Evaluation of Mobile Money Uptake – FSDMoç

Executive Summary

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Background information

The Financial Sector Deepening, Moçambique (FSDMoç) is a six-year programme funded by the UK International Development Agency (DFID) and Swedish International Development Cooperation Agency (SIDA) whose mission is to identify and partner with key market stakeholders, offering targeted investments and insights to promote the financial sector to improve financial inclusion. FSDMoç partnered with M-Pesa Mozambique (2016 to 2018) to increase the uptake of the mobile money in the country and to reinforce M-Pesa's on-going *Pedro* strategy to increase the number of current M-Pesa customers (users) and to accelerate uptake by 1 million more users via the use of promoters. FSDMoç commissioned an end-term evaluation to gauge the results achieved during the two-year partnership to:

- Improve understanding on the use of mobile money.
- Provide conclusions on opportunities and challenges in the mobile market system of Mozambique.
- Provide details on the efficiency, effectiveness and sustainability of M-Pesa interventions in Mozambique.

Methodology

Research design & sampling for the survey

A mixed research approach employing both qualitative and quantitative methods was used. Four provinces were sampled for the study (Maputo city, Gaza, Manica and Nampula) and multi-stage sampling was used to select provinces, districts and communities. The recruitment of households was undertaken randomly using a zigzag pattern and the first adult (18 years or above) who answered the door was eligible to participate in the survey. Respondents were either M-Pesa users[1] or non-users[2].

Sampling for the qualitative research

Focus group discussions (FGDs) with M-Pesa users and Key Informant Interview (KIIs) with M-Pesa staff, FSDMoç staff, promoters and agents, were undertaken to inform the qualitative part of the study.

Methodological limitations

- Selection bias, especially during the first stage, which was skewed toward provinces and districts where the *Pedro* strategy was being implemented. Generalizability to the whole population is therefore not applicable. Nevertheless, randomization was applied in all the selection stages even at the household level.
- Interviewer bias especially during interviews where it is possible to induce the participant to provide the perceived "right" answers by the enumerator. Undertaking a pilot and a lot of exercises and simulation mitigated this.
- The zigzag selection of households could induce the exclusion of hard to reach households.

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[1] M-Pesa users in this study are defined as those adults 18 or above that uses M-Pesa, either his own registered M-Pesa account or someone else's M-Pesa account

[2] A non-user & M-Pesa users in this study are defined as those adults 18 or above who does not use an M-Pesa account.

Findings

Demographic characteristics

- M-Pesa users have an average age of 32.9 years and non-users an average of 36.3 years.
- M-Pesa users are more literate (94%) compared to non-users (78%). In addition, more (67%) of the M-Pesa users were more likely to have attained secondary education (67%) compared to non-users (41%). There is a positive correlation between education level and the number of new accounts opened by promoters, indicating that the higher the level of education, the more likely a person will open a mobile account.
- M-Pesa users have a higher average income than non-users.
- Non-users are more likely to be unemployed (31%) compared to M-Pesa users (18%).
- M-Pesa users are more likely to use other formal financial services like banks, microfinance and insurance corroborated by the existence of a strong positive correlation between average household income per capita and usage of other financial services.

Objective 1: Improving understanding of the usage of mobile money

- Though the adoption of mobile money is not as high as in Kenya and Tanzania, the tendency in Mozambique is moving towards Kenya's reality where there is a dominance of one mobile money provider: M-Pesa.
- Households with M-Pesa users have much more income than households of non-users. This suggests that those that have more money have more exposure and/or are more likely to sign-up to M-Pesa services and that targeted M-Pesa rollout interventions are needed to improve financial inclusion of the poorest and hardest to reach.
- The M-Pesa penetration rate in urban areas is more than 50% (in Maputo city it is more than 70%) while in the rural areas where the *Pedro* strategy has been rolled out there is a penetration rate of 30% or higher.
- The presence of promoters especially in the provinces in which the *Pedro* strategy is being rolled out has contributed to the mobile money uptake. The presence of promoters in a community in conjunction with age and a well-established agent network can (statistically significantly) contribute to the increase in mobile money uptake.

