers made and commissions earned, the amount of money paid as wages and the number of jobs created.

The increase in the volume of money transfers

Thanks to ITC, the money transfer microfinance today uses more secure and faster procedures. These rapidity and security have led to an increasing increase in the volume of money transfers.

Table 1: Increase in the volume of transfers over the years (in CFA francs)

Institution	Year 2004	2005	2006	2007	2008	2009*
Horty Services	Not available	155,839,275	16,214,176,500	24,255,418,320	24,923,180,320	14,977,353,440
Charden Farrell	2,571,664,230	7,116,041,855	7,552,635,656	16,131,611,239	15,829,153,678	3,696,131,000
Total	**2,571,664,230**	**7,271,881,130**	**23,766,812,156**	**40,387,029,559**	**40,752,333,998**	**18,673,484,440**

Source: Microfinance Institutions Directorate in the General Directorate of Money and Credit at the Ministry of Finance and the Budget, November 2009

Legend: * = data for the first and second quarters

As a matter of fact, since 2007, on average CFAF 40bn has been transferred by Horty Service and Charden Farrell each year.

Non-negligible commissions are earned from the money transfer activity, as shown in Table 2.

Table 2: Amount of commissions earned (in CFAF)

Institution	Year 2004	2005	2006	2007	2008	2009*
Horty Services	Not available	4,675,178	486,425,295	727,662,550	747,695,410	449,320,603
Charden Farrell	77,149,927	213,481,256	226,579,070	483,948,337	474,874,610	110,883,930
Total	77,149,927	218,156,434	713,004,365	1,211,610,887	1,222,570,020	560,204,533

Source: Authors' computations based on data obtained from the Microfinance Institutions Directorate in the General Directorate of Money and Credit at the Ministry of Finance and the Budget, November 2009
Legend: * = data for the first and second quarters

The share of ICT in the microfinance institution's financial flows

This paragraph analyses the impact of ICT on some financial flows of microfinance institutions. This analysis is based on the data provided by Charden Farrell. In 2008, this firm attained a turnover of CFAF 15.8bn (equivalent to USD 32,000,000 million), earned commissions amounting to CFAF 474.8 million (equivalent to USD 950,000), and recorded a wage bill of CFAF 192 million (equivalent to USD 384,000). When one computes the share of ICT in these financial flows, one realizes that it is low, which points to the vital role of ICT in facilitating the provision of money transfer services (see the table below). This shows that this firm incurs relatively small expenses on ICT, which increases its profit margin. The cost of access to ICT is thus not a problem for microfinance institutions. However, the same thing cannot be said about clients, especially those of them who live below the poverty line.

Table 3: Share of ICT in some of Charden Farrell's indicators

Indicator	Amount	Share of ICT (in %)
Turnover	15,829,153,678	0.15 %
Wage bill	192,000,000	12.50 %
Commissions (raw figure)	474,874,610	5.05 %
Cost of ICT	24,000,000	100.00 %

Source: Authors' computations based on data from the Ministry of Finance and the Budget

The number of jobs created and the amount of money paid as wages

The two institutions studied have created a considerable number of jobs in a country where unemployment is 39% of the working population: 487 agents were employed, 300 by Horty Services and 187 by Charden Farrell. More than 60% of the 487 are female employees.

With regard to the amount of money paid as wages, it is estimated to be CFAF 16 million per month for Charden Farrell and 22.5 million per month for Horty Services.

3. Impact of ICT on the structure of transaction costs

3.1. The structure of transaction costs

On average, money senders incur transfer costs of CFAF 2,058 while the recipients do not incur any transfer cost; they only incur charges related to information, control and transport.

