Association for Information Systems

AIS Electronic Library (AISeL)

CONF-IRM 2020 Proceedings

International Conference on Information Resources Management (CONF-IRM)

5-2020

Mobile Money and Financial Inclusion for the Unbanked – A Choice Analysis

Batloung Hlabeli University of Cape Town, hlbbat001@myuct.ac.za

Pitso Tsibolane University of Cape Town, pitso.tsibolane@uct.ac.za

Malcolm Garbutt University of Cape Town, grbmal002@myuct.ac.za

Follow this and additional works at: https://aisel.aisnet.org/confirm2020

Recommended Citation

Hlabeli, Batloung; Tsibolane, Pitso; and Garbutt, Malcolm, "Mobile Money and Financial Inclusion for the Unbanked – A Choice Analysis" (2020). *CONF-IRM 2020 Proceedings*. 9. https://aisel.aisnet.org/confirm2020/9

This material is brought to you by the International Conference on Information Resources Management (CONF-IRM) at AIS Electronic Library (AISeL). It has been accepted for inclusion in CONF-IRM 2020 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

Mobile Money and Financial Inclusion for the Unbanked - A Choice Analysis

Batloung Hlabeli University of Cape Town hlbbat001@myuct.ac.za Pitso Tsibolane University of Cape Town pitso.tsibolane@uct.ac.za

Malcolm Garbutt University of Cape Town grbmal002@myuct.ac.za

Abstract

This study explored the impact of mobile money on financial inclusion and development from Kleine's Choice perspective in the lives of entrepreneurs of a least developed country (LDC). A thematic analysis of data gathered from in-depth semi-structured interviews of twenty-three micro and small enterprise entrepreneurs based in Lesotho's capital city Maseru suggested a variety of primary outcomes that result when the entrepreneurs exercise their choice to use mobile money technology. These include achieving a higher quality of life through increased revenue and profits due to the transactional convenience, financial management capabilities and improved access to banking services (financial inclusion) provided by the mobile money technology. For the entrepreneurs to achieve these primary outcomes, a choice must exist and be accompanied by an awareness of the available choices that can be made. Furthermore, the entrepreneurs must possess the agency to make a choice and actively make a choice before an outcome can be achieved. Mobile money is not without limitations such as withdrawal limits, network failures and safety issues which limit the entrepreneurs' agency to exercise choice. This study proposes a practical model based on Kleine's Choice Framework for assessing development that is based on a rich and contextualised understanding of choice, agency and structure.

Keywords: Mobile Money, MPESA, Choice Framework, ICT4D, Financial Inclusion.

Mobile Money and Financial Inclusion for the Unbanked - A Choice Analysis

1. Introduction

Mobile money has been promoted to assist the estimated 30% of the world's population denied financial inclusion through banking the unbanked (Finmark, 2018; Hughes & Lonie, 2007; Schwittay, 2011). Over the past decade, mobile money has delivered exceptional benefits to the micro and small enterprise (MSE) sector in developing countries (Adaba, Ayoung & Abbott, 2019). In Lesotho, many people are not only unbanked but also lack financial access (FinMark, 2016). Simultaneously, Lesotho suffers from unemployment issues in a vicious cycle of unemployment, further increasing unemployment (Damane & Sekantsi, 2018). Each unemployment shock can result in increased unemployment for eight years after such an event (Damane & Sekantsi, 2018). Productivity shocks can increase unemployment for the following three years, which led to Damane and Sekantsi (2018) recommending government intervention in increasing both productivity and employment. Sekantsi and Motelle (2016) recommend developing closer relationships between mobile money operators and commercial banks which could lead to greater access to banking services and an expansion of financial inclusion.

The underlying assumption of these authors is that mobile money provides developmental outcomes for MSE entrepreneurs through financial inclusion and overall improvement of their financial wellbeing. However, before government and commercial intervention is undertaken, it is advisable to consider if the citizens want and would make use of the proposed interventions. This has led authors such as Dube, Chitakunye and Chummun (2014) to conclude that there is a need to understand customer choices for financial inclusion better and that governments be sensitive to consumer choices.

Sekantsi and Motelle (2016) recommend the use of mobile money supported by education and improved network infrastructure in rural areas. They also recommend that Lesotho use Chinese businesses for the diffusion of mobile money due to their existing reach into rural communities. Nevertheless, both Damane and Sekantsi (2018) as well as Sekantsi and Motelle (2016) take a collective view which discounts the views of individual entrepreneurs.

Mobile money falls in the ambit of information and communications technology (ICT) which is promoted as a solution to assist in improving both individual and collective lives in developing economies. When used for developmental purpose, ICT is commonly referred to as ICT4D which seeks to better understand two challenges: the provision of access to ICT that people wish to use; and the implementation of technologies that improve value in their individual and collective lives of the citizens (Kleine, Light & Montero, 2012).