Despite the above highlighted successes, concerns for the mobile money sector, especially M-Pesa include: fraud, inefficient customer care line that does not respond to users' concerns on a timely manner and perceived high tarrif rates by the users mainly because of their low purchasing power.

Objective 2: Conclusions of opportunities and challenges in the mobile market system
Opportunities

- There is potential for increase of market share in the mobile money market because of the existence of people who are not financially included. According to the survey results, 55% of the respondents reported to have a mobile money account. There was evidence of high demand of M-Pesa mobile services even in areas where the Vodacom network was poor or non-existent, like for example in

Corrane (Nampula province), Mavonde and Nhaurombe (Manica province) there were people who had M-Pesa accounts. To use these accounts, they travel to the nearest cities where Vodacom network accessibility is good and agents guaranteed to transact their M-Pesa accounts exist.

- The Government of Mozambique is enthusiastic to improve the financial inclusion rate in the country hence in 2016 the government approved the financial inclusion strategy (2016-2022). One of the main pillars of the strategy is to improve access to financial services. This is an opportunity for the mobile money sector to capitalize on the opening (especially on access to financial services) created by the strategy. According to KIIs (M-Pesa & FSDMoç), the existing legislation in Mozambique is not a hindrance to the expansion of the mobile money services.

- Unemployment rate is still high in Mozambique (25% according to Trading economics[3]), the expansion of mobile money services in the country is an opportunity for job creation. Most of the promoters and agents who participated in the interviews, cited unemployment as one of the main reasons why they are working with M-Pesa. There is willingness of people especially young people to work with mobile money providers to improve their livelihood.

- There is high demand for savings accounts that generate interests, services that facilitate transactions across mobile money operators and loans for agents so that they are able to manage their e-float.

Challenges

- Underdeveloped mobile network infrastructure that slows the progress of mobile money uptake. Due to national regulations, Vodacom and M-Pesa are different legal entities, nevertheless, M-Pesa's mobile money operations depends fully on the network of Vodacom. M-Pesa being the dominant mobile money service provider in Mozambique and the main M-Pesa shareholder limits the permeation of the M-Pesa services in areas where the network coverage of other mobile money providers such as Movitel is strong.

- Low purchasing power of users increases the duration that the firm can expect to reach break-even point. This is because of the low volume of revenue creating transactions translates into a long period of waiting for return on investments. In the M-Pesa's case, an estimated 10.3 months in urban areas are needed to earn enough revenue from the newly signed up clients to compensate the monthly cost of one promoter. In rural areas, the time to generate enough revenue to cover the monthly cost of the promotor is double the time of the urban areas.

- Fraud continues to be an issue in the mobile money industry where innocent people can be robbed through identity theft, hacking or some other means.

- Low literacy rate of users especially in the rural areas affects their understanding of the importance of the use of financial products. Many (41%) non-users keep money at home for saving purposes.

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[3] https://tradingeconomics.com/mozambique/unemployment-rate

Objective 3: Details on the efficiency, effectiveness and sustainability of M-Pesa interventions in Mozambique.

Efficiency: The following outputs were achieved through the partneship :

- Achievement of set targets within the stipulated timeframe. Additional 1,200,000 M-Pesa users within the 2-year period of the partnerships.
- Development of a promoters' model (one of its kind in Africa) to act as a catalyst in the process of increasing the uptake of mobile money in Mozambique.

Effectiveness: The partnership reinforced M-Pesa's penetration rate, which the research estimates to be above 50% in many of the urban areas where the *Pedro* strategy was rolled out.

Sustainability: It is likely to take longer for M-Pesa to break even from investments in rural areas as opposed to investing the promoters' model in the urban areas. There is less incentive for investing in the rural areas for M-Pesa in the short-run as a profit-making organization due to delays of the return on investments. Subsidies through donor funding could be one of the options available to propagate financial inclusion of mobile money especially in the rural areas.

