

Mobile Money and Ghana's Economic Development

ABSTRACT

Access to finance has been a major constraint in a lot of developing countries, especially in Ghana, This research seeks to explore the role of mobile money in the development of financial sector and its role in enforcing financial inclusiveness by making banking easily accessible and convenient. We also researched the way mobile money is improving financial access in Ghana and how this is transforming the economy as a whole. To Explore this, we conducted interviews and focus group discussion with customers in the rural and Urban areas in Ghana.

We realized that the Mobile money system has increased people's confidence in saving and investment, since their money is easily accessible with just a click away. People now feel much more safe and this system is educating more people rapidly in developing the culture of saving. This is improving how banks treat their clients in the rural communities and it is also creating employment for young graduates.

Keywords : Financial Inclusion; Mobile Money; Ghana; Development; Savings ;Investment

INTRODUCTION

Financial inclusion is a major subject of discussion for sub-Saharan Africa because of the percentage of the unbanked, the global Findex 2017 report indicates that sub-Saharan Africa has the least banked population but this phenomenon is changing since the introduction of mobile money. The report indicates that the number of people using mobile money in the region has increased from 10% in 2014 to 20% in 2017 and the number keeps growing.

Financial inclusion refers to a process that ensures the ease of access, availability, and usage of the formal financial system for all members of an economy. The merits of financial inclusion has been discussed by literature, It has been revealed by Salma and Pais (2011) that there is a broad relationship between financial inclusion and human development, it can decrease rural poverty (Burgess and Pande, 2005), increase employment (Bruhn and Love, 2014), expenditures (Dupas and Robinson, 2013) and savings (Brune, Giné, Goldberg, & Yang,2016). An inclusive financial system can also help in reducing the growth of informal sources of credit (such as money lenders) that are often found to be exploitative. Thus, an all- inclusive financial system enhances efficiency and welfare by providing avenues for secure and safe saving practices and by facilitating a whole range of efficient financial services.

Access to finance means access to opportunities, A lot of bright but needy students are left on the street just because the end to the means is not easily accessible. The informal sector in Ghana plays a big role in the economic development of the country since more than 50% of the working population are employed by this sector, but financial accessibility in this sector is very difficult. This is due to poor institutions (Demetriades & Hook Law, 2006) insufficient financial competition due to political deadlock (Rajan & Zingales, 2003), high inflation (Rousseau & Wachtel, 2002), and Trust.

This research seeks to explore the role of mobile money in the development of financial sector and its role in enforcing financial inclusiveness by making banking easily accessible and convenient for its customers. To Explore this, we conducted interviews and focus group discussion with customer.

BACKGROUND

Mobile money (MM) has formed a vital part of today's digital financial services ecosystem, which has seen and continues to experience exponential growth. Mobile money is one of the financial services leading this exponential growth in this ecosystem. Evidently, the GSMA 2018 State of the Industry Report on Mobile Money reports that "the mobile money industry added a record of 143 million registered customers in 2018 and currently processing over 1.3 billion transactions a day". The report further states that " the scale of mobile money continues to grow, with over 866 million registered accounts in 90 countries. The Sub-Saharan African is not lagging behind this time. According to Selin Ozyurt, Economist, Agence française de développement (AFD), "The unprecedented growth of mobile financial services in sub-Saharan Africa has defied all

expectations. While Kenya is often cited as a leading example of digital transformation, Ghana has recently become the fastest-growing mobile money market in Africa, with registered accounts increasing six-fold between 2012 and 2017. The country’s experience provides a fresh perspective on its digital transformation and demonstrates that technology can help modernize the financial system as well as also support greater financial inclusion”. The table shows the percentage of mobile money usage in the region.

Table 1 (Mobile Money and Human Development Index)

Countries	2014		2017	
	Mobile Money account Age +15(%)	HDI Ranking	Mobile Money account Age +15(%)	HDI Ranking
Côte D'Ivoire	24	242	34	170
Ghana	13	214	39	140
Kenya	58	213	73	142
Nigeria	2	225	6	156
Rwanda	20	151	27	158
Senegal	6	238	25	167
Togo	8	239	24	165
Tanzania	14	159	21	154
Uganda	18	187	26	162
Zambia	9	210	21	144

Table 1 below shows the increase in the percentage of mobile money usage from 2014 to 2017 in the sub-Saharan and the human development index rankings. The tables indicate a rise in the HDI due to the rise in the patronage of the mobile money system in the sub-Saharan region.

According to worldremit.com, “Mobile Money (MM) is an electronic wallet service that allows users to store, send and receive money using their mobile phone. Mobile money stores funds in a secure electronic account linked to a mobile phone number”.

