

Overview of COTE D'IVOIRE

Mobile Financial Services Market Data 2013



Authors

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Overview of Cote d'Ivoire mobile financial service E-money data

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BACKGROUND

The mobile money market in Cote d'Ivoire (CDI) is rapidly evolving. In December 2011 there were over 2 million mobile money subscribers. Just two years later, by December 2013, that number had tripled to over 6 million subscribers. There are currently five main market actors in CDI, licensed by the BCEAO to provide Mobile Financial Services (MFS)¹. The BCEAO adopted regulations that permit the activity of nonbank e-money issuers in 2006. Since then, the market has grown considerably and the largest MFS providers are mobile network operators (MNOs) in partnership with financial institutions. The uptake of MFS has significantly

increased the level of financial inclusion in CDI, allowing a population traditionally excluded from the financial system to have access to services such as electronic wallets and micro insurance. According to the BCEAO, in 2009 only 7.35% of CDI population was banked. In 2012, this figure had grown to 14%, representing the number of account holders in banks and MFIs. Moreover, the expanded banking rate (or access rate to financial services) is beyond 21% taking into account the microfinance system, postal services and MFS. Despite this progress, MM accounts still represent twice the amount of formal bank accounts (Figure 1).

FINANCIAL INCLUSION IN CDI (DEC. 2013)

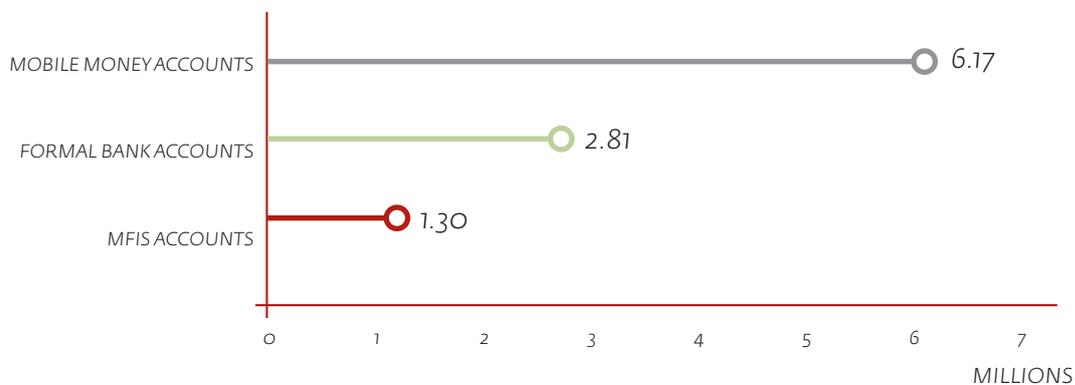


Figure 1 Financial Inclusion in CDI

¹ For the purpose of this note, the terms "mobile money", "MFS", and "e-money" are used interchangeably. The exchange rate used throughout the note is \$ 1= CFA 484.
Glossary=> P2P: Person to Person, G2P: Government to Person, B2C: Business to Customer, C2B: Customer to Business or bill payment.

MFS OVERALL PERFORMANCE

The number of MFS products in CDI has evolved since Orange first partnered with BICICI to launch Orange Money in 2008. Orange is now providing e-wallet and bank account integration in partnership with BICICI and BOA. MTN partnered with SGBCI to launch MTN Mobile Money in 2009 and is now offering a multi-bin platform in partnership with UBA, ECOBANK and BIAO. Moov launched Flooz in partnership with BIAO in 2013. Two independent MFS providers are also present: Celpaid has been active since 2010, and Qashservices obtained its e-money license in 2013 and launched in the first quarter of 2014. In addition, payment services such as E-Tranzact and W@ri also operate in the Ivorian market. These companies provide bill payments and remittances on behalf of customers in return for a fee per transaction but do not use electronic money as the other five do, hence they are not included in the following data analysis.

