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Mobile Phones and Mobile Banking in Ethiopia

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ABSTRACT: This is a brief literature review and synopsis of the recent technological developments in Ethiopia, using cellular telephones and mobile banking.

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Africa's least developed countries, including Ethiopia, lag behind other more developed countries on the continent. Between 1986 and the end of the 1990s, the poorest African states' share of the world's telephones was constant at about 0.8%. After 1998, this share rose sharply because of the introduction of mobile phones, reaching 0.4% in 2002 and it has been estimated this number has increased to 0.6% at the end of 2006. There is no question that the mobile industry accounts for a major portion of the GDP is Sub-Saharan Africa. This is clearly demonstrated in a recent study by the GSM Association, which claimed that the mobile industry is the largest taxpayer in most of the Sub-Saharan countries. One estimate has the mobile telecommunications sector jumping from to 3-5% of GDP in 2004, up from 1-2 % ten years before. [1]

The total tele-density (fixed plus mobile) for thirty-nine countries was 12.3 at the end of 2005. There is great variation between countries, from just 0.8% penetration in Ethiopia to over 50% in Botswana and Gabon. This variation makes it difficult to say anything specific but some general observations can be made. [2]

The top five countries have two things in common: they have small populations and relatively high per capita incomes. There is some evidence that the poorest countries tend to come lower on the list, but there are several exceptions. Neither the number of competing operators in countries in a country nor the presence of one of the large international operators appears to have any relation to the penetration; for example, both Namibia and Ethiopia – at either end of the list- have one single, state-owned mobile operator. [3]

In Ethiopia, the use of mobile telephones was very slow initially. In 1999, the only mobile company was the monopoly ETC that sold mobiles under the name "Ethiomobile". The company initially underestimated the market for mobile services and there were more customers than could be handled. Mobile service only covered the largest metropolitan areas including Addis Abebi, Debre Zeit, Nazareth, Mojo and Sodore for a total coverage of 120 km. The cost of mobile service was relatively affordable compared to other countries too with lower subscription fees and taxes. The Ethiopian government began a gradual privatization of ETC and invited in local and foreign companies to invest in the mobile phone sector in an effort to meet the demand of consumers. [4] In 2005, the industry was still controlled by a government-owned company. There were six mobile phone subscribers per 1000 people compared to nine landline subscribers per 1000. [5]

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[1] Engvall, A. and 0. Hesselmark. 2007. p 13
http://eldis.webcrossing.com/docs/SidaBackbonefinal.pdf
[2] *Ibid.*
[3] *Ibid.*
[4] ITU Ethiopia Case Study. p. 9 http://www.itu.int/osg/spu/casestudies/ETH%20CS1.pdf
[5] WB ICT in Ethiopia snapshot
http://devdata.worldbank.org/ict/eth_ict.pdf

As a whole, Africa was the fastest mobile growth region in the world during 2006 at 39 percent annual growth rate according to Wireless Intelligence. They predict that Africa will maintain this leading position also for 2007, although at a lower growth rate of 28 percent. Networks in Sub-Saharan Africa are still in their initial growth, and large investments in new capacity continue to be made by some one hundred operators. Foreign owners and financiers are behind most operators, which are run on purely commercial principles. Cash from revenues is in many cases financing investments in new capacity, an unusual situation in Africa considering that the operators are just a few years old. The financial weight of the mobile telecom business is amazing, considering that it did not even exist 10 years ago.[6]

According to a survey by the Consultative Group to Assist the Poor (CGAP) late last year on the incidence of cellphone banking in Africa, more than 800 million mobile phones were sold in developing countries in the last three years. With over three billion mobile phone subscribers in the world, Africa is now the world's fastest growing mobile phone market and, according to latest research by telecommunications analyst firm Informa Telecoms & Media, there are now more than 100 million mobile phones in use on the continent — one for every nine Africans. In Africa, the most significant development underpinning this growth has been the degree of regulatory reform in all but a few countries on the continent, reflecting governments' support for developing the sector. This is borne out of the realization that an efficient telecoms structure has a positive impact on growth and potential for generating revenue; and a desire to close the 'digital divide'. Reform has been achieved through liberalizing markets, creating a separate telecommunications regulator, opening the spectrum for new wireless technologies and licensing private operators. [7]

Mobile payments are a small but growing subset of the broader world of electronic payments. While consumers may initiate and authorize e-payments through a number of other electronic channels such as the internet and card-based devices like ATMs, mobile payments are made using a mobile device such as a call phone or PDA. Mobile banking is a subset of e-banking in which customers access a range of banking products like savings accounts and credit instruments, via electronic channels. M banking requires the customer to hold a deposit account to and from which payments or transfers may be made. M banking reduces the transactions costs of payments because there is an electronically accessible store of value.

In most regulatory regimes, creating account-based stores of value is regarded as banking-related business. The question of who may hold the deposit balance turns out to be a crucial issue affecting the development of mobile banking. Technology and the regulation, in turn, affect the effectiveness of m-banking. The issue relevant to many financial systems particularly in developing societies,

[6] Engvall, A. and 0. Hesselmark. 2007. p 14
[7] Ray, M. 2007. Africa's 'cyber' currency.
http://business.iafrica.com/features/649690.htm

soundness, might have concerned many. In other words, M-banking could jeopardize financial stability and prevent economic and financial growth. However, despite the natural conservatism of the banking industry, M banking innovation has proceeded to become a rapidly-growing tool across developing countries. [8]

A major benefit of M banking is drawing in the "unbanked" who generally can't afford the cost of formal banking services and infrastructure. There is the potential to bank people outside the realm of traditional financial services and the mobile phone is a pervasive device that has fewer barriers to entry than most technologies and has penetrated some of the poorest economies due to the overwhelming demand for any form of telecommunications. The evolution of the system necessarily started out as a simple transaction to purchase airtime, strictly to make calls. Very soon, people in rural areas in just about every sub-Saharan African country were purchasing prepaid airtime from local vendors in cities and selling it on to merchants in rural locales, who in turn either rented the use of mobile phones to rural dwellers or sold the airtime on to them at a profit.

On a continent where informal trading is everyone's business, this was somewhat typical. But the technological innovation did not stop there. The rate of airtime exchanging hands based on a relatively few large top-ups seemed an anomaly. Consumers began to use airtime as a sort of virtual currency and airtime had become another means of exchange for goods and services, a 'wallet in your phone' (or second currency) based on the stored value of prepaid vouchers. Soon mortar-and-stone banks, traditionally accustomed to the rarefied trade of the high-end formal market, woke up to the massive opportunity this presented to deploy mobile-banking applications which extend the formal financial service system to the poor — the unbanked — without customers having to incur the onerous administrative fees of ATM machines and point of service cash transactions. [9] With nine successful private banks in Ethiopia and the large state bank, Access, all thriving due to economic growth, [10] M banking will no doubt increase due to competition.

[8] Porteous, D. 2006. The enabling environment for mobile banking in Africa. London: DFID. P. 30 http://www.dfid.gov.uk/pubs/files/enabling-environment.pdf
[9] Ray, M. 2007
[10] Economist Intelligence Unit Country Report 2007 "Ethiopia" p. 22

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