Mobile money service required no complex procedures, expensive smart devices and/or sophisticated network infrastructures to work. With the already existing widespread diffusion of mobile phones and readily available telecommunication networks is enough for its operations. The simple and efficient nature of mobile money operations makes it readily accessible and friendly to

the vulnerable (women and children) and the financially underserved section of the populations of every economy globally, especially rural folks of Sub-Saharan Africa regions where most of the rural population, unfortunately, are underserved financially. Until recently, Africa is considered as the unbanked continent due to its crumbling infrastructure, weak internet connectivity, low levels of financial literacy, and thin branch network, which have made it difficult for the realization of financial inclusion goals, such as by providing financial services to unbanked and rural clients (Glavee-Geo et al., 2018). But with the introduction of mobile money barely two decades ago, has changed this tag of the continent as “unbanked” and inspiring digital transformation, increased financial inclusion, opening employment avenues, and creating a profitable business proposition, among others for various sectors of the economy in Ghana and Africa as a whole. One classical example is Kenya’s M-Pesa (M for mobile, pesa is Swahili for money) launched in 2007 by Vodafone for Safaricom and Vodacom, which has since expanded to Tanzania, Lesotho, Afghanistan, South Africa, India and in 2014 to Romania and in 2015 to Albania. M-Pesa allows users to deposit, withdraw, transfer money and pay for goods and services easily with a mobile device. This has opened the economy of these countries through the boosting of various economic activities that mobile money services support.

The use of mobile phones has become very common in the Sub Saharan African region to the extent that it is resulting in significant changes, sustainable growth as well as economic opportunities for the large unbanked population with the introduction of mobile money (Etim,2014). Countries like Kenya, Tanzania, Nigeria, Uganda, Ivory Coast, and others are really benefiting from the use of mobile money likewise Ghana is no exception. Further, Ayeebor (2016) shows that mobile money businesses have begun to transform the traditional ways of transacting business and transmitting money. The reported 34.5 million subscribers representing 119 percent mobile phone penetration in Ghana has positioned the country to harness the prospect of the mobile money services to boost its development agenda. Mobile money holds a bright prospect for accelerating developmental processes in many economies including Ghana through access to financial services. Mobile money is also fast-tracking the realization of the Digital Financing of the UN’s Sustainable Development Goals.

GHANA’S ECONOMY AND MOBILE MONEY EFFECTS IN THE ECONOMY

Ghana’s economy is basically made of formal and informal sectors. The predominant sector is the latter and more than 80 percent of the working population engages in various economic activities in this sector (Osei-Boateng C. and Ampratwum E., 2011). Getting accurate data on the informal sector is very daunting, therefore, the true representation and impacts the sector contributes to the economy are not entirely known. The statistics from the different reputable research organizations and the developmental partners mainly represent the formal sector to a large extent and only give a rough estimation on the informal sector. Ghana’s economic outlook has been remarkable compared to other countries in the Sub-Saharan Africa region. Ghana has been ranked by the world bank in 2017 as the second-fastest growing economy in the region, closely behind Ethiopia. In 2017, the Ghana economy accelerated to 8.1 percent. However, the World Bank noted that the

The Picture shows the top Countries with high Mobile Money Usage. The data is from the Global Findex 2017. This shows Ghana one part of the 6 countries in the world with high mobile money patronage.

Mobile money impacts on the economy of Ghana is positive and holds an impressive tendency with its flagship services in many sectors of the economy. With the economy digitization on-going, mobile money plays a vital role in the realization of this. Mobile money providing a role map and reeling in the informal sector into the mainstream. Financial inclusion among other things is just one key effect the mobile money impacting Ghana's economy. Recent Jumia's report on the Ghanaian Mobile sector showed that there are 34.5 million subscribers of mobile phone services which represent 119 percent penetration of the mobile phone in Ghana as in relation to the estimated 29.6 million population in 2018 by Ghana Statistical Service. Mobile money is filling the void where the segment of the population who have limited or no access to credit facilities are now having through the mobile money services. This is resulting in the growth of indigenous small-scale enterprises and new startups that are opening many employment opportunities to the population hence driving the development as the government sought to encourage the private sector to lead sustaining Ghana's economic performance.