Table 4: Structure of transaction costs (in CFAF) according to the type of clients

	Transfer cost		**Information cost**		**Control cost**		**Transport cost**		**Transaction cost**	
Clients	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Senders	2,058	74	277	10	203	7	258	9	2796	100%
Recipients	0	0	211	44	76	16	189	40	476	100%
Difference	**2,058**	89	**66**	3	**127**	5	**69**	3	**2320**	**100%**

Source: Survey on the impact of ICT on money transfer microfinance in Brazzaville and Pointe Noire, March 2009

It can be observed that for each transfer each client incurs a transaction cost, but that the cost incurred by the sender is higher than that incurred by the recipient: CFAF 2,796 for the former against CFAF 476 for the latter. For the sender, the costs of transfer, information, control, and transport represent 74%, 10%, 7% and 9%, respectively. For the recipient, the cost of the transfer transaction is made up of the cost of information (44%), that of transport (40%) and that of the control of the information (16%).

3.2. The impact of ICT on the transaction cost: an econometric approach

We estimated the impact of two variables that are closely related to ICT, namely the cost of information and the cost of control. These two types of cost are contingent upon access to ICT and the cost of the telephone call, specifically the call made by clients.

Our regression computations showed that the variables "cost of information" and "cost of control" were significant at the 5% level. That is, the two had an impact on the cost of transaction. And the sign for both was positive. This means that the higher the cost of information and that of control, the higher the transaction cost. But it is the cost of control that influences the transaction cost most: indeed, the coefficient for the cost of control was higher than that for the cost of information (4.17 vs. 5.45).

One of the objectives of this study was to measure the effect of access to ICT on the profitability of microfinance institutions. To this effect, we simply measured the share of ICT in the turnover. This share was found to be small, which indicates a significant positive impact on the firm's profitability.

Conclusion

This research has shown that ICT has a positive impact on the demand and supply of the services of money transfer microfinance institutions in Congo-Brazzaville.

For the clients, ICT has three advantages: first, it makes it possible to circulate

information and control it rapidly; second, it enables a rapid flow of funds form one locality to another, even in semi-rural and rural areas; it enables money transfers at accessible rates.

For microfinance institutions, ICT enables them to offer money transfer services to a big proportion of clients, be they poor or non-poor, throughout the country, several times per day, per week and per month. Everybody uses the money transfer opportunities offered by microfinance institutions.

It was also observed that the provision of money transfer services benefited from ICT in two important ways: the rapidity of the transfer operation and the streamlined administrative procedures involved. Indeed, microfinance institutions took full advantage of the innovation that came with the mobile telephone and the Internet in order to improve their services.

Another significant effect is the higher gross margin gained from money transfer operations owing to the use of both the telephone and the Internet by the Charden Farrell firm. The two firms earn non-negligible commissions annually from their money transfer activities.

However, certain constraints were also observed which reduce the benefits of ICT for both the money transfer institutions: the cost of information, environment, and the way clients are welcomed.

The cost of information was indeed found to be high, as the figures in the tables above show. It is a key element that affects the transaction cost. The cost of the unit sold by the big international firms such as Zain and MTN varies between CFAF 150 and 200 per minute. This is still a g-high cost for the poor segment of the population.

An environment characterized by frequent connectivity failures and power cuts causes microfinance institutions to face management and functioning difficulties which obviously negatively impact on the quality of the services provided. Such difficulties also stem from the lack of enough space to operate from, insufficient lighting, long queues, and inadequate reception facilities.

Recommendations

For an increase in the benefits of ICT for both the money transfer microfinance institutions and their clients, we made recommendations to both the regulatory authorities and the money transfer microfinance institutions.

1) To the regulatory authorities, we recommended that:
   a) They improve the infrastructure and the electricity supply;
   b) They reduce the cost of access to ICT;
   c) They maintain competition in the ICT sector so as to foster a reduction in prices and an increase in access to ICT on part of the poor populations.

2) To the money transfer finance institutions, we recommended that:
   a) They combine the use of the telephone with that of the Internet so as to reduce

their ICT costs and thus to increase their profit margins;

b) They improve the quality of the services they provide, particularly the way they handle their clients.