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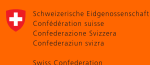
MOBILE MONEY SERVICES: “A BANK IN YOUR POCKET”

Overview and opportunities



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Background Note

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ACP Observatory on Migration

The ACP Observatory on Migration is an initiative of the Secretariat of the African, Caribbean and Pacific (ACP) Group of States, funded by the European Union, implemented by the International Organization for Migration (IOM) in a Consortium with 15 partners and with the financial support of Switzerland, IOM, the IOM Development Fund and UNFPA. Established in 2010, the ACP Observatory is an institution designed to produce data on South-South ACP migration for migrants, civil society and policymakers and enhance research capacities in ACP countries for the improvement of the situation of migrants and the strengthening of the migration–development nexus.

The Observatory was established to facilitate the creation of a network of research institutions and experts on migration research. Activities are starting in 12 pilot countries and will be progressively extended to other interested ACP countries. The 12 pilot countries are: Angola, Cameroon, the Democratic Republic of the Congo, Haiti, Kenya, Lesotho, Nigeria, Papua New Guinea, Senegal, Timor-Leste, Trinidad and Tobago and the United Republic of Tanzania.

The Observatory has launched research and capacity-building activities on South-South migration and development issues. Through these activities, the ACP Observatory aims to address many issues that are becoming increasingly important for the ACP Group as part of the migration–development nexus. Documents and other research outputs and capacity-building manuals can be accessed and downloaded free of charge through the Observatory’s website (www.acpmigration-obs.org). Other upcoming publications and information on the Observatory’s activities will be posted online.

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Document prepared by María Paula Subia and Nicole Martinez, Junior Researchers, ACP Observatory on Migration.

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1. Introduction

« In a remarkably short period of time, internet and mobile technology have become a part of everyday life for some in the emerging and developing world. Cell phones, in particular, are almost omnipresent in many nations. People around the world are using their cell phones for a variety of purposes, especially for calling, texting and taking pictures, while smaller numbers also use their phones to get political, consumer and health information » (Pew Research Center, 2013).

Mobile technologies are changing economic life in developing countries, where many people are using cell phones for a range of financial transactions, such as receiving and sending money transfers. Indeed, mobile money is already being used by banks and mobile network operators to provide millions of unbanked consumers a way to store and access money digitally. The limited information available suggests that for millions of consumers in developing countries, mobile money is transforming lives by providing access to financial services and the ability to pay and be paid electronically—sometimes for the first time in their lives. Mobile financial services, known as “mobile money”, allow unbanked people to use their phones as a bank account: to deposit, withdraw and transfer money with their handset. People can also use mobile systems to pay utility bills and pay for goods in merchant shops.

Developing countries are severely constrained by limited infrastructure and the difficulties of accessing financial institutions. Consequently, more than 2.5 billion adults —about half of the world’s adult population— are unbanked (World Bank, 2014). The reasons behind the exclusion of such a large number of people are related to barriers such as cost, travel distances and documentation requirements for opening a bank account in developing countries. However, of the world’s 7 billion people, there are now 6 billion phone subscribers: over one billion of the unbanked people in the world have access to a mobile phone (GSMA, 2013). “Across UN-designated Least Developed Countries¹ (LDCs), including 40 African, Caribbean and Pacific (ACP) countries², mobile phone

1 “The world’s most impoverished and vulnerable countries. The least developed countries (LDCs) are a group of countries that have been classified by the UN as “least developed” in terms of their low gross national income (GNI), their weak human assets and their high degree of economic vulnerability”. Available from: www.nationsonline.org/oneworld/least_developed_countries.htm.

2 Angola, Benin, Burkina Faso, Burundi, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Ethiopia, the Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Rwanda, Samoa, Sao Tome et Principe, Senegal, Sierra Leone, Somalia, Sudan, Timor-Leste, Togo, Tuvalu, United Republic of Tanzania, Vanuatu and Zambia.

penetration in 2011 was at 30 percent while access to a formal bank account was at 14 percent in average” (UNCDF, 2013). Mobile money services have been deployed in developing countries as a means of extending financial services to the unbanked, but more robust research is needed on the direct link between the use of mobile money services and easier access to financial services.

“Mobile money” services started in Kenya in 2007 through M-PESA (“M” for “mobile”, “pesa” for “money” in Swahili), a popular mobile money service offered by a local mobile network operator, Safaricom³. Since then, the mobile money industry has rapidly expanded, particularly in developing economies in Africa and South Asia such as India, Bangladesh, and Pakistan. It has been optimistically described by policymakers, the media and above all mobile phone companies as a prospective means to economic development and poverty reduction, even without the support of an adequate evidence-base.

As the use of mobile phones for money transfer is relatively recent, there are no comprehensive studies on the subject apart from for analysis focusing on specific countries, sectors, and case studies. The present document is based on existing publications on the subject. In particular, the case of Kenya receives a specific attention. Sources combine academic publications with a majority of non-academic documents covering this topic, including studies by the mobile money industry. This Background Note will introduce the main concepts related to mobile money and subsequently provide an overview of its main trends and features in developing countries, drawing primarily on information from the case of Kenya. Finally, this paper will present a preliminary assessment of the impact of mobile money on human development, as well as some general conclusions.

2. Definitions

The definition of “mobile money” varies across the communication industry as it covers a wide scope of overlapping applications (Dermish et al., 2011; GSMA, 2013). In general, mobile money is a term describing *electronic financial services performed via a mobile phone*. There are three major **mobile money services**: “**mobile banking**”, “**mobile payments**” and “**mobile transfers**” (see the explanation below). It is worth noting that the term “mobile banking” is often confused and used interchangeably with the overall category of “mobile money” in research and literature. However, mobile banking is only one type of mobile money service: it allows customers of a financial institution to access

3 <http://www.safaricom.co.ke/>.

their accounts and to perform transfers and payments. This service is therefore only available to people who possess a formal bank account. Mobile banking is a financial service often available in developed countries, but not in most developing countries due to the low level of financial inclusion through official financial systems/banks.