Conclusions

It is therefore rational to conclude from the findings that:

- M-Pesa users are younger, more urban, better educated and wealthier in relation to the non-users who are likely to have less education, more likely to be unemployed and have lower average household incomes.
- Mozambique's mobile money market is similar to Kenya's in that there is one mobile money operator dominating. Hence, M-Pesa Mozambique could benchmark and consolidate its position through applying the lessons learned from Kenya.
- The promoter model through the partnership improved the uptake of mobile money in the country especially in the urban areas.
- There is a huge potential for mobile money providers especially reinforced by the characteristics of non-users who favour keeping money at home.
- Challenges in the mobile money industry include fraud, low literacy levels, underdeveloped mobile network infrastructures, reduced purchasing power of both users and agents, which affect their capability to spend.
- The time it takes to break-even especially in rural areas due to reduced purchasing power can be a disincentive for M-Pesa to continue investing in the rural areas hence subsidies through donor funding could be one of the options to boost financial inclusion especially in the rural areas.

Recommendations

FSDMoç/Donor

With investment undertaken during the past two years, the results are positive with particularly strong uptake in urban areas, which is positive as some people in the urban areas are also financially excluded. There is more work to be done to promote financial inclusion in Mozambique especially in the rural areas, although M-Pesa uptake has also increased in these areas.

There is no need to keep subsiding the promoter model as it is, however, if additional investment from FSDMoç into mobile money services is made to further increase the formal financial inclusion. This could be focused on:

- Promoting M-Pesa services that are targeting new (rural) areas to reach people that are financially informally included and excluded. This requires a cohesive promoter monitoring and incentive scheme.

- Emphasis on customer education (both existing and new clients) could be achieved through transforming promoters to "educators". This however, requires a solid incentive model for promoters for it to work.

- Collaborating with other NGOs, local entities to boost the financial ecosystem in order to grow/encourage/invest in economic activities in identified potential new areas/villages suitable for introducing M-Pesa.

M-Pesa

Growing M-Pesa, requires stimulating the current mobile money users to transact more, in terms of volume of the transactions, in amounts per transaction, as well as converting the non-users into mobile money users, especially in the rural areas. However, this also requires taking into account:

- Motivating/incentivizing promoters to explore the "hard to reach people/areas", which needs a proper monitoring and incentivising mechanism.

- There is a demand for new M-Pesa services to be introduced to end-users: especially savings with interest (also to saving groups) and loans/micro credits.

- Current M-Pesa support structure is under-staffed. Additional organizational support needs to be improved by increasing M-Pesa staff.

- The joint (Vodacom/M-Pesa) customer service line cannot cope with the rapid growth of the number of new clients and needs to be adequately resourced as well. Investing resources and efforts to continuously build customer satisfaction and trust in the M-Pesa organisation and services is crucial.

- Back-end systems should be reliable to deal with the increased number of customers and foreseen transactions that can also deal with increased growth, so that there is no delay or loss of transaction notifications.

- Currently, there seems to be limited usage of data analytics on M-Pesa usage/enrolment. M-Pesa can gain new insights analysing their data to make better decisions on how to gain more new customers and ultimately generate more revenues from M-Pesa transactions.

- Building and retaining customer satisfaction and trust in the M-Pesa organisation and services is crucial to grow the usage of M-Pesa. Address the fraud issue to enhance consumer protection and to regain trust. Victims of fraud need cases to be adequately addressed.

Mozambican regulators

- Develop/upgrade regulations to allow mobile money service providers (M-Pesa, M-Kesh, E-mola) to offer financial services a) micro credits /micro loans, b) savings with interest, c) cross-mobile money service providers' transactions, and d) cross-border transactions. This could be either directly or via collaboration with other entities that already that have (obtained) licenses for these financial services (such as micros credit and savings with interests).
- Stimulate the local regulation to enable the local Mobile Network Operators (MNOs) to use each other's infrastructures. So that for example M-Pesa can be used in rural locations where Movitel network is well developed as opposed to Vodacom.
- Provide guidelines to MNOs on minimizing fraud and monitor the adherence.
- Increase the transaction daily, monthly and yearly transaction limits to stimulate mobile uptake.