The BCEAO started collecting e-money data in 2009 from the licensed MFS providers in an effort to monitor market trends and bring transparency to the industry. This document provides an overview of the aggregated data provided by the BCEAO to IFC for the four quarters of 2013². The document first reviews MFS overall performance in CDI with in-depth analysis on transactions by volume and type, it then looks at the flows of e-money and highlights an interesting trend of 'safe storage' behavior, followed by a review of the agent activity. It concludes with some thoughts on where the MFS market in CDI is heading next.

The overall performance indicators show that MFS has reached a reasonably high level of adoption in CDI with over 2 million active customers³ by the end of 2013 and CFA 1,200 billion (\$2.5billion) of transactions during the year. Agent outlets are fairly widespread with over 12,000 service points around the country. However, it should be noted that agent outlets are not exclusive and some provide services for multiple MFS providers, so the number of individual outlets is not clear. Against the accepted industry benchmark of a successful MFS having one million active customers, CDI can be considered a maturing MFS market.

KEY PERFORMANCE INDICATORS	TOTAL FOR 2013
Registered customers	6,170,676
Active customers*	2,109,682
Total transaction volume	68,639,172
Total value txns CFA billion	1,200
Total value txns \$	2,479
Total agents*	12,093

*The active customer and total agent figures include estimates for one MFS provider.

The GSMA (Mobile Network Operator industry association) Mobile Money Unit has a more complex definition of a successful MFS and by their standards Cote d'Ivoire is considered a *sprinter*⁴ and thus "one of the fastest growing mobile money services in the world".

² IFC launched an MFS program to promote usage of MFS in CDI in 2013 and this report is part of the market intelligence component of the program. The BCEAO cooperates with IFC by sharing e-money data on a frequent basis to monitor market trends. The authors mainly analyzed e-money data collected by the BCEAO for 2013. The IFC team conducted also 2 deep dive missions to rural areas in CDI in order to understand qualitatively MFS usage patterns and quantitative research on mobile financial services use in Haut-Sassandra and Bas-Sassandra. The document respects confidentiality of provider and does not share individual market actor data.

³ An 'active customer' is defined as a customer account that has been used in the past 3 months for a financial transaction. This is a standard industry definition in most markets.

⁴ GSMA sprinter definition can be found at: http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/02/MMU_State_of_industry.pdf
In a recent report the GSMA classified Cote d'Ivoire, despite a slow start, as now being a MFS sprinter: http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/05/MMU_Cote_dIvoire_Turnaround_Story.pdf

MFS Customers

All MFS providers increased the number of registered customers in 2013. In total, over 2 million new customers were registered for MFS accounts (Figure 2).

GROWTH OF REGISTERED CUSTOMERS IN 2013



Figure 2 Growth of total number of registered MFS customers in 2013

In all markets registering new customers is relatively easy, if costly; a far bigger challenge is to convert them into active, and therefore revenue generating customers. Of the 6.2 million registered customers in CDI, the proportion of active customers varied significantly between MFS providers. There was a 27% difference between the most and least successful services in converting registered customers to active ones, with the average being 31% active customers across all MFS providers. So whilst MFS adoption is good, with over 2 million active customers in total, there is room for growth.

A major challenge for the industry is to understand why so many accounts are inactive and to take steps to increase usage. Probable reasons for inactivity include a mix of demand and supply factors, and some key ones to take into account are⁵:

On the demand:

- Weak customer proposition: a lack of relevant purchasing occasions for which the customer can use MFS (this is particularly relevant in markets where P2P transfers are less common).
- Customer experience and poor understanding of the service: causes are typically linked to fraud issues, technology issues, literacy levels, and agent performance issues.
- Acquaintances' feedback: new users or light users of MFS are influenced by feedback and criticism of their acquaintances that had used the service.

On the supply:

- Proximity of MFS agents: the ease of access to a service point plays a major role in customers' usage. The lack of active and liquid agents located near the customer creates a barrier to usage.

⁵ IFC is currently conducting a study on MFS users' inactivity with two providers. Results are expected by beginning 2015

- MFS providers' incentive system: recruitment targets that are based on registration numbers rather than active customers.
- Cost of service: high fees and poor understanding of the fee structure.