In the case of developing countries, other mobile money services are mostly used by people who do not have personal bank accounts. Indeed, customers often rather use “**mobile payment**” and “**mobile transfer**” services, which are available from their mobile phones without the need for a bank account. In practical terms, these two services are accessible from an electronic account, linked to the SIM card in the mobile phone. This electronic account is known as “**mobile wallet**” and is protected by a personal identification number (PIN), with accounts debited or credited as soon as the transaction takes place. To transact, mobile phone users need to deposit cash into their mobile wallet at the outlet of an agent of a local mobile telecommunications company. The agent will get the money from the customer and transmit it to the company through his/her own mobile phone. If mobile phone users wish to withdraw cash from their mobile wallet, they also need to go to a mobile money agent outlet.

In the framework of these mobile money services, the sender’s and receiver’s mobile wallets are not linked to their individual bank accounts but to their SIM cards. The balances of all their mobile wallets are maintained by the mobile network operator.

Mobile payment (also known as “m-commerce”) is a service allowing unbanked people to **purchase or sell goods and services at a merchant shop/store** (or remotely) **using their mobile wallet through their mobile phone, instead of cash**. Unbanked mobile phone users can also pay utility bills via their mobile wallet. In the case of a face-to-face payment at a merchant shop, mobile financial transactions are done in the following manner: first, the customer gives the merchant his mobile phone number. The merchant then requests payment via the telephone service provider website or by SMS with the customer’s mobile number. The telephone service provider then sends an SMS to the customer with a Bill Reference Number. The customer authorizes the payment by replying to the SMS with his customer 6-digit Security PIN and the Bill Reference Number. Finally, the telephone service provider sends a payment notification with details to both the merchant and the customer.

Mobile transfer (also known as money transfer “person-to-person” - “P2P” - or “mobile remittances”) is a service that **allows unbanked people to send or receive small sums of money to/from any other mobile phone user** (even if they are subscribed to different telephone service providers) **across the country, from urban to remote rural areas, and across international borders.** In practical terms, the customer must first deposit cash into his mobile wallet. Then, on the phone menu, the customer selects the option Send Money, and enters the recipient’s phone number, the amount he wishes to send and his 6-digit Security PIN. The sender can confirm that all the information entered is correct. The receiver will get a text message that he can show to a local mobile company agent to receive the money in cash.

Remittances:

Money or material goods sent from one private entity to another. Remittances include any informal credit and debt repayments between family members or friends who live elsewhere, any repayment of debts, or payments for goods and services.

Informal remittances:

All monetary and in-kind transfers of goods through channels other than banks and other financial institutions (such as micro-finance institutions; MFIs, and postal offices) captured in national balances of payments.

Source: InterMedia, 2013.

Until now, mobile money services were mainly used to send or receive remittances to provide financial support to family members living in different households. Yet, unexpected and innovative uses of mobile money services have also emerged, such as paying school fees, public transportation, taxi drives, paying for social events such as funerals and weddings, and making informal loans repayments (Omwansa, 2009). Another innovative extension of the mobile wallet is the use of the prepaid airtime⁴ scratch cards (also known as “e-vouchers”) as a sort of virtual currency, in the rural areas of Nigeria, Kenya and the Philippines (Omwansa, 2009). For instance, prepaid airtime can be used as a means of exchange with local merchants instead of paying with cash. Another example is the case of workers who are given a part of their salary in cash and the rest in the form of a prepaid scratch card that can be traded for cash with local merchants or others.

⁴ Prepaid airtime is the amount of time that can be spent talking on a mobile.

Figure 1: A mobile money agent in rural Tanzania for MMT M-PESA



Source: USAID, 2012.

3. Data and facts

a. History of mobile money

Mobile money was initially made popular by Safaricom and Vodafone’s M-Pesa (“M” for “mobile”, “pesa” for “money” in Swahili) in Kenya, which started in 2007. The M-Pesa application is installed on the SIM cards of customers and works on all handset brands. It is free to register and the user does not need to have a bank account. Safaricom receives fees for withdrawals and transfers, but keeps deposits into the mobile wallets free. The transfer service was quickly picked up for use as an informal savings account system and electronic payment mechanism for bills, goods and services.

With M-Pesa, Kenya is at the forefront of the mobile money revolution: the number of agents across the country increased by 40 percent in 2013. It is now estimated that 24.8 million subscribers use mobile money services, like M-Pesa, in Kenya (Communication Commission of Kenya, 2013). According to the Pew Research Center’s 2013 survey report, the number of Kenyans using mobile wallets to make or receive payments is higher than any of the other 24 countries surveyed: 50 per cent of the Kenyan adult population uses mobile money services (Pew Research Center, 2013).

Mobile money services have spread rapidly in many developing countries. However, only a handful of these initiatives have reached a sustainable scale, in particular GCASH and Smart Money in the Philippines; Wizzit, MTN Mobile Money and FNB in South Africa; MTN Mobile Money in Uganda; Vodacom M-PESA and Airtel in Tanzania; Celpay Holdings in Zambia and MTN Mobile Money, Orange Money in Côte d'Ivoire.

The Philippines was one of the earliest adopters of mobile money services when SMART Communications launched SMART Money in 2001. The service, which uses SIM Tool-Kits, enables customers to buy airtime, send and receive money domestically and internationally via mobile, and pay for goods using a card. In 2004, Globe Telecom launched GCASH. This service provides a cashless method for facilitating money remittances, settle loans, disburse salaries or commissions and pay bills, products and services via text message.

In South Africa, MTN Mobile Money was launched in 2005 as a joint venture between the country's second largest network operator MTN and a large commercial bank, Standard Bank.

In Uganda, MTN was the first operator to launch mobile money services in 2009 and remains, by far, the market leader (Intermedia, 2012). By law, each mobile money provider has to partner with a bank. However, users do not need a bank account to use mobile money services.

In Tanzania, Airtel was the first mobile network operator to introduce a phone-to-phone airtime credit transfer service, "Me2U," in 2005 (Intermedia, 2013). Airtel partners with Citigroup and Standard Chartered Bank to provide m-money services, including bill payments, payments for goods and services, phone-to-phone and phone-to-bank money transfers, and mobile wallets. In 2008, Vodacom Tanzania launched the second East African implementation of the Vodafone m-money transfer platform, M-Pesa.

Finally, in Côte d'Ivoire two mobile operators, Orange and MTN, are competing head to head in the mobile money market (CGAP, 2012). Orange Money was launched in 2008 by Orange in partnership with BICICI (BNP Paribas), and MTN Mobile Money was launched in 2009 by MTN in partnership with SGBCI (Société Générale) (GSMA, 2014).

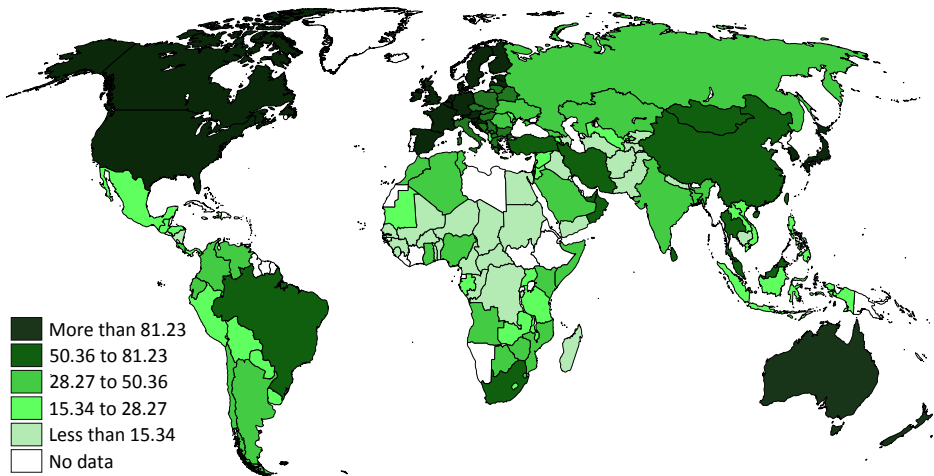
b. A quick overview in figures

There are 2.5 billion unbanked adults in the world. While in developed countries between 80 and 90 per cent of adults have formal bank accounts, the percentage drops to between 39 and 20 per cent in developing countries

(see figure 2). The difference is even wider when it comes to credit cards: half of adults have them in developed countries while only 7 percent in developing countries (World Bank, 2014).

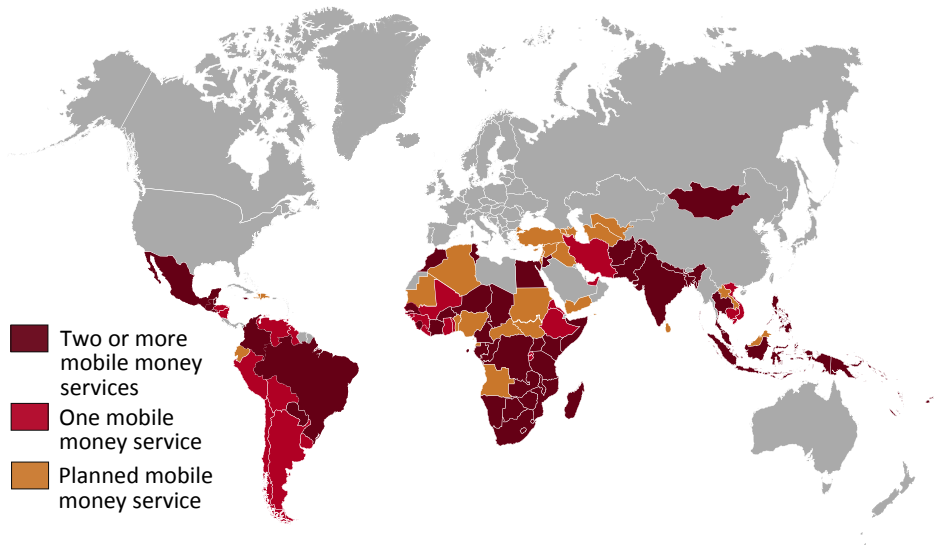
By contrast, mobile money is now available in most developing countries. At the end of 2013, there were 219 mobile money services operating in the world. Eighty-four countries have mobile money services (see figure 3), which accounts for about 40 percent of all countries in the world. It is worth noting that 52 percent of mobile money services are located in Sub-Saharan Africa. In 2013, mobile money services significantly expanded outside Sub-Saharan Africa and expanded in nine new markets: the Plurinational State of Bolivia, Brazil, Egypt, Ethiopia, Guyana, Jamaica, Tajikistan, Togo and Vietnam. Moreover, 19 mobile money services launches are expected to be launched in Latin America in 2014 (GSMA, 2013).

Figure 2: Percentage of people older than 15 years old with an account at a formal financial institution in the world (2014)



Source: Adapted from World Bank, 2014.

Figure 2: Number of live mobile money services for the unbanked by country (December 2013)



Source: Adapted from GSMA, 2013.

4. Opportunities and challenges

Mobile money transfer services can be seen as having an impact at the micro-economic and macro-economic levels with related effects and opportunities.

a. Micro-economic level

Mobile money services are highly accessible to all segments of society for three reasons: they are faster, more convenient and cheaper than formal financial services.

- *Making money transfers faster and more convenient through a wide territorial outreach*

Mobile phones are introducing financial services in remote areas where conventional banks have been physically absent or remain too expensive. The formal financial sector in developing countries suffers from structural weaknesses and restrictive conditions (prices, documentation required) that practically exclude rural and low-income populations from accessing it. The

main reason why banks do not offer their services to the majority of people in developing countries, and especially in rural areas, is related to the high transaction costs faced by banks to set up branches or ATM machines in areas with low infrastructure levels. The unprecedented growth and popularity of mobile money in many ACP countries is due to the affordability of mobile phone systems compared to formal banking costs. Indeed, according to an analysis in ten countries carried out by the Consultative Group to Assist the Poor (CGAP)⁵, on average, mobile money services are at least 19 percent cheaper than traditional banks. The cost of formal banking in many African countries is especially high: in some countries the minimum deposit can be as high as 50 per cent of GDP per capita. Consequently, unbanked people in the ACP countries often use informal financial services. For instance, when a factory worker needs to send money to his or her relatives in a remote village, the affordable option is to send it with bus or taxi drivers through letters and parcels.

Moreover, in LDCs, where basic infrastructure like electricity, roads and telephone lines is sorely lacking, modern technologies like mobile phones have powerful potential to improve the standard of living of the poorest populations. Unlike banks, mobile money services are accessible anytime and from/to anywhere. They remove the need for physical offices for depositing or withdrawing money. Senders and recipients do not have to commute to a money transfer company (such as MoneyGram or Western Union) office, they do not have to fill out forms, and do not have to wait in lines to complete the transaction or to receive money. The entire process is avoided by using a code sent and received via SMS. Mobile transfer makes it easier for internal migrant workers in urban areas to send remittances to their remote rural communities, which may have difficult access to transportation and financial services. Mobile transfers could represent a more secure method of transferring funds than informal remittance channels, avoiding the need to carry cash during long and expensive trips with the risk of the cash getting lost or stolen (Omondi, 2013).

- *Lowering the cost of remittances*

Sending remittances via money transfers companies (MTC), such as Western Union, MoneyGram, Money Express, is widely considered expensive. Globally, sending remittances costs an average of 8.36 percent of the amount sent.

5 Analyzed services: Afghanistan: M'Païsa; Brazil: Bradesco and Caixa; Cambodia: WING Money; Cote d'Ivoire: MTN Mobile Money, Orange Money; India: Eko; Kenya: M'PESA and Zap; Pakistan: easypaïsa; Philippines: GCash and Smart Money; Tanzania: M'PESA, Zap; South Africa: MTN Mobile Money, WIZZIT.

“Africa in particular is one of the most expensive remittance markets in the world. The average fee to send remittances to Africa is 12 percent. What is more, the average fee for intra-Africa remittances is 25 percent. In Nigeria, where most migrants send money home from outside the country, the fee is 10 percent” (World Bank, 2011). For instance, a Nigerian migrant living in another sub-Saharan country who sends money back home would pay USD 20 in fees, when in general migrants send small amounts of money. The high cost of sending remittances through formal channels is partly related to costly currency conversions and strict regulations on cross-border transfers (meant to curb illicit money flows but in practice also prohibiting open markets and competition). Besides, the non-existence of multiple money transfer companies puts the burden of high fees on the customer and pushes those who cannot afford them to use informal remittance channels. By contrast, mobile money services allow unbanked people to transfer different small amounts of money both within and from outside the country at lower costs compared to bank transfers and MTCs.

b. Macro-economic level

Mobile money services have the potential (a) to improve households’ income and thus to facilitate safe savings and human capital investments; (b) to formalize the informal cash economy by facilitating trade; and (c) to be a funding platform of development projects or post-conflict operations in several ACP countries.

- *Improving households’ income and facilitating safe savings and human capital investments*

The reduction of remittances’ costs would increase the frequency and magnitude of remittances and thus affect households’ incomes. This could increase household’s savings since mobile money services provide safe storage mechanisms. Based on the evidence collected in Kenya (GSMA, 2013), it is known that many consumers often use their mobile wallets to save funds at least for short periods of time and are more likely to be able to have the cash needed in case of weather emergencies for instances. Besides, mobile money services would also encourage human capital and physical investments. For instance, through cheaper transfers across distances, households are more likely to send their members to distant locations and to invest in skills that are likely to earn a return.

- *Formalizing the informal cash economy by facilitating trade*

By making it easier for people to pay for, and to receive payment for goods and services, mobile money services give more visibility to money flows as remittances move from informal channels to formal channels. Indeed, the use of mobile money may encourage the formalization of the informal cash economy which, adequately channelled, can in turn have an impact on economic development by making local markets more dynamic (diversification of goods and production) (Afful, 2012). In the long run, mobile money services can facilitate and contribute to improvements in payment of taxes and utilities, which could in turn strengthen governance and infrastructure, and foster international trading through an increased offer of financial services (Scott et al., 2004: 7-8).

- *Facilitating cash transfer programmes for development projects or emergency operations in ACP countries*

Cash transfer programmes for development projects in ACP countries could be funded through mobile money services. Mobile money services can facilitate social transfer payments from governments to citizens for humanitarian uses. These mobile transfers have proliferated in various sectors, such as electricity, agriculture and emergency response. Regarding the agriculture sector, mobile money is a potentially important tool for agriculture development projects since the access to financial services is usually a key constraint to success. Mobile money services can be useful for immediate humanitarian responses. For instance, in Haiti⁶, six months after the earthquake, in June 2010, USAID and the Gates Foundation announced a Challenge Fund Competition to encourage the launch of mobile money services to deliver cash assistance to victims of the country's devastating earthquake. With respect to NGOs, mobile money services can:

- "Reduce operational costs, especially when the same beneficiary group needs to receive recurrent payments.
- Mitigate some of the risks associated with cash transfers, especially security and liquidity management.
- Provide direct contact with beneficiaries through mobile phones, allowing for more communication potentially leading to increased accountability.

6 In Haiti, mobile money systems followed a 'bank-led' model, which consisted of a partnership between a bank and a mobile network operator (MNO). Two MNOs dominate the market, Digicel, which chose to partner with Scotiabank to roll out a mobile money service called Tcho Tcho, and Voilà, which worked with Unibank to launch T-Cash.

- Reduce logistics and improve programme efficiency: in practical terms, instead of sending beneficiaries' names and payment instructions to the finance department or transfer agent, NGOs and international organizations programme managers access an online platform and send the payment notification to the beneficiaries' mobile phones" (HPN, 2012).

Finally, it is worth noting that beneficiaries using mobile money systems do not need to collect their payment in full. Instead, they can keep a residual balance on their mobile wallet and thus better manage their expenditure. Safe storage of money was invaluable for many beneficiaries displaced in camps after the Haitian earthquake. Finally, regarding food security assistance, people in developing countries often prefer cash and vouchers to traditional food assistance, because they offer more choice and variety (World Food Programme, 2012).

c. Macro-economic level

It is worth considering that mobile money services might also imply some challenges, highlighted by several scholars:

- *A complex replication of the Kenyan M-Pesa's success*

The success of M-Pesa took place in a country with a specific population base, economic activity, urban-rural family connections and reasonably extensive bank infrastructure. Safaricom benefited from strong penetration rates, market dominance and the millions to spend. The replication of the M-Pesa model outside of Kenya should take into consideration these specificities and be adapted to local contexts.

- *Need of more reliable and accurate data about the impact of mobile phones on access to financial services and remittances*

While limited information is available and companies involved in mobile money highlight the potential impact of mobile technology on the access to financial services, the impact of mobile money on micro and macroeconomic outcomes remains a field to be further researched. To overcome the difficulties in accessing data and the restrictive rules of non-disclosure and privacy, researchers could partner with mobile phone providers and local institutions (Aker and Mbiti, 2010) (Aker and Mbiti, 2011).

- *Being a “transformative” development tool*

The term “transformative” is understood as a process to make finance and access to markets and services more inclusive. This approach differs from a perspective of limiting mobile money services to a way of extending formal banking, with the involvement of existing banking institutions. Certain entities introduce mobile money services as a way of banking the unbanked through the banks maintaining the predominance and focus on these financial institutions.

However, reality shows that mobile communication operators are more innovative than traditional banks in the field of financial services. Mobile operators are already serving mass markets in these countries, which banks are not: they understand and adjust to the needs of markets better than banks. This “transformative” role of mobile money services will depend in large measure on whether stakeholders (private sector, governments, international organizations, NGOs, etc.) invest in partnerships and approaches that are appropriate for specific contexts. Several questions remain on the limitations and actual extent of the effects of mobile money services on the welfare of their users in developing countries and, undoubtedly, communication technology cannot replace investments in public goods such as education, power supply, roads and water.

5. Impact on human development of ACP countries

a. Facilitating remittance flows to enhance local development

In the past, considerable literature on financial inclusion has linked the economic growth and social development of developing economies to the access to financial services by its rural and poor populations. Banking the unbanked would lead to better decision-making, more efficient markets, and various others development goals. Financial inclusion has been seen as having a multiplier impact on the lives of people drawn into the formal financial system, leading to social inclusion. The logic behind this thinking was that when the poor people get access to financial services, their cash flow management gets better, their financial planning is enhanced and their savings are increased.

Using the same perspective, mobile money services could be considered a development tool due to the specificities presented above, including the wide territorial outreach (even where roads and other infrastructures are not present), the technological advantage, the potential transparency, the reduction of costs and the increase of accessibility. Mobile money services would encourage more migrants to remit money, which would improve households’ income and

thus facilitate safe savings and human capital investments. By increasing the GDP rate per capita thanks to the productivity gains associated with mobile phone communications, mobile money could have the potential to increase incomes (Afful, 2012; Gencer, 2011).

b. Reconfiguring social and communal life

The use of mobile money services is creating new forms of social and communal life (Kusimba et al., 2013). On one hand, sending and receiving mobile money is part of a culture of entrustment (Shipton, 1989): most users in African countries use mobile money as a social and economic tool through which they create relationships by sending funds, airtime gifts and vouchers to family or friends. A wide range of mobile money services includes social gifting, assisting friends and relatives, organizing savings groups, and contributing to ceremonies and rituals. “New forms of social interaction around mobile money recast long-standing traditions of reciprocity and are subject to cultural rules” (Kusimba et al., 2013).