Drawing on a study amongst MSE entrepreneurs in Maseru, Lesotho, we use dimensions of choice from the Choice Framework (Kleine, 2010) to assess the awareness and use of mobile money in an emerging economy. ICT4D, financial inclusion and development are complex issues, and we need to acknowledge both for- and against points of view. Through an exploration of the connections between mobile money and well-being, this study aims to contribute empirical evidence and insights to the under-explored role of choice in the broadening of individual developmental outcomes through mobile money use.

The paper progresses as follows. In the next section, a background to financial inclusion and mobile money is provided. Mobile money is contextualised in the developing economy of Lesotho, and the Choice Framework is described as a theoretical framework for the research. The third section describes the research approach, which provided the findings in section four. The paper ends with a discussion and conclusion in section five.

2. Related Work

The relationship of mobile money in providing financial inclusion is described in the following sections and related to the context of Lesotho. An overview of MSE entrepreneurs in Lesotho is provided, followed by the dimensions of choice and developmental outcomes from the Choice Framework as a theoretical framework for our research.

2.1 Financial Inclusion

Mobile money has led to financial inclusion with substantive economic benefits in developing countries (Suri & Jack, 2016). Financial inclusion is the availability, accessibility and affordability of financial services and products for all people (FinMark, 2016). The FinMark view is more comprehensive than the naive definition of "banked" versus "unbanked" which erroneously assumes that the mere provision of a banking account will meet individual needs. Financial inclusion is multi-dimensional with access to financial services as one dimension to which FinMark (2016) add usage and quality.

Access - Access must be both available and appropriate to the community. Without access, financial products and services are not able to provide financial inclusion.

Usage - Usage of financial products and services serves as a proxy to determine access and uptake of the products or services.

Quality - Quality of financial products and services has a direct influence on usage but is challenging to measure. Poor quality will reduce usage over time. FinMark (2016) recommends four ways of understanding quality: product fit; value-add: convenience; and risk.

The financial products must be appropriate and tailored to the needs of clients while adding value to their financial situation. The products must be accessible and user-friendly and not increase the financial risk of the client. Consequently, Schwittay (2011) proposes a more complicated system of global financial inclusion assemblages which combines people, equipment and organisations from various nationalities.

Moreover, existing clients want the ability to move money over time – using instruments like savings, insurance, and access to credit (Donovan, 2012). Thus, in addition to purely banking products, financial products and services must incorporate micro-finance services, including loans products, savings mechanisms, and insurance policies. These requirements render financial inclusion, both a development problem and a market opportunity (Schwittay, 2011). Financial inclusion rests on the materialistic assumption that financially poor people desire financial inclusion. The potential that this is not the case threatens the foundation of the financial inclusion assemblage (Schwittay, 2011). Nevertheless, the complexity of the financial inclusion assemblage is challenging to research in the context of financially excluded individuals. Fortunately, the increasing access and usage of mobile money, which has been seen to have a positive bearing on financial inclusion (Dube, Chitakunye & Chummun, 2014) provided a proxy for research purposes.

2.2 Mobile Money

Mobile money uses mobile wallet apps on mobile phones to provide unbanked people to ability to pay for goods and services from merchants using mobile phones (Ntale & Bosire, 2018). Mobile money replaces physical cash when paying for goods and services or when receiving payments from customers (Kemal, 2016) and provides convenience for other micro banking services such as payment of bills, money transfers and savings (Gichuki & Mulu-Mutuku, 2018). Mobile money originated in Africa in Kenya through M-Pesa by Safaricom in 2007 (Ezeh & Nwankwo, 2018). M-Pesa has been accompanied by numerous benefits, including the emergence of a mobile banking ecosystem which has provided socio-technical transformation (Lepoutre & Oguntoye, 2018). Research indicates that the presence of M-Pesa has benefited both rural and urban communities because it is regarded as a safe way to transfer and save monies. The attraction of mobile money is the ability to increase productivity, reduce transaction costs, and create employment opportunities and growth for businesses (Donovan, 2012).

Mobile money attracts investment and spurs revenue growth; supports the sustainability of businesses; formalises the informal sector; enables efficiencies through digitisation, and reduces frictions associated with cash usage (Gencer, 2011). The mobile money technology is considered to be transformational (Donovan, 2012), bringing about a positive impact on financial wellbeing (Gencer, 2011). Mobile money serves to improve business efficiencies as traders make payments to suppliers (Ng'weno & Ignacio, 2010; Plyler et al., 2010) through a secure means of transferring money between the unbanked and the banked (Ntale & Bosire, 2018).

Mobile money can reduce transport costs, improve manageable cash flow and reduce customers' credit exposure while saving time, such as by avoiding long queues at banks (Perekwa, Prinsloo & Venter, 2016). Supporting shortened supply chains and delivery times, mobile money can improve an enterprise's growth (Perekwa et al., 2016) which is associated with the creation of employment opportunities (Gencer, 2011) resulting in economic development (Kushnir, 2010). The ease of use of mobile money has resulted in mobile money technology being adopted by small firms to conduct their business transactions (Mbiti & Weil, 2011).