Total Transactions

While activity of clients remains an issue, the volume of transactions, i.e. transaction numbers, showed good growth during the year with an increase of 124% between the first and the fourth quarters. Most of the services experienced similar percentage growth levels indicating a general increase in demand across the market (Figure 3).

GROWTH OF TRANSACTION NUMBERS (VOLUME) IN 2013

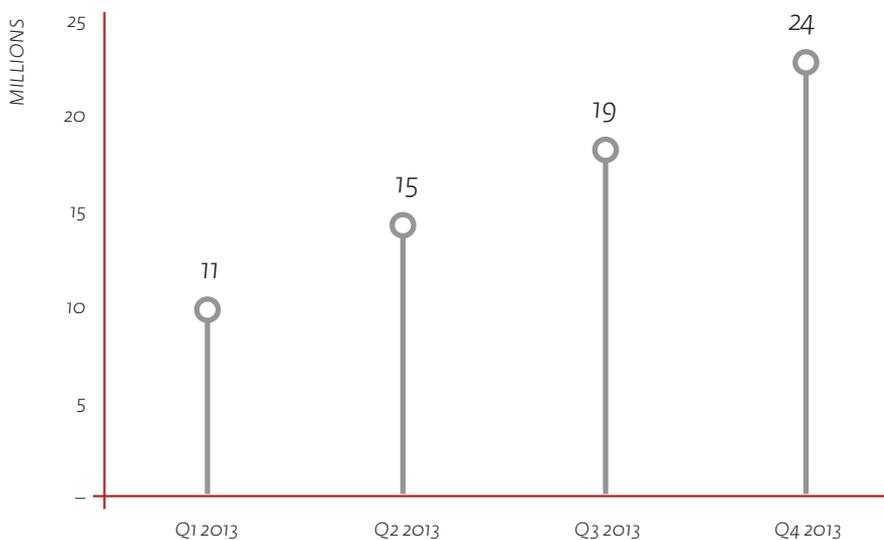


Figure 3 Total transaction volume per quarter in 2013

Transaction value growth was 123% over the year, in line with volume growth. This evolution could be justified by the fact that more transactions of similar value are taking place over the year, rather than the volume increase being due to more frequent, lower value transactions.