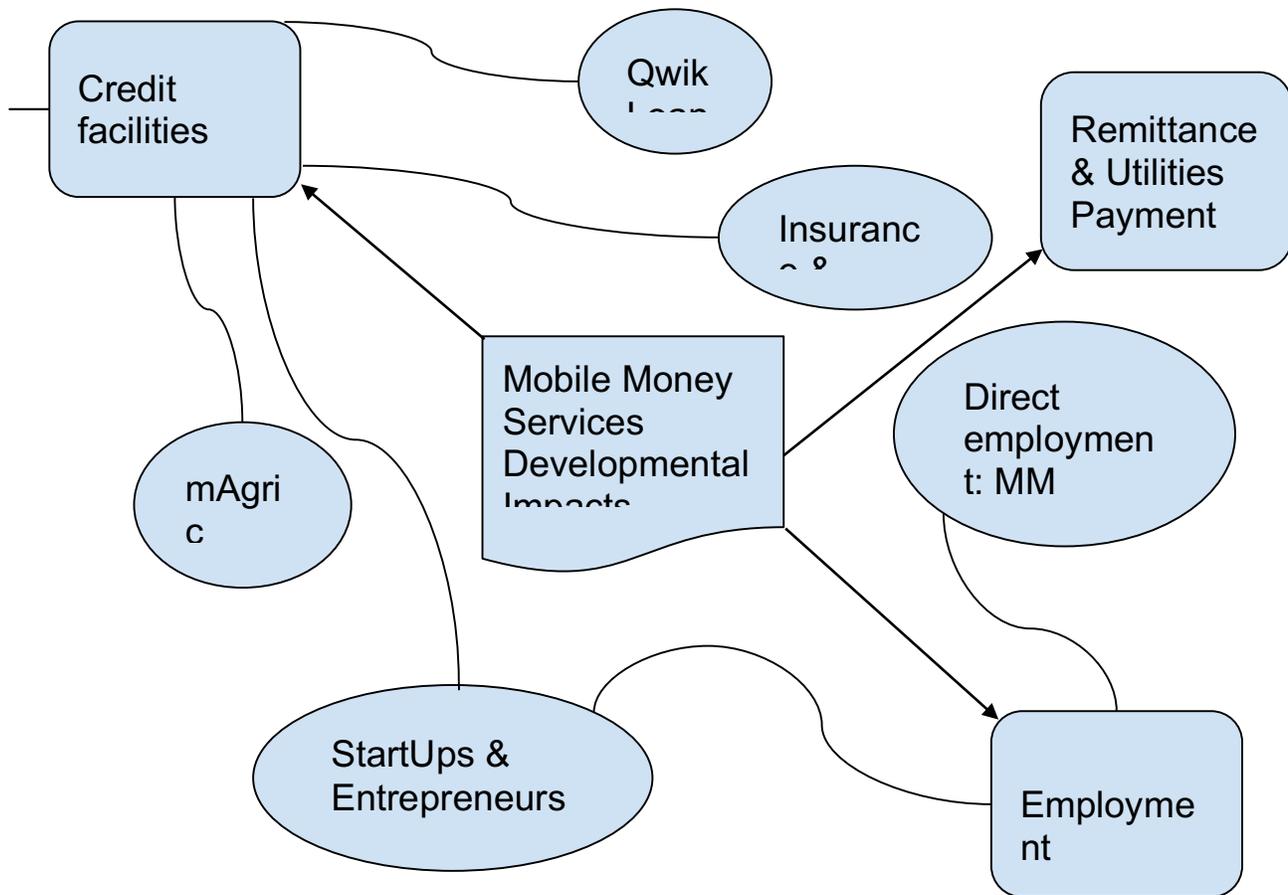
METHODOLOGY

This research is aimed at identifying the role of mobile money in the development of the informal sector and bridging the gap of the unbanked in Ghana. In order to achieve our objective, the study employed the method of random interviews of the marginalized populations from rural and urban areas of Ghana, who mainly engaged in economic activities in the informal sector. The study started by randomly talking to members of the communities across the country. In all, the interview has been done in 30 communities across the country. In each of the communities, 15 to 20 people were interviewed. Most of these communities are in rural areas (*Adarkwa, Achiansah, Kojohum, Sefwi-wiawso, Akwidaa, Chorkor, etc.*) of Ghana. This is because the informal sector is mostly found in the rural areas of the country. Farmers (especially in the cocoa farming villages), fishermen, petty traders and store owners, craftsmen and women (e.g. carpenters, masons, tailors, etc.) were engaged. Besides, the study proceeded to engage people in informal sectors in cosmopolitan-urban areas like Accra, Kumasi, Takoradi, etc. In each area that the interview was conducted, the study started by explaining the objectives of the study, followed by ascertaining if the participant is a subscriber to mobile money service or any other financial services. The kind of financial services the participant preferred. The participant is then encouraged to be frank and open about how access to financial services (in particular mobile money) or not has any effect on his or her circumstance. Through these interactions, problems faced related to financial accessibility were identified, how mobile money subscription has facilitated access to financial services and the potential of enrolling mobile money in other areas of the informal sector that will enhance the operations of the sector, therefore, contributing properly to the development of the economy of Ghana.