Although the literature on mobile money in Lesotho discusses the context of agency, financial exclusion and inclusion, it takes a collectivist stance (Sekantsi & Lechesa, 2018; Sekantsi & Motelle, 2016; FinMark, 2016; Jefferis & Manje, 2014; Tsemane 2015) and neglects the individualistic contexts. Moreover, extant literature does not theoretically stress mobile money phenomena from an ICT4D perspective. Thus, the gap in ICT4D and mobile money literature in Lesotho calls for more research.

2.3 Mobile Payments in Lesotho

As of 2014 subscribers to Lesotho mobile money providers, M-Pesa and EcoCash, numbered more than the registered bank account holders (Anderson & Reynolds, 2015) with Lesotho receiving 29% of GDP through M-Pesa. Six months after the inception of M-Pesa in Lesotho, the adoption and use of mobile money rose to 62% of all money savings and transfers (Central Bank of Lesotho, 2013). During the 2018-2019 financial year, M-Pesa revenues grew by 32.2% and accounted for USD2,8 billion in transactions from 13,5 million customers across all of Africa (Vodacom, 2019).

M-Pesa services are accessible across the entire country through retail shops who act as M-Pesa agents. Both withdrawals and fund deposits can be processed at M-Pesa agents. Services associated with M-Pesa include sending and receiving money across mobile networks; paying electricity and water bills; buying goods and services from shops where mobile money is allowed as a mode of payment; paying for television subscriptions; paying monthly insurance premiums; and transferring airtime to M-Pesa (Tsemane, 2015).

2.4 Micro and Small Enterprises (MSEs) in Lesotho

MSEs in Lesotho employ less than nine employees and generate annual turnover less than the equivalent of USD65 000 (Mokoatleng, 2014). MSEs have begun to be recognised by the Government of Lesotho for their contribution to job creation, poverty alleviation and economic development (Maliehe, 2018; Workman, 2019). However, MSEs face challenges that hinder their operation in the business ecosystem, including lack of funding, lack of business skills, lack of ICT expertise, and limited business connections (Renny, 2011). Mokoatleng (2014) observed that due to the lack of access to banking services and financial assistance, the growth of the MSE sector in Lesotho is negatively impacted, resulting in further unemployment and poverty.

Business funding is predominantly from personal funds with few entrepreneurs acquiring funding from financial institutions (Khoase, 2015; Mokoatleng, 2014; Siringi, 2011). Frequently cited reasons for lack of funding by financial institutions are a lack of collateral, lack of a business plan, lack of information required by financial institutions, lack of financial literacy, and high-interest rates for loans (Mokoatleng, 2014; Mazanai & Fatoki, 2012). Mots'oene (2014) pointed out that financial institutions do not provide financial credit to people from disadvantaged economies as they are not considered financially viable. Mobile money platforms which provide accounting services such as financial history over a specific period may deliver an affordable, accessible and acceptable solution for the financial institution (Mramba et al., 2017).

Donovan (2012) recognised a need for time-based movement of money in the form of savings, insurance and loans. However, Dube, Chitakunye and Chummun (2014) observed that savings and loan facilities were not popular despite mobile money service having a positive bearing on financial inclusion. This led Dube, Chitakunye and Chummun (2014) to conclude that there is a need to understand customer choices for financial inclusion better. They support this with a further conclusion that the impact of financial inclusion initiatives could be increased if, amongst regulatory and infrastructure concerns, governments were sensitive to consumer choices.

2.5 Choice Framework

The Choice Framework (Kleine, 2010) is a theoretical framework built on Sen's Capabilities Approach to asses the contribution of ICT to development. Sen's Capabilities Approach posits that development is a process of expanding the real freedom that people enjoy that leads to the lives they desire (Sen, 1999). The objective of the Capabilities Approach is to measure an individual's economic well-being in terms of capabilities and functionings (Kuklys & Robeyns, 2005). Sen (1999) explains that development is the freedom to make choices from personal, social, economic, and political perspectives.

In Sen's broader scope, economic well-being is the leading indicator of development. Sen stresses the significance of social, cultural and political dimensions of development. Thus, the Capabilities Approach is a paradigm that provides crucial information about a person's well-

being and social engagement (Yousefzadeh et al., 2019). However, Robeyns (2003) argued that the Capabilities Approach does not adequately explain or describe the social structures and how individuals use ICTs to make choices. While ICT4D authors have used the Capabilities Approach to understand the impact of mobile money on development (Adaba, Young & Abbott, 2019; Donovan, 2012), our study employs the Kleine Choice Framework (2010), as shown in Figure 1. The Choice Framework places the focus on choice, including the choice of an ICT such as mobile money, as the principal developmental outcome that determines all subsequent development outcomes.