GROWTH OF TOTAL TRANSACTION IN 2013

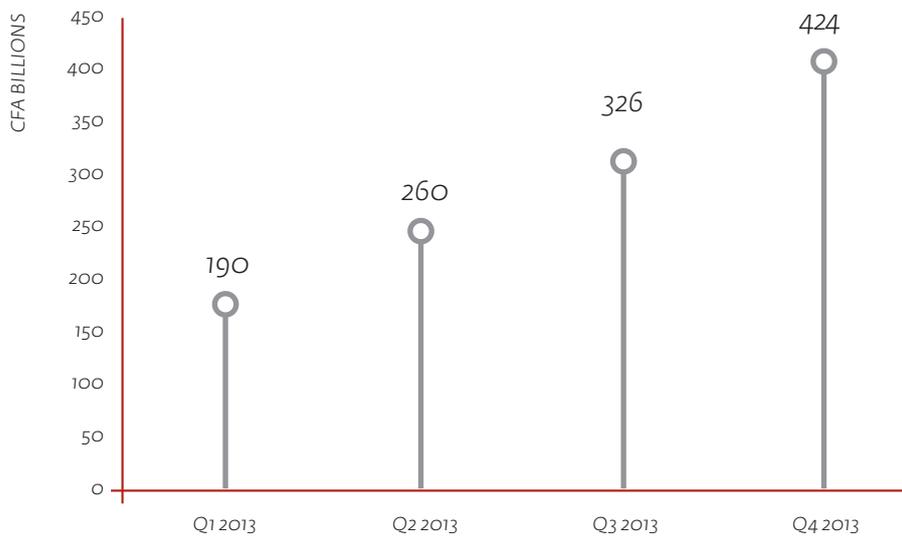


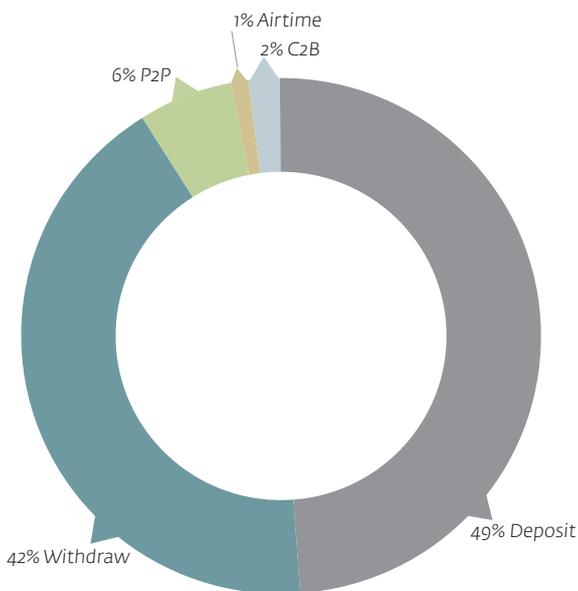
Figure 4 Total de la valeur des transactions par trimestre en 2013

This indicates that the new customers to the service seem to have been transacting similar amounts to the more mature MFS users. Over time it may be expected that new customers are less affluent and do lower value transactions; this does not yet seem to be the case in CDI. As more data is collected, the customers' behavior will become clearer, particularly regarding any seasonality trends in this strongly agrarian economy.

Transaction Types

Nearly 90% of e-money value moving through the MFS systems was either deposit or withdrawal transactions. The data appears to indicate that in CDI the majority of the money deposited into a mobile money service was later withdrawn without being involved in any other type of transaction. Only 23% of the amount deposited was used for any other type of transaction than a withdrawal.

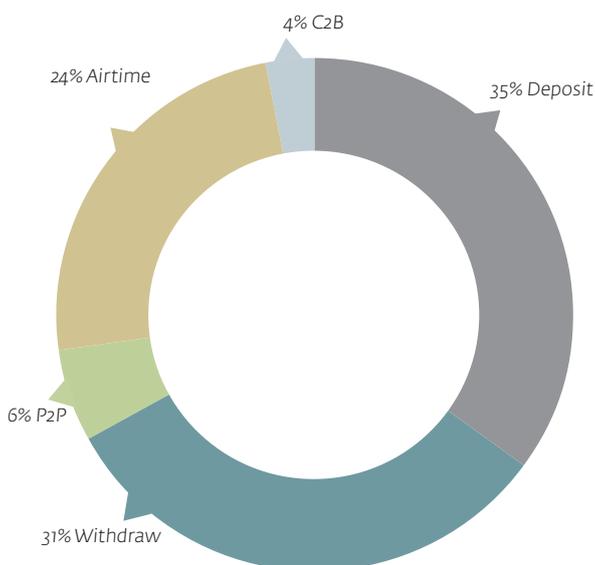
TRANSACTION VALUES 2013 TOTAL



Airtime is the lowest value item in all markets and so it is in CDI. Although it contributes significantly to transaction volume, its share of value is therefore relatively low. In 2013 there were nearly 16 million airtime purchases, accounting for nearly a quarter of all transactions performed but contributing around 1% of value.

While there is high demand for domestic remittances using MFS in East Africa⁶ resulting in a high usage of P2P transactions, this type of transaction is observed to be less common in CDI. A deeper analysis of the domestic remittance market will require understanding how W@ri or other platforms are fulfilling the remittance need in this region. Formal domestic remittances appear less popular in CDI. They accounted for only 6% of total MFS activity in 2013, with just 3.8 million transactions. For every CFA 100 deposited into the MFS systems, only about CFA 6 was sent to other people using a P2P transaction.

TRANSACTION VOLUMES 2013 TOTAL



C2B by MFS is relatively new to CDI and not offered by all MFS providers. It accounted for 4% of transactions in 2013. For every CFA 100 deposited, only CFA 4 was used to pay bills. This might increase as the main utility company's exclusive use of one MFS provider for bill payments will end in 2014.

It should be noted that no B2C transactions were reported, although it is understood that there were a number of transactions originating from the World Food Program, and potentially others. This was almost certainly due to the way the data was collected.

Figure 5 Breakdown of transaction types by a) value and b) volume

⁶ The introduction of MFS did not create the strong P2P activity in East Africa; it supported an existing popular activity.

MFS as a Safe Storage Tool

An interesting trend appears in CDI when looking closely at the data: the most common customer behavior seems to be to deposit money into an MFS account for a period of time and then to withdraw it again. This indicates that the predominant use of MFS is for "short term safe storage" of funds. This behavior is seen in many markets, but it appears particularly popular in CDI. This is consistent with the anecdotal evidence recently gathered from focus groups in the north and east of the country by IFC. It is increasingly evident that customers consider MFS as an effective safe storage mechanism. Given the lack of banks, MFIs or cooperatives in rural areas, people seem to deposit cash in an e-wallet instead of travelling with cash. In addition, small traders appear to store their takings in MFS accounts for safe-keeping when the bank is closed.

A potential contributing factor to relatively low level of P2P transactions may be the phenomenon of "direct deposits" which is when the sender makes the deposit at the agent directly to the recipient account in order to avoid the P2P fees, i.e. gives the recipient's phone number instead of his or her own. This should be avoided because it both contravenes Know Your Customer (KYC) and Anti-Money Laundering (AML) regulation and also deprives the MFS operators of income to maintain the service. However, this is unlikely to form a significant part of the large discrepancy between deposits and the amount "spent" on transactions other than withdrawals.

TRANSACTION VALUE GROWTH BY TRANSACTION TYPE



Figure 6 Total transaction value growth by type

Transaction Value

In 2013, most types of transaction grew in value (Figure 7). Bill payments are an exception, declining in value in the fourth quarter. Further research into the reasons why should be conducted to understand how usage patterns evolve over time.

The average transaction value depends on the transaction type. On an aggregated basis, it is normal for the total amount of e-money deposits to be of slightly higher value than the e-money withdrawn because of transaction fees: deposits are generally free, but the customer has to pay a fee to perform most other transactions and thus on an ecosystem basis the amount of deposits is higher to cover transfer fees. In addition, customers often deposit a little extra to buy airtime and for other purposes. In CDI the figures showed average deposits of CFA 26,800 (\$55.37) and average withdrawals of around CFA 26,000 (\$53.71) indicating that the full amount was generally being withdrawn, minus withdrawal fees.

The average amount sent as P2P transfers was a little lower at CFA 21,500 (\$44.42), implying that nearly CFA 5,000 (around \$10) is left in the senders account after the transaction and associated fees. This suggests that perhaps the customers who perform P2P transfers may be more likely to also use the remaining funds deposited for other reasons as well. In addition, the amount sent by P2P is relatively high compared with other markets (in Kenya the average P2P is around \$30) suggesting that P2P is being used more by businesses than by individual customers for what could be considered B2B transactions.

Bill payments averaged CFA 11,700 (\$24.15) and the average airtime purchase was CFA 600 (\$1.24).

