## How Do Poor People Save? Microeconomic Foundations and Empirical Evidence of Mobile Phone Savings

**Master Thesis** 

in

Banking & Finance

at the

Swiss Banking Institute of the University of Zurich

Thesis supervisor: Prof. Dr. U. Birchler

Author: MICHELE GIAMPÀ

Handed in on: September 18<sup>th</sup>, 2013

## **Executive Summary**

Financial inclusion is one of the main topics in the context of microfinance. In particular, while up until a few years ago the focus was completely on credits, today the question on how to provide accessible saving services for all, including the poor, has gained importance. This is also because the old paradigm arguing that the poor are "too poor to save" to offer them appropriate saving opportunities has been superseded by a different reality: they save and make use of a diversified mix of instruments to do so. Unfortunately, the used instruments are generally provided by the informal sector, which, as an alternative to the formal one, can be viewed as a second best option.

On this premise the second part of this thesis focuses on the ability of both the formal and informal sector to fulfil the poor's saving preferences. In this context the limitations of both are presented, as well as the barriers that impede access to formal savings. In addition the circle is closed with an assessment of the demand, which aims to understand whether the poor with no formal account (unbanked) would demand on once barriers of access are removed. The results of this second part are clear: affordable, trustworthy, situated near the user (proximity), safe and with the ideal degree of liquidity. These are the main characteristics that a saving service has to offer in order to be attractive for the poor. Unfortunately, as shown in this thesis, neither formal nor informal mechanisms provide all these factors on a significant scale. On the one hand the former presents limitations in terms of proximity and affordability but offers a large spectrum of services, as well as regulated and supervised deposits. On the other hand the latter is based on concepts such as trust and social relationships in the group and offers a disciplined way of saving but is often too inflexible and lacks privacy. Not surprisingly, the limitations of the formal sector also reflect the barriers that prevent the poor from accessing formal deposits. In fact, according to the study "Measuring Financial Inclusion" of Demirgue-Kunt and Klapper (2012), the main self-reported barriers towards the use of formal accounts, listed in order of decreasing importance, are: "Not enough money" and "Too expensive" (affordability), "Family member already has account", "Too far away" (proximity), "Lack of necessary documentation", "Lack of trust" (trustworthiness) and "Religious reasons". Finally, the assessment of the demand for formal savings, which is based on both the extent of the informal options among the poor and several studies and experiments, presents interesting results. In developing countries the usage of informal options is extended and in general it by far exceeds the formal sector. In addition, demand studies clearly evidence that once barriers are cancelled and the poor can formally obtain what they desire, demand for formal deposits increases and in some cases so does the savings rate.

The third part of this work, based on the analysis of the second part, focuses on mobile banking as a saving mechanism and aims to understand whether and how this technology is able to overcome the limitations of both the formal and the informal sector and to destroy barriers of access to formal deposits. In other words, the goal is to understand whether mobile banking is able to provide a contribution towards financial inclusion. To do this, characteristics such as proximity, affordability, safety and liquidity are studied in the context of mobile banking to show how this technology is able to deal with the poor's preferences from a savings perspective.

From a first analysis of the regulatory environment that surrounds mobile banking, it turns out that this new technology has no greater risks than formal banks. This is due to the fact that, contrary to what formal institutions do, mobile banking providers are required to comply with certain rules: they have to hold 100% of the deposited funds in one (and in some jurisdictions more than one) regulated and supervised bank, which implies that they cannot intermediate money, and have to isolate customer funds in order to avoid institutional risks (e.g. in the event of bankruptcy). However, despite this system guaranteeing safety, non-banks are not allowed to pay interest and to promote their service as a savings account. The fact that the regulator only recognizes it as payment system and treats the cash-in (in the e-wallet) merely as an operation that has to be done before the money is transferred to the recipient, underlines that mobile money may still have to obtain full trust from the regulation authorities. The second analysis considers the affordability of branchless banking and, more specifically, of medium-term savings and short-term safekeeping. It turns out that the former is 50% cheaper than formal banks and the latter 43% more expensive. By bearing in mind that transportation and opportunity costs were neglected, the fact that many people still use the service to store money signals that factors other than the price (such as safety, proximity, trust and liquidity) overcompensate this disadvantage. Finally, the strategic roles of agents are studied. The term "strategic" is not fortuitous at all. In fact, it is thanks to the wide territorial coverage of said agents that mobile banking is able to achieve proximity, affordability, trust, liquidity and privacy. Agents are present where the poor live and consequently reduce costs of delivering financial services, help clients to build confidence and trust, perform the liquidity management process, which makes money accessible for users' needs at all times (which on the other hand could be negative for those suffering from impatience issues) and represent a solution against requests of money from friends and relatives, since the deposited amounts are kept secret.

In this third part it is shown that the success of mobile money is justified by the great ability to obviate the shortcomings of both the formal and informal sector and to destroy the barriers that impede the poor to save. However, until regulators do not accept it as a saving service, but consider it instead a mere transfer option, partnerships with the formal and informal sector are needed. Only in this way this new technology will represent the means to offer what in part two was called a "better saving option": an option that provides the proximity and affordability of informal instruments combined with the safety and the right mix of liquidity offered by the formal sector. It is only in this manner that the ultimate purpose of financial inclusion can be achieved.

This thesis starts with the presentation of the main household savings literature, represented by the prominent works of Keynes (1936), Duesenberry (1949), Friedman (1957) and Ando and Modigliani (1963), and aims to understand the validity of these theories when applied to developing countries. To do this, the author relies on some economic papers in this field. The analysis shows that different patterns and results are obtained within the same country and for this reason it is difficult to generalize a final statement about the validity of these models. Nevertheless, this part establishes that the quality of data used, the way in which the different authors choose to approximate unknown variables (e.g. the permanent income) and the possible intercorrelations between variables (e.g. with education) play an important role in the estimation of the models and can affect the final interpretation of the results.