The Choice Framework uses qualitative research methods to gain in-depth information about an individual's choices based on the life they desire (Kleine, 2010). The Choice Framework is geared to ICT4D studies but is equally applicable to other development areas (Kleine, 2010). To maintain the holistic and systemic richness of the Choice Framework, it must be operationalised appropriately, for which Kleine (2010) recommends working systematically backwards from development outcomes through dimensions of choice (degrees of empowerment) to agency and structure.

Development outcomes require the capability to make decisions and are influenced by a person's choice of what they value as part of their life (Kleine, 2010). There are two parts to development outcomes, namely primary outcomes and secondary outcomes. The current study is limited to the primary outcome, which according to Kleine (2010) is the individual's choice. As depicted in Figure 1, Dimensions of Choice result from combinations of agency and structure (Kleine, 2010). Dimensions of Choice are attained when an individual utilises ICT to enhance their lives. Choice comprises two subcategories: Dimension of Sense of Choice, which comprises the existence and sense of choice; and Dimension of Use of Choice relates to an individual's awareness of a choice while the use of choice is the operationalisation of the identified choice.

Freedom to make a choice may be considered in a given social context relative to a person's resources (Kleine, 2010). Resources refer to material resources, financial resources, natural resources, geographical resources, psychological resources, cultural resources, social resources, education and skills resources, health resources, as well as information as a resource (Kleine, 2010). Structure in the Choice Framework includes formal and informal laws, regulatory policies, norms and customs that frame the empowerment process (Kleine, 2010). However, we restrict the current study to the primary outcome of choice and the relevant dimensions of choice.

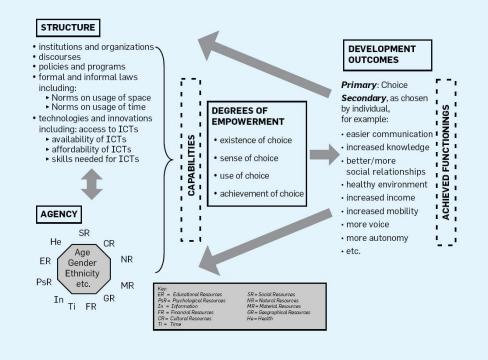


Figure 1. Illustration of Choice Framework (Kleine et al., 2012)

2.6 Research Aim and Research Questions

To meet the objective of this study of assessing the use of choice in using mobile money towards the outcome of financial inclusion, we posed the following questions: What mobile money usage choices do MSE entrepreneurs make? And, What dimensions of choice – existence, sense, use and achievement – do MSE entrepreneurs engage in when making mobile money choices?

3 Research Approach

Guided by the Choice Framework (Kleine, 2010), the current study made use of qualitative semi-structured interviews. Interviews were considered an appropriate approach to collect data and provided the ability to engage socially with the respondents who were identified through a purposive-snowballing technique. This sampling method provided referrals from interviewees. The study targeted MSE entrepreneurs from multiple trading industries – food, clothing, health, ICT, hairdressing and saloons. All the interviews were conducted in Maseru, where it was convenient to obtain a sample due to constraints of time and logistics. The respondents were all enterprise owners. Some of the interviews were conducted in English, but most were conducted in Sesotho (Lesotho's national language) and translated into English by the first author. After completion of each interview, the recordings were saved in a .mp3 format, translated and transcribed into text and analysed thematically. Braun and Clarke (2006) hold that thematic analysis is an appropriate method for analysing qualitative data pertaining to well-being. The process consists of six phases, as shown in Table 1. Phase 1 familiarises researchers with the data from which initial codes are generated in phase 2. Phase 3 collates the initial codes into themes which are reviewed in phase 4. Phase 5 refines that themes through an iterative process from which the final output of 3 to 8 concepts is produced (Phase 6).

Phase	Description of Process			
1. Familiarising yourself	Transcribing data (if necessary), reading and rereading the data, noting down			
with your data	initial ideas.			
2. Generating initial codes	Coding interesting features of the data in a systematic fashion across the entit			
	data set, collating data relevant to each code.			
3. Searching for themes	Collating codes into potential themes, gathering all data relevant to each			
	potential theme.			
4. Reviewing themes	Checking in the themes work in relation to the coded extracts (Level 1) and the			
	entire data set (Level 2), generating a thematic map of the analysis.			
5. Defining and naming	Ongoing analysis to refine the specifics of each theme, and the overall story the			
themes	analysis tells; generating clear definitions and names for each theme.			
6. Producing the report	The final opportunity for analysis. Selection of vivid, compelling extract			
	examples, the final analysis of selected extracts, relating back to the analysis to			
	the research question and literature, producing a scholarly report of the			
	analysis.			

Table 1. Thematic Approach Process (Braun & Clarke, 2006).

A pilot study to evaluate the feasibility of the study was undertaken. Based on the pilot study, minor changes were made to the interview guide and the acquisition of a better quality recording device. A total of 23 interviews were undertaken and thematically analysed from which a summary of findings is presented in the next section. The interviews for the pilot project and the main study were all conducted by the first author. All ethical guidelines (dignity, privacy, confidentiality, anonymity, informed consent) were duly approved by the academic institution and were observed by the researchers.

4 Findings

Interviews were conducted with 23 MSE entrepreneurs in Maseru, Lesotho. The respondents represented a range of businesses, as shown in Table 2. The majority of interviewees operated clothing businesses (n=5, 22%) followed by pharmacies and salons (n=3, 13% respectively).

Business	Count	Average Years	Business	Count	Average Years
Clothing	5	8.8	IT and Office Equipment	2	8.5
Pharmacy	3	10.0	Stationery and Printing	2	14.0
Salon	3	4.3	Not Specified	2	11.0
General Dealer	2	1.0	Cigarette Vendor	1	5.0
Herbal Products	2	7.0	Cleaning Services	1	4.0
	•	•	Total	23	7.3

 Table 2. Business Type and Average Years of Operation.

The respondents had collectively traded for an average of 7.3 years. Stationery and printing businesses showed the highest average number of years of trading (average=14 years), followed by pharmacies (average=10 years) and clothing operations (average=8,8 years).

Nine respondents (39%) situated their businesses for accessibility to their market, while three (13%) were located their business based on the availability of space. One respondent (4%) did not have a fixed business location, and another (4%) operated online. The balance of 9 (39%) did not reveal any reasons for the location of their businesses.

The respondent businesses employed between one and eleven staff with an average headcount of 3.5 staff. Skill acquisition by the respondents stemmed predominantly from experience (n=13, 57%) while three (13%) had specialised training. Three respondents (13%) suggested that they require financial skills and one respondent (4%) showed an interest in acquiring marketing skills.

The majority of businesses were registered (n=15, 65%) and four (17%) were not registered. The balance of the respondents did not indicate their registration status. Half of the respondent businesses (n=12, 52%) were explicitly self-funded with one respondent acknowledging the use of bridging loans. The balance of the respondents was implicitly self-funded. For example, respondent four used deposits for funding "… you just deposit it into my M-Pesa account, and I withdraw money. That money I buy t-shirts with it and then print them".

4.1 Primary outcome

The primary outcome occurred when MSE entrepreneurs chose to use mobile money. For the MSE entrepreneurs, outcomes primarily revolved around achieving a higher quality of life associated with successful enterprises. Mobile money increased revenue and profits, often generating income from commissions on mobile money transactions.

Three primary outcome themes were observed: (1) convenient transacting with improved business outcomes; (2) financial management activities; and (3) financial inclusion and financial information access. The first outcome, having convenient access to financial information, was a goal stated by most of the entrepreneurs. Mobile money provided outcomes of time-saving, empowerment of economically disadvantaged individuals, financial management skills and cost reductions. Respondents found mobile money convenient for transacting. "I know that when I have deposited money today, tomorrow I can find it at my convenience." (Res 13). Mobile money made it convenient to process bill payments and to save, transfer and receive funds. "It has improved my life, like all the money that I have goes to M-Pesa. Whenever I want it, I just go get it. It is just makes my business easy." (Res 2). Mobile money was more convenient than handling cash. "It is the easiest way of handling cash." (Res 23). Mobile money led to improved business performance and increased turnover. "...but since M-Pesa came in the business flows quite easy" (Res 2). "it helps me get increased turnover" (Res 7). At the same time, mobile money helped the respondents to reduce costs. "it cut my transportation costs such as putting fuel into my car..." (Res 12). Overall, mobile money improved respondents' well-being and quality of life. "It has improved my life like ehh all the money that I have goes to M-Pesa. Whenever I want it, I just go get it. It is just makes my business easy." (Res 2). "M-Pesa plays a huge part in my life." (Res 6).

The second outcome of financial management was observed. Respondents considered mobile money as enabling them to manage money. "*I am able to manage money*... *Therefore, that enables me to save it.*" (Res 4). Respondents also benefitted from more accurate transactions compared to handling cash. "And while dealing with hard cash that might make a person to miss numbers during calculations. As well as misplacement of cash." (Res 17).

Thirdly, the respondents pointed out that the use of M-Pesa made them have a feeling of accessing commercial bank services, "*It forms something like a bank where a person can keep money because its fees are quite low as compared to bank fees*" (Res 6). Respondents showed appreciation for financial equality. "On M-Pesa, there is not platinum members or

gold cardholders. All people are the same" (Res 19). "I do allow them to use M-Pesa to transfer money to me. Especially those people from the rural areas." (Res 21).

4.2 Dimensions of Choice

For entrepreneurs to achieve the primary outcomes, choices must exist, and entrepreneurs must be aware of them. The entrepreneurs must also make use of the choices and have the ability to achieve the taking of choice before achieving an outcome. MSE entrepreneurs were observed to identify possible choices. The majority of respondents indicated that cost and access to mobile phones, the usability of mobile money services, education and geographic locations were not barriers for choosing an M-Payment platform. "*M-PESA provider officials came in here and asked me to join so I joined from that time*," (Res 16) "they gave me a phone and I didn't pay," (Res 16). MSE entrepreneurs guided customers through the purchasing process, especially customers who were not familiar with mobile money platforms.