TRANSACTION VALUE GROWTH BY TRANSACTION TYPE

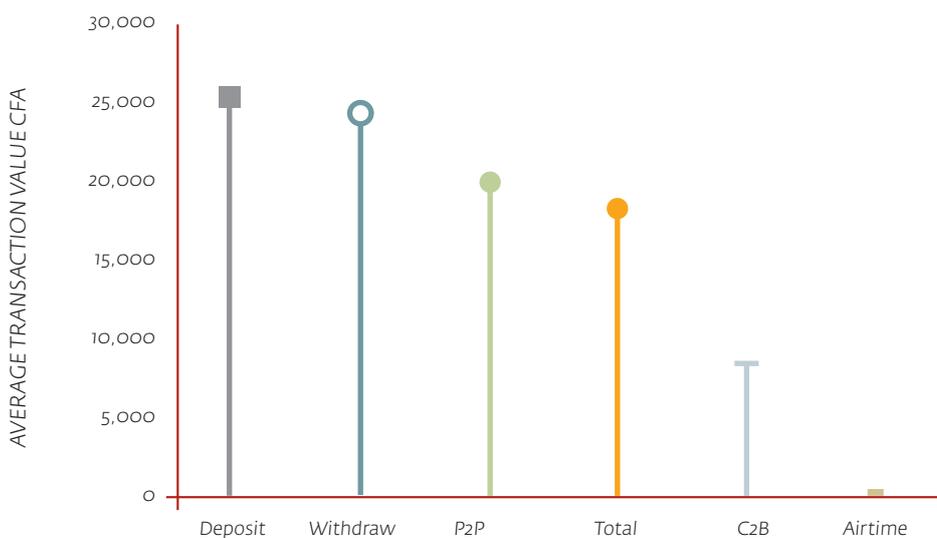


Figure 7 Average transaction value for each transaction type

⁷ Page 11 http://www.afri-global.org/sites/default/files/GPF_Betty_Mwangi-Thuo.pdf

The average amount being deposited per transaction was fairly high, suggesting that many of the customers may be either relatively well-off individuals or they are engaged in business transactions of some kind. Certainly they do not appear to be the very poor at the bottom of the pyramid. To understand whether this is really the case it would be useful to analyze the transaction value distribution in a given period. For mobile money services it is common for the average to be a misleading indicator because high volumes of low value transactions are offset by smaller numbers of very high ones that skew the averages. These high value transactions may be attributed to businesses using MFS.

Figure 8 Typical distribution of MFS deposit values in other markets

AVERAGE TRANSACTION VALUE BY TRANSACTION TYPE

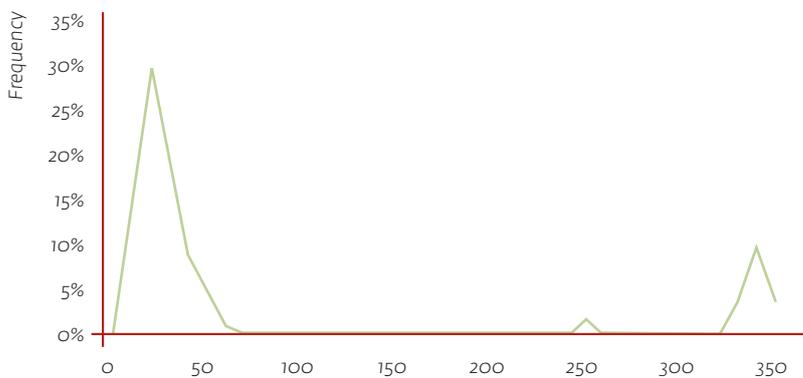


Figure 8 Typical distribution of MFS deposit values in other markets

To demonstrate the point, Figure 8 shows a typical distribution curve of transaction values for a hypothetical MFS provider. The most common transaction value is \$20, yet the average transaction value is \$86 because of a relatively small number of high value transactions that skew the average. This can lead to a mistaken view of the typical customer's MFS activity.

To fully understand customer behaviour, this kind of transaction distribution analysis can be very helpful.

HOW DOES E-MONEY FLOW IN CDI?

In 2013, The flow of funds in and out of the MFS ecosystem in CDI indicates that about 7% of all value deposited into the system during the year (CFA 46 billion / \$95 million) was left there for future use by customers, i.e., held as a form of longer-term savings (Figure 9). This is fairly typical of successful MFS implementations; when M-PESA in Kenya was around this size, about 10% of cash was left in the system for an extended period. These "savings" are not remunerated with interest payments.

Mapping the e-money flows in and out of the MFS accounts reinforces the finding that a person who deposits cash is likely to later withdraw most of it. Of the total CFA 633 billion deposited, only CFA 165 billion or 26% was "spent" on transactions, i.e. P2P, various payments and longer-term savings. This indicates that the majority of e-money is held in safe storage for a short period of time and then withdrawn.

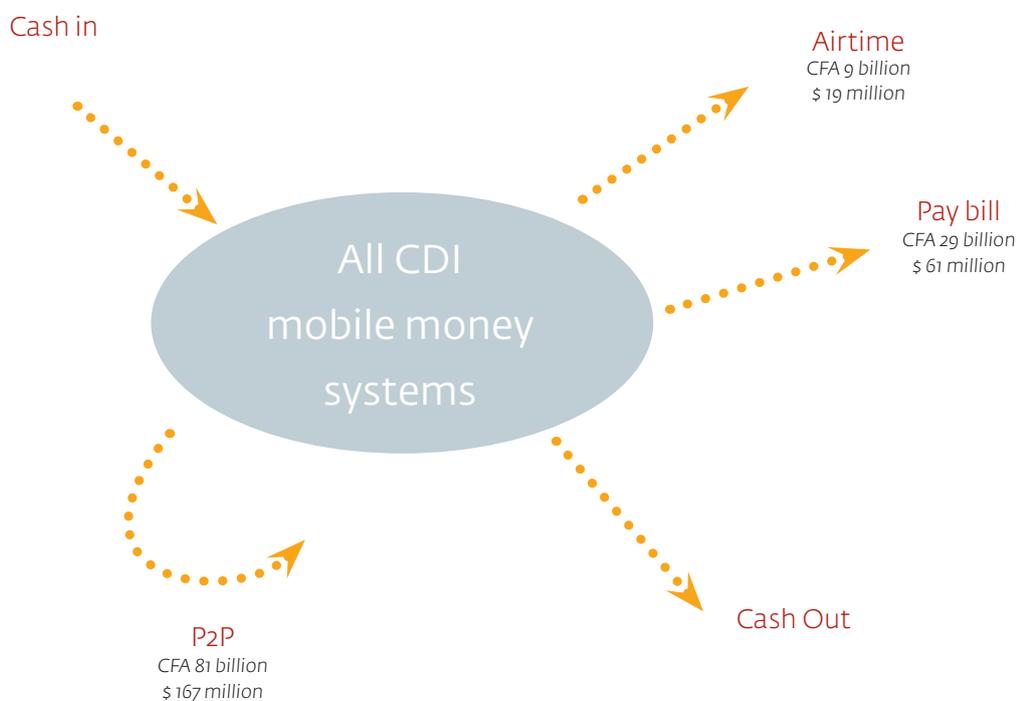


Figure 9 Cumulative e-money flows through MFS in 2013

MFS AGENT NETWORKS

TRANSACTION	CFA BILLION	\$ MILLION
Cash in	+633	+ 1,307
Cash out	-549	-1,134
P2P	81	167
Airtime	-9	-19
Pay bill	-29	-19

Funds remaining in the system were constant for most of 2013, but grew in the fourth quarter to nearly 9% suggesting that increasing numbers of people are taking advantage of the “safe storage/ savings” aspect of MFS towards the end of the year; this may be a seasonal behavior or it may be that customers were gaining confidence in MFS as a safe storage mechanism. Only a multi-year analysis will be able to tell.

% OF FUNDS DEPOSITED REMAINING IN SYSTEM	Q1	Q2	Q3	Q4	AVERAGE 2013
	6.2%	6.2%	6%	8.7%	7%

In 2014 some MFS providers have started to offer the ability for customers to transfer funds between a conventional bank account and an MFS account using an e-wallet. It is important that in the future these new flows of funds to and from the MFS are reported separately from agent deposits and withdrawals in order to understand the absolute amount of e-money entering the system and the level of participation by agents. It may also be possible to use this functionality to encourage creation of more formal, interest-bearing savings solutions for customers through partnership between MFS providers and banks.

At present, agents are responsible for providing most of the liquidity in the MFS ecosystem. In 2013 nearly all the e-money in the system came from deposits at agent outlets. With 12,093 agents servicing CFA 633 billion in deposits, this means that on average each agent provided nearly CFA 52 million (\$108,000) e-money in deposits. In addition, they each provided CFA 45 million (\$94,000) of cash for withdrawals. This is a large amount for small traders to source and requires constant management of the balance between the cash and e-money held by the agent as float. This can be time-consuming and expensive for agents. During interviews with agents in rural areas, IFC observed that agents used third parties to deliver cash to branches, or to collect cash and deliver it to the bank. All other things equal, this should impose an additional cost on business.

AGENT ACTIVITY	TOTAL
Number of agents	12,093
Average registered customer per agent	510
Average active customers per agent	174

It is not clear what proportion of the agents are active given data unavailability. It is probable that as many as 50% of the claimed agents are inactive. In that case, the money management burden on the active agents is even higher.

Generally, the number of agents is high compared with the number of active customers in CDI. In other markets it has been estimated that, on average, an agent needs around 150 – 800 active customers in order to have a profitable MFS business⁸. However, the high values being traded in CDI and the resulting higher agent commissions may result in the current activity being sufficient to provide an acceptable income to agents.

⁸ Page 7 http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/02/MMUPesa_2013_BR-Final-Version.pdf

MFS MOVING FORWARD

MFS in CDI gained significant momentum in 2013 with more than double the number of both active customers and transactions compared with the previous year. The trends indicate that this growth will continue through 2014. Airtime purchase, P2P transfers and bill payments, the most common uses of MFS in most markets, grew over the year and should continue to do so. However they account for only a quarter of the money deposited by customers.

The data seem to indicate that the majority of customer activities are related to safe storage of funds rather than commerce. Safe storage is apparently a service that customers require, as demonstrated by its high usage, and it serves a clear customer need despite not being a product per se and being an unintended consequence of how MFS operates. However, cash in and cash out have high operating costs due to the commission payable to agents for providing these transactions, and the business case of most MFS providers relies on transaction fees from non-agent transactions to provide the revenue needed to achieve profitability. An objective of the MFS providers should be to encourage higher usage of funds deposited for bill payments, P2P transfers and other revenue-generating transactions. There may also be regulatory concerns about MFS being used for a service considered as the traditional role of the banks (although the current CDI banking infrastructure would probably be unable to meet the needs MFS customers demonstrate).

The customers' obvious desire for a safe place to keep money, coupled with the new functionality allowing transfers between bank accounts and MFS accounts presents a major opportunity for banks and MFIs to extend services. Specifically, there is an opportunity for financial institutions to work with MFS providers to create savings products that can be offered via MFS, allowing customers in even the most remote areas to enjoy the benefits of an interest-bearing savings account. Similar services have recently been offered in other markets.⁹

In future data collection, it would be interesting to see more granularity about the spread of transaction values as this would give a better understanding of customer wealth. Greater understanding of agent activity would also be helpful as MFS is entirely dependent upon good quality agents and it is currently unclear how the agents' income from transactions compares with their operating costs for money management and whether they have a viable long term business.

The MFS market in CDI faces many challenges and opportunities. It is already one of the world's MFS success stories and can be expected to become even more successful in the future.

⁹ M-Shwari has generated a lot of interest: http://www.ifc.org/wps/wcm/connect/91a41e8040475ba0b90d8b82455ae521/Tool+10.3.+Case+Study_M-Shwari.pdf?MOD=AJPERES

The PARTNERSHIP FOR FINANCIAL INCLUSION is a joint initiative of IFC and The MasterCard Foundation to expand microfinance and advance mobile financial services in Sub-Saharan Africa. The Partnership is also supported by the Bill & Melinda Gates Foundation and the Development Bank of Austria (OeEB, Oesterreichische Entwicklungsbank AG), and collaborates with knowledge partners such as the World Bank and the Consultative Group to Assist the Poor (CGAP). An important objective of the Partnership is to build and share industry knowledge for the public good. This publication is part of a series of research reports published by the program.

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