On the other hand, mobile money transfers can have particular impacts on familial bonds and relationships. With the option to send remittances electronically, immediately and affordably, their frequency may increase; yet as the funds do not need to be delivered in person, working persons earning salaries may return less often to their home villages.

c. Empowering rural women by increasing their financial autonomy

Besides the economic aspects of people’s lives, mobile money services may also have a particular impact on social and family structures. For instance, through altering bargaining power, mobile money services may have the unintentional consequence of empowering rural women by increasing their financial autonomy: *“Especially among poorer segments of the population, remittances and transfers received (and sent) via M-Pesa are less visible than those transmitted by other means, such as delivery by a friend or relative [hence] the use of M-Pesa could allow women to thwart the complete control of finances by male family members”* (Morawczynski, 2009). Women could be able to preserve a greater portion of received transfers, which could positively affect the “allocation of household spending” (Jack and Suri, 2010).

d. Improving food security and nutrition through funding development assistance projects

Mobile money has the potential to be a tool for development assistance projects. For instance, the World Food Programme is using innovative ways to deliver food security assistance, such as scratch cards (“e-vouchers”) delivered to mobile phones by text message⁷. Virtual vouchers can be redeemed for food items or “spent” in selected shops. They are used to tackle hunger in places where there is plenty of food in the marketplace but where poor people cannot afford to buy it. Besides, cash and vouchers can sometimes cut down the costs of transporting and storing food. They may also benefit the local economy because beneficiaries spend the money in local markets.

6. Conclusions

This general overview of mobile transfer systems shows that mobile money services take advantage of their ubiquitous, real-time mobile communications networks and bring financial services into rural villages and everyday retail stores, thus alleviating the lack of banking infrastructure and filling a huge niche in developing countries. The rapid adoption of mobile money services can lead to both positive outcomes and unintended consequences, several of them not fully identified yet. Indeed, by making money transfers faster, safer and more convenient as well as lowering the cost of remittances, mobile money services can contribute to local development. They can improve household incomes, savings and human capital investments; formalize the informal cash economy; facilitate cash transfer programmes for development projects or emergency operations. At the same time, mobile money services may reconfigure social and communal life.

Some questions remain on the limitations and actual extent of the effect of mobile money transfer services on the welfare of their users in developing countries. It will therefore be essential to produce more reliable and accurate data about the relevance and impact of mobile remittances on people’s lives in developing countries.

7 <http://www.wfp.org/cash-and-vouchers>.

7. References and further reading

ACP Observatory on Migration

- 2013 *Migration and development within the South: New evidence from African, Caribbean and Pacific countries*, MRS N°46, IOM Migration Research Series, International Organization of Migration (IOM). Available from: http://publications.iom.int/bookstore/free/MRS46_1Oct2013.pdf.

Afful, F.

- 2012 *Africa's mobile banking revolution: the poor now have access to financial services*. Available from: http://mobilemoneyafrica.com/details.php?post_id=34.

Aker, J.C. and Mbiti, I.M.

- 2010 *Mobile phones and economic development in Africa*, CGD Working Paper 211. Washington, D.C.: Center for Global Development. Available from: www.cgdev.org/sites/default/files/1424175_file_Aker_Mobile_wp211_FINAL.pdf.

Aker, J.C., R. Boumnijel, A. McClelland and N. Tierney

- 2011 "Zap it to me: The Impacts of a Mobile Cash Transfer Program", Center for Global Development, Working paper September 2011. Available from: www.cgdev.org/files/1425470_file_Aker_et_al_Zap_It_to_Me_FINAL.pdf.

Allen, K.

- 2013 On the new frontier of mobile and money in the developing world. *Hydra* 2(1) pp 49-59. Available from: <http://journals.ed.ac.uk/hydra/article/view/725>.

Andrew, W.

- 2009 *Mobile Banking in Developing Countries: a case study on Kenya*, Vaasan Ammattikorkeakoulu University of applied sciences. Available from: http://publications.theseus.fi/bitstream/handle/10024/4402/Wambari_Andrew.pdf?sequence=1.

Batista, C. and P.C. Vicente

- 2012 Introducing Mobile Money in Rural Mozambique: Evidence from a Field Experiment, October 2012 – preliminary. Available from: www.novasbe.unl.pt/images/novasbe/files/INOVA_Seminars/nova_sbe_batista_vicente_introducing_mobile_money_rural_mozambique_19oct2012.pdf.

Bruett, T.

- 2011 "The Latest Frontiers for Financial Inclusion: Using Mobile Phones to Reach the Unbanked", UN Capital Development Fund, *Community Development Investment Review*, March 2011. Available from: www.frbsf.org/community-development/files/Bruett1.pdf.

Communications Commission of Kenya

- 2013 *Quarterly Sector Statistics Report Fourth Quarter of the Financial Year 2012/2013*, Communications Commission of Kenya, APRIL-JUNE 2013. Available from: www.cck.go.ke/resc/downloads/Q4_201213_STATISTICS_final_25th_oct_2013.pdf.

Consultative Group To Assist the Poor (CGAP)

- 2008 Global Program Review, Volume 3, Issue 1, Independent Evaluation Group (IEG) The World Bank Group, Whasingtong, 2008. Available from: http://ieg.worldbankgroup.org/Data/reports/gpr_cgap.pdf.

- 2012 "Côte d'Ivoire: A Perfect Time for Mobile Money?", CGAP, 2012. Available from: www.cgap.org/blog/c%3%B4te-d%E2%80%99ivoire-perfect-time-mobile-money.
- Corbett, S.**
2008 Can the Cell phone Help End Global Poverty? *The New York Times* (13 April). Available from: www.nytimes.com/2008/04/13/magazine/13anthropology-t.html?pagewanted=all&r=0.
- Day, P.**
2013 *Jambo tech! (Hello, tech! in Swahili)*. BBC News Business (2 July). Available from: www.bbc.co.uk/news/business-23143574.
- Dermish, A., C. Kneiding, P. Leishman and I. Mas**
2011 Branchless and Mobile Banking Solutions for the Poor: A Survey of the Literature, *Innovations*, Vol. 6, No. 4, Fall 2011. Available form: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1745967.
- Department for International Development (DFID)**
2006 The enabling environment for mobile banking in Africa, Bankable Frontier Associates, David Porteous, Boston.
- Donovan, K.**
2011 "Mobile Money in the Developing World: The Impact of M-PESA on Development, Freedom, and Domination", STIA Thesis, April 2010. Available from: http://blurringborders.com/wp-content/uploads/2011/06/Donovan_MPEsa_Thesis_Prepublication.pdf.
2012 "Mobile Money, More Freedom? The Impact of M-PESA's Network Power on Development as Freedom", University of Cape Town, *International Journal of Communication* 6 (2012). Available from: <http://ijoc.org/index.php/ijoc/article/viewFile/1575/815>.
- Gencer, M.**
2010 The Mobile Money Movement. Catalyst to Jumpstart Emerging Markets. *Innovations*, Winter 2011. Available from: http://mpayconnect.com/wp-content/uploads/2012/10/The_Mobile_Money_Movement_by_mPay_Connect_Dec_2010_-_Innovations_Publication_Winter_2011.pdf.
- GSMA**
2009 *Annual Report 2009. Mobile Money for the Unbanked*. Available from: <http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/04/annualreport200927.pdf>.
2013 *State of the industry 2013. Mobile financial services for the unbanked*, GSMA, 2013.
2014a "The State of Mobile Money Usage – How many people use mobile money globally?" GSMA, 2014. Available from: <http://www.gsma.com/mobilefordevelopment/the-state-of-mobile-money-usage-how-many-people-use-mobile-money-globally>.
2014b *Mobile money in Côte d'Ivoire: A turnaround story*, GSMA, February 2014. Available from: http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/05/MMU_Cote_dIvoire_Turnaround_Story.pdf.
- Humanitarian Exchange Magazine (HPN)**
2012 "Innovation in emergencies: the launch of 'mobile money' in Haiti", Issue 54 May 2012, Accessible online: <http://www.odihpn.org/humanitarian-exchange-magazine/issue-54/innovation-in-emergencies-the-launch-of-mobile-money-in-haiti>.

InterMedia

- 2012 *Mobile Money in Uganda. Use, Barriers and Opportunities*, The Financial Inclusion Tracker Surveys Project, InterMedia, October 2012. Available from: http://audiencescapes.org/sites/default/files/FITS_Uganda_FullReport_LowRes.pdf.
- 2013a *Mobile Money: Use, Barriers and Opportunities*, Summary Report, InterMedia, 2013. Available from: www.intermedia.org/wp-content/uploads/2013/11/FITS_YearEndReport_11-8-134P.pdf.
- 2013b *Mobile Money in Tanzania: Use, Barriers and Opportunities*, The Financial Inclusion Tracker Surveys Project, InterMedia, February 2013. Available from: www.intermedia.org/wp-content/uploads/FITS_Tanzania_FullReport_final.pdf.

International Finance Corporation (IFC), World Bank Group

- 2010 *M-Money Channel Distribution Case – Tanzania. Vodacom Tanzania M-PESA*. Available from: www.ifc.org/wps/wcm/connect/3aa8588049586050a27ab719583b6d16/Tool%2B6.8.%2BCase%2BStudy%2B-%2BM-PESA%252C%2BTanzania.pdf?MOD=AJPERES.

Jack, W. and T. Suri

- 2010 *The Economics of M-PESA*. Cambridge, MA: Massachusetts Institute of Technology. Available from: www.mit.edu/~tavneet/M-PESA.pdf.

Kirui, O.K., J.J. Okello and R.A. Nyikal

- 2012 Impact of mobile phone-based money transfer services in agriculture: evidence from Kenya. Selected Paper prepared for presentation at the *International Association of Agricultural Economists (IAAE) Triennial Conference*, Foz do Iguaçu, Brazil, 18-24 August. Available from: <http://ageconsearch.umn.edu/bitstream/125738/2/Oliver%20Kirui~IAAE~Paper%20presenatation~2012.pdf>.

Kusimba, S., H. Chaggar, E. Gross and G. Kunyu

- 2013 *“Social Networks of Mobile Money in Kenya”*, Institute for Money, Technology & Financial Inclusion, Working Paper 2013-1. Available form: www.imtfti.uci.edu/files/imtfti/kusimba_working_paper_final.pdf.

Makin, P.

- 2009 “Regulatory Issues Around Mobile Banking. New initiatives to bank the poor are straining the world’s financial regulatory systems”. In: OECD, *ICTs for Development Improving Policy Coherence*. OECD Publishing, pp. 139-148. Available from: www.oecd-ilibrary.org/development/icts-for-development_9789264077409-en;jsessionid=1q5xtz7ri2nf3.x-oecd-live-01.

Mas, I.

- 2009 “The economics of branchless banking”, *Innovations*, 4(2), 57-76, MIT Press. Available from: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1552750.

Mas, I. and O. Morawczynski

- 2009 “Designing Mobile Money Services: Lessons from M-PESA”, *Innovations*, 4(2), 77-92, MIT Press. Available from: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1552753.

Ismail, T. and K. Masinge

2011 “Mobile Banking: Innovation for the Poor”, UNU-MERIT, Working paper 2011-074. Available from: www.rrojasdatabank.info/mobilebanking15.pdf.

McGovern, A.

2011 *Dialing for cash: mobile transfers expand banking*. Africa Renewal Online (December), pp. 21-23. Available from: www.un.org/africarenewal/sites/dr7.un.org/africarenewal/files/Africa-Renewal-Dec-2011-en.pdf.

Chaia, A., T. Goland and R. Schiff

2013 Counting the world’s unbanked. *McKinsey’s Quarterly*. Available from: www.mckinsey.com/insights/financial_services/counting_the_worlds_unbanked.

Mehta, BS

2013 “Capabilities, costs, networks and innovations: impact of mobile phones in rural India”, Institute for Human Development, New Delhi, India, April 2013. Available from www.capturingthegains.org/pdf/ctg-wp-2013-29.pdf.

Montez, D.

2010 Mobile Money for the Unbanked: Lessons from Tanzania, *AudienceScapes*, December 2010 Available from: http://audiencescapes.org/sites/default/files/AudienceScapes_Mobile%20Money%20for%20the%20Unbanked_Lessons%20from%20Tanzania_December%202010.pdf.

Morawczynski, O.

2009 “Exploring the usage and impact of “transformational” mobile financial services: the case of M-PESA in Kenya”. *Journal of Eastern African Studies*, 3(3), 509-525.

Morawczynski, O. and M. Pickens

2009 “Poor People Using Mobile Financial Services: Observations on Customer Usage and Impact from M-PESA”. CGAP Brief Online. Available from: www.cgap.org/sites/default/files/CGAP-Brief-Poor-People-Using-Mobile-Financial-Services-Observations-on-Customer-Usage-and-Impact-from-M-PESA-Aug-2009.pdf.

Muliro, A.

2012 *The M-Pesa Experience. Some Reflections from Kenya*. Présentation Transfert d’argent des migrants : réduction des coûts et produits financiers innovants, Paris, 21 February).

Myhr, J. and L. Nordström

2006 “Livelihood changes enabled by mobile phones – the case of Tanzanian fishermen”, Bachelor thesis , Uppsala University. Available from: www.diva-portal.org/smash/get/diva2:131579/FULLTEXT01.pdf.

Olukayode, O.

2013 *Agricultural transformation and rural development through mobile technology (I)*. People’s Daily (29 January). Available from: <http://peoplesdailyng.com/agricultural-transformation-and-rural-development-through-mobile-technology-i/>.

Omondi, G.

2013 *Africa eyes M-Pesa model as mobile phone use goes up*. Business Daily (7 January). Available from: www.theeastafrican.co.ke/business/Africa-eyes-MPesa-model-as-mobile-phone-use-goes-up/-/2560/1660278/-/wfmwiz/-/index.html.

Omwansa, T.

2009 M-PESA: Progress and Prospects. *Innovations Case Discussion: M-PESA / Mobile World Congress*, pp. 107-123. Available from: www.strathmore.edu/pdf/innov-gsma-omwansa.pdf.

Pew Research Center

2013 *Emerging Nations Embrace Internet, Mobile Technolog. Cell Phones Nearly Ubiquitous in Many Countries*, 2013 survey report, Pew Research Center. Available from: www.pewglobal.org/files/2014/02/Pew-Research-Center-Global-Attitudes-Project-Technology-Report-FINAL-February-13-20146.pdf.

Porteous, D.

2006 *The enabling environment for mobile banking in Africa*, Report commissioned by Department for International Development (DFID), Bankable Frontier Associates, Boston. Available from: http://bankablefrontier.com/wp-content/uploads/documents/ee.mobil_banking_report.v3.1.pdf.

Ratha, D. and S. Mohapatra

2007 "Increasing the Macroeconomic Impact of Remittances on Development". Note prepared for the G8 Outreach Event on Remittances, Berlin, November 28-30. Available from: www.law.yale.edu/documents/pdf/Clinics/9_Increasing_the_Macro_Impact_of_Remittances_on_Development.pdf.

Scott, N., S. Batchelor, J. Ridley and B. Jorgensen

2004 *The impact of mobile phones in Africa*, prepared for the Commission for Africa, London, Serneels, P.

Shipton, P.

1989 *Bitter Money: Cultural Economy and Some African Meanings of Forbidden Commodities*. Washington, DC: American Anthropological Association.

The World Bank

2011 *Migration and Remittances Factbook 2011*. Available from: <http://data.worldbank.org/data-catalog/migration-and-remittances>.

Tobbin, P.

2012 "The adoption of "Transformational Mobile Banking" by the Unbanked: An Exploratory Field Study", Ghana Institute of Management and Public Administration (GIMPA). Available from: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2272157.

United Nations Capital Development Fund (UNCDF)

2013 *Database, Mobile Money For The Poor Programme*. 2013.

United States Agency for International Development (USAID)

2012 "Making the case for mobile money. A look at social cash transfers for development", USAID, Field Brief, No. 19, 2012.

Vodafone Group Plc

2007 The Transformational Potential of M-Transactions. *The Policy Paper Series*, 6, July. Available from: www.vodafone.com/content/dam/vodafone/about/public_policy/policy_papers/public_policy_series_6.pdf.

World Bank

- 2014 *Global Financial Development Report: Financial Inclusion*, International Bank for Reconstruction and Development / The World Bank, 2014. Available from : http://siteresources.worldbank.org/EXTGLOBALFINREPORT/Resources/8816096-1361888425203/9062080-1364927957721/GFDR-2014_Complete_Report.pdf.
- 2011 *Migration and Remittances Factbook 2011*. Available from: <http://data.worldbank.org/data-catalog/migration-and-remittances>.

World Food Programme

- 2012 “Cash and Vouchers”, Fact Sheet April 2012, Available from: <http://documents.wfp.org/stellent/groups/public/documents/communications/wfp246176.pdf>.

Mobile transfers technologies are changing the way in way populations relate to financial services in many developing countries. While robust and comprehensive literature on the subject is not yet available, this background note provides a general overview of the trends and opportunities emerging with these new systems.

Based on the example of Kenya and drawing conclusions from other cases, this background notes highlights that mobile money systems can play an important role for development given their adaptation to local contexts and their usefulness for unbanked populations. Mobile technologies are also expected to bring along unexpected social, economical and cultural consequences that will require increased attention in the future.