The respondents knew about the opportunities that M-Pesa would bring into their businesses. They noted that using M-Pesa could enable them to improve their lives and enterprises' performance - both financial and non-financial performance. It was evident that MSE entrepreneurs knew the opportunities provided to their businesses by M-Pesa. Moreover, the telecoms provider made an initiative of offering free mobile phones to MSE entrepreneurs; hence, it was up to them how they used the resources and opportunities to achieve their desired outcomes. "…I want to see myself having a better life … I know that when I have deposited money today, tomorrow I can find it at my convenience." (Res 13). "…but since M-Pesa came in the business flows quite easy … to get more customers…" (Res 2). "it helps me get increased turnover" (Res 7). Respondents used mobile money for business purposes and to transfer and receive money to and from relatives and friends. "When someone came in to buy a laptop and then payment processing becomes easy through M-Pesa." (Res 2). "…M-Pesa helps me transfer money to friends and relatives" (Res 14). "Things such as business's water bills and electricity bills can be covered with M-Pesa money." (Res 22). "I do pay my employees through M-Pesa. Especially those ones who are working at home." (Res 11).

Achievement of choice related directly to the primary outcome whereby the use of mobile money combined a convenient method of transacting with financial inclusion and the ability to manage finances. Respondents were impressed with the role that mobile money played in their lives. Most respondents indicated that mobile money influenced their lives significantly. "We have a lot of customers. So M-Pesa, just like you are eager to know about it, it is one of the technological innovations that helps us a lot … Through M-Pesa my business was able to broaden its market." (Res 12). "That contributed significantly to an increase in customers because today not everyone goes around holding cash. People use M-Pesa or bank cards … The reason why I am living today it's because of this business." (Res 10). "I am now able to help my family as well as myself financially." (Res 9).

4.3 Limitations Affecting Choice

The respondents pointed out that although mobile money benefited them, they encountered challenges in using the technology. Withdrawal limit, network failures and safety issues were observed. M-Pesa restricted withdrawal amounts for business accounts as well as personal accounts. These restrictions limited access to the MSE entrepreneur limited to their financial information. "Since I have a lot of customers, even before the end of the month I will be told that I have reached the limit." (Res 60). "Limit is a major problem because I often withdraw money from M-Pesa and find that I even exceed a monthly limit." (Res 4). Network outages

were seen to restrict business operations. "Problems arise when there is no network connectivity. So in that case when a customer has paid we don't get a notification..." (Res 19). Security issues were a cause for concern. "I want to use M-Pesa as my bank. So such things need us to have a tight security especially towards late hours. Even when I am walking on streets I know that people already know that I am a bank and there is money with me." (Res 13).

5 Discussion and Conclusion

This study set out to explore MSE entrepreneurs choice to use mobile money in a developing economy. Using the setting of Lesotho, the current study observed MSE entrepreneurs being aware of the choice to use mobile money. MSE entrepreneurs were shown to choose to use mobile money and achieved positive outcomes from their choices. The findings confirmed that the use of mobile money within the MSE sector enabled micro-entrepreneurs to access financial information conveniently which led to lives that they value (Donovan, 2012). Consequently, calls for additional government and financial institution interventions could be justified from an individual perspective (Aker et al., 2013; Duncombe & Boateng, 2009). Nevertheless, the entrepreneurs faced several issues while using mobile money, including network disruptions, withdrawal amount limits and security risks. Thus, although mobile money provided capabilities for choices to be made, limitations to capabilities hamper development outcomes and achieved functionings as depicted in Figure 2.

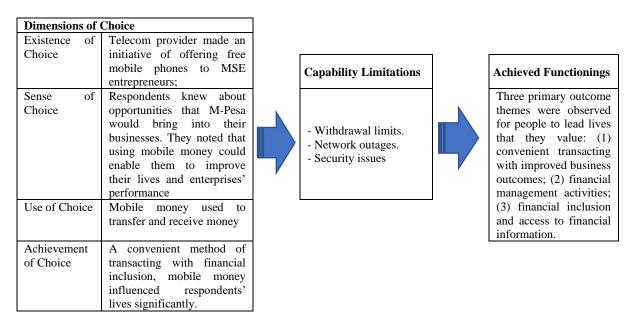


Figure 2. Dimensions of Choice Capability Limitations and Achieved Functionings.

Financial exclusion in the global South, particularly in the context of extremely impoverished countries such as Lesotho, remains a significant challenge that ICT4D researchers should seek to understand from various perspectives (Adaba et al., 2019; Tsibolane, 2016). Using Kleine's Choice Framework (Kleine, 2010), this paper highlights the need to align personal choice and its enablers and impediments in order to gain better insights about the role of ICTs in affording all humans the power to live the lives they desire to live. The implication of this study for state institutions and policymakers is that the creation of enabling structural conditions as well as the diffusion of mobile money products among micro-enterprises can help alleviate the sense of financial exclusion while promoting a culture of savings (Aker & Wilson, 2013). The study had a few limitations. It is a cross-sectional view of the entrepreneurs' experiences located in one city of a developing country where access to technology is superior compared to the majority of the country. Furthermore, the sample of 23 entrepreneurs from the business section of Maseru could be broadened to cover a broader population of entrepreneurs across more sectors of Lesotho life for a more generalisable study.

References

- Adaba, G. B., Ayoung, D. A., & Abbott, P. (2019). Exploring the contribution of mobile money to well-being from a capability perspective. The Electronic Journal of Information Systems in Developing Countries, e12079.
- Aker, J., Boumnijel, R., McClelland, A., & Tierney, N. (2013). How do electronic transfers compare? Evidence from a mobile money cash transfer experiment in Niger. Tufts University. Retrieved from http://sites.tufts.edu/jennyaker/files/2010/02/Zap-it-to-Me_12sept2013_No-Appendices.pdf
- Aker, J. C., & Wilson, K. (2013). Can mobile money be used to promote savings? Evidence from Northern Ghana (SSRN scholarly paper no. ID 2217554). Rochester, NY: Social Science Research Network.
- Anderson, C. L., & Reynolds, T. (2015). Review of Interoperability and Regulations of Mobile Money Pierre Biscaye, Caitlin Aylward. Evans School Policy Analysis and Research. University of Washington.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative research in psychology, 3(2), 77-101.
- Central Bank of Lesotho. (2013). Annual Report. Central Bank of Lesotho, Maseru. CGAP. Technology Program Country Note,pp.1-14. Available online at http://www.cgap.org/sites/default/files/CGAP-Technology-Program-Country-Note-GhanaJun-2011.pdf.
- Damane, M., Sekantsi, L., & Molapo S. (2018). Testing the stability of money demand function in Lesotho. International Journal of Sustainable Economy, 10(4)
- De Koker, L. & Jentzsch, N. (2013). Financial Inclusion and Financial Integrity: Aligned Incentives?, World Development, 44 (1), pp. 267–280.
- Donovan, K. (2012). Mobile money for financial inclusion. Information and Communications for development, 61(1), 61-73.
- Dube, T., Chitakunye, P. & Chummun, B. Z. (2014). Mobile Money as a Strategy for Financial Inclusion in Rural Communities, Mediterranean Journal of Social Sciences, 5(25), pp. 216-224.
- Duncombe, R., & Boateng, R. (2009). Mobile phones and financial services in developing countries: A review of concepts, methods, issues, evidence and future research directions. Third World Quarterly, 30(7), 1237–1258. https://doi.org/10.1080/01436590903134882
- Ezeh, P.C., & Nwankwo, N. (2018). Factors that Influence the Acceptance of Mobile Money in Nigeria. Journal of Research in Marketing, 8(2), 669-682.
- Finmark. (2018). Research Report on Mobile Money in South Africa. Available Online: <u>http://www.finmark.org.za/wp-content/uploads/2017/12/Final-Report-on-Mobile-Money-in-South-Africa-v11.1_clean_digital_CB.pdf</u>. Last accessed: 05 December 2019.

- Finmark. (2016). New facts and figures from Finscope MSME survey Lesotho. Available Online: http://www.finmark.org.za/new-facts-and-figures-from-finscope-msme-survey-lesotho-2016/. Last Accessed: 11 December 2019.
- Gencer, M. (2011). Mobile Money Movement: Catalyst to Jump-Start Emerging Markets. Innovations: Technology, Governance, Globalization, 6(1), 101-117.
- Gichuki, C. N., & Mulu-Mutuku, M. (2018). Determinants of awareness and adoption of mobile money technologies: Evidence from women micro entrepreneurs in Kenya. In Women's Studies International Forum (Vol. 67, pp. 18-22). Pergamon.
- Hughes, N., & Lonie, S. (2007). M-PESA: mobile money for the "unbanked" turning cellphones into 24-hour tellers in Kenya. Innovations: technology, governance, globalisation, 2(1-2), 63-81.
- Ignacio, M., & Ng'weno, A. (2010). Three keys to M-PESA's success: Branding, channel management and pricing. Journal of Payments Strategy & Systems, 4(4), 352-370.
- Jefferis, K., & Manje, L. (2014). Making Access Possible: Lesotho Country Diagnostic Report. A Report Commissioned by Finmark Trust, Centre for Financial Regulation and United National Capital Development Fund. Available online at http://www. finmark. org. za/wpcontent/uploads/pubs/MAP-Lesotho_Diagnostic-report_final_2014. pdf.
- Kemal, N.I.V. (2016). Mobile Payment System: Theory and Cases of Services Modularity. PhD thesis, The London School of Economics and Political Science (LSE).
- Kleine, D. Light, A., & Montero, J. (2012) Signifiers of the life we value? considering human development, technologies and Fair Trade from the perspective of the capabilities approach, Information Technology for Development, 18:1, 42-60.
- Kleine, D. (2010). ICT4WHAT?—Using the choice framework to operationalise the capability approach to development. Journal of International Development, 22(5), 674-692.
- Khoase, R. (2015). The influence of public and private supporting institutions on small, medium and micro enterprise development: a comparative study between Lesotho and SA. PhD Thesis. http://ukzn-dspace.ukzn.ac.za/bitstream/handle/10413/15147/Khoase_Refilee_Gladys_2015.pdf
- Kuklys, W., & Robeyns, I. (2005). Sen's capability approach to welfare economics. In Amartya Sen's Capability Approach (pp. 9-30). Springer, Berlin, Heidelberg.
- Kushnir, K. (2010). How Do Economies Define Micro, Small and Medium Enterprises (MSMEs)? Companion Note for the MSME Country Indicators. World Bank/IFC.
- Lepoutre, J., & Oguntoye, A. (2018). The (non-)emergence of mobile money systems in Sub-Saharan Africa: A comparative multilevel perspective of Kenya and Nigeria, 131, 262-275.
- Mazanai, M., & Fatoki, O. (2012). Access to Finance in the SME Sector: A South African Perspective. Asian Journal of Business Management, 4(1), 58 67.
- Mbiti, I., & Weil, D.N. (2011). Mobile Banking: The Impact of M-Pesa in Kenya. African Successes, Volume III: Modernisation and Development
- Mokoatleng, M. (2014). Small and Medium Size Enterprises' Access to External Finance in Lesotho. Master's Thesis. <u>http://scholar.ufs.ac.za:8080/xmlui/handle/11660/679</u>
- Mots' oene, K. A. (2014). The informal sector and human capacity building for sustainable development in MASERU. Journal of Emerging Trends in Economics and Management Sciences, 5(7), 109-114.
- Mramba, N., Rumanyika, J., Apiola, A., & Suhonen, J. (2017). ICT for Informal Workers in Sub-Saharan Africa: Systematic Review and Analysis. Retrieved from https://ieeexplore.ieee.org/abstract/document/8095530/
- Ntale, J.F., & Bosire, J.M. (2018). Effect of Mobile Money Transfer Services on the Growth of Small and Medium Enterprises in Informal Sector of Nairobi County, Kenya. International Journal of Information Research and Review, 5(3), 5326-5333.
- Perekwa, G.B., Prinsloo, T., & van Deventer, J.P. (2016). The Impact of Mobile Technology on Micro and Small Enterprises in Zimbabwe in the Post-Hyperinflation Economic Era. The African Journal of Information Systems, 8(3).
- Robeyns, I. (2003). The capability approach: an interdisciplinary introduction. In Training course preceding the Third International Conference on the Capability Approach, Pavia, Italy (p. 29).
- Schwittay, A. F. (2011). The financial inclusion assemblage: Subjects, technics, rationalities. Critique of Anthropology, 31(4), 381-401. (https://www.imtfi.uci.edu/resources/recommended.php)

- Sekantsi, L. P., & Lechesa, M. E. (2018). The national payment system in Lesotho, 2000–2016. Journal of Payments Strategy & Systems, 12(1), 74-88.
- Sekantsi, L.P., & Motelle, S.I. (July, 2016). The Financial Inclusion Conundrum In Lesotho: Is Mobile Money The Missing Piece In The Puzzle? Accessed from <u>https://www.centralbank.org.ls/images/Publications/Research/Papers/Working/THE_FINANCIAL_INCLUSION_CONUNDRUM_IN_LESOTHO.pdf</u>
- Sen, A. (1999). Development as freedom. The globalisation and development reader: Perspectives on development and global change, 525.
- Siringi, E. (2011). Women's small and medium enterprises for poverty alleviation in Sub-Saharan Africa: Lessons from Kenya. Management Research Review, 34(2), 186-206.
- Suri, T., & Jack, W. (2016). The long-run poverty and gender impacts of mobile money. *Science*, 354(6317), 1288-1292.
- Tsemane, A. (2015). The Impact of Mobile Money on Financial Inclusion in Lesotho. Retrieved from http://scholar.ufs.ac.za:8080/xmlui/bitstream/handle/11660/4615/TsemaneA.pdf
- Tsibolane, P. (2016). Towards a Conceptual Framework for Social Wellbeing through Inclusive Frugal ICT Innovation in Postcolonial Collectivist contexts. Conference on Information Resources Management 2016 Proceedings, 8.
- Vodacom. (2019). Vodacom Group Limited Preliminary Results for 2019. Available online: <u>https://www.vodacom.com/pdf/annual-results/2019/vodacom-fy19-results-booklet.pdf</u>. Last Accessed 20 December 2019
- Yousefzadeh, S., Biggeri, M., Arciprete, c., & Haisma, H. (2019). A Capability Approach to Child Growth. Child Indicators Research, 12(2), 711–731.