MOBILE MONEY SERVICES CONTRIBUTIONS TO THE DEVELOPMENTAL PROCESSES IN GHANA ECONOMY

MTN Ghana introduced the first mobile money service to the Ghanaian market in 2009 dubbed MTN Mobile Money, which is currently called MOMO. Initially, the services offered were money transfer and airtime top-up. Shortly, other telecommunication companies such as Tigo, Airtel and later Vodafone also launched their mobile money, this was a result of how rapidly the market size of mobile money was growing. Four years after the launch of MTN Mobile Money, the service has registered 4.8 million customers, 19,500 mobile money merchants and 18.5 million transactions (ISD, Zaney G.D.). Also, the Business news of *graphic.com.gh* reported that “mobile money accounts in Ghana hit 22 million as of the last quarter of 2017 and the figure is nearly double of the registered bank accounts, which stand at 11.6 million as at then. This was disclosed by the Director of Payment Systems Department of the Bank of Ghana (BoG), Dr. Settor Amediku when he contributed to a panel discussion on *Countering Mobile Money Fraud, Perspectives from Stakeholders*. Coupled with the government agenda to enable the private sector to lead the growth and sustain the economic performance Ghana has been experiencing, Bank of Ghana (BoG) quickly issued new guidelines - the Electronic-Money Issuers (EMI-Guidelines) and Agent Guidelines to regulate Mobile Financial services in the country. This replaced the Branchless Banking Guidelines of 2008, which were part of the central bank’s strategy to sanitize and create an enabling environment for efficient and safe ecosystem of mobile financial services in the country. With the massive patronage, stiff competition among the operators in the industry and support of the central bank, BoG with regulations, resulted in many innovative services of mobile money that contribute profoundly to the growth and development of the economy of Ghana. Some of these services of mobile money will be considered and ascertain their impacts and contributions to the development processes of the Ghana economy.

Pic. 2. Mobile Money Service Developmental schemes.



Pic 2 show a diagram of how Mobile money is influencing different sectors of the economy

- The Qwik Loan Service

The extent to which households and small enterprises have direct access to financial services varies sharply around countries of the world, with very limited access in many developing countries (Demirgüç-Kunt, Beck, & Honohan, 2008). The World Bank from its Universal Financial Access by 2020 (UFA, 2020) report states that as of 2014, 59% of the 16.3 million adults in Ghana did not have bank transaction accounts (World Bank, 2015). In spite of the numerous financial institutions in Ghana, there still remains a large number of individuals who cannot qualify or meet the requirements to participate in the mainstream banking system, (Lartey 2016). (Kodan & Chhikara, 2013) noted in their study that, 1 percent increase in financial inclusion led to an average of 0.142 percent increase in the value of the human development index. Indeed, Ghana is missing all these add-ups to accelerate its development processes.

The Qwik loan service of mobile money is rapidly changing this trajectory of financial inclusion efforts. In Ghana, financial inclusion increased from 29% in 2011 to 58% in 2018, largely driven by the adoption of digital financial services delivery in the country, particularly mobile money, (Acquah-Sam Ph.D. & Bugre, 2018).

According to MTN, the Qwik Loan service of mobile money is an innovative financial solution by AFB Ghana and MTN MoMo(MTN Mobile Money) that provides quick and convenient loan to subscribers of MTN MoMo. It's a short term, unsecured, cash loan paid into your MTN Mobile Money wallet. The loan is simple and accessible, with no previous savings required. If you pay your loan on time, every time, then you will continue to have access to a loan whenever you need it. The Qwik loan service is changing the stories of many participants in the informal sector. The shortfalls that engulfed the sector are becoming a thing of the distant past. Major among these shortfalls is lack of access to credit facilities hampered mobilizing efforts to raise quick capital for new ventures or expanding existing businesses. The nature of the business in the informal sectors normally required small amount of capital injection to carry out but due to the complex and unfriendly processes of the traditional financial services, make it difficult for these players to access credit facilities, resulting in lost opportunities and hampering the development processes in general - obviously development processes cannot occur without any economic activities. The alternative that Qwik loan mobile money service provided is facilitating access to credit facilities for these players as well as integrating them into the mainstream financing. The study reveals Qwik loan is helping the informal sector posting impressive growth.

From the interviews conducted, a respondent (taxi driver) in *Accra Metropolis* said :

“..with Qwik money loan, he is able to buy fuel for his taxi on days he is short on cash, and at the end of the day's work he pays back with the sales. Formerly he has to go to the money lenders who charged exorbitant interests which is the only option he had at the time. He does not qualified for bank overdraft regardless he is saving with the bank but with Qwik loan he does not need to go through all these inconveniences accessing loan..”.

Another amazing story that clearly shows that Qwik loan is helping the underserved population and significantly contributing to the development of the economy is the interview with a young entrepreneur from *Ada* who is a senior high school graduate. Through the use of the Qwik loan, he was able to start grasscutter and rabbitary farming. At the time spoken to him, his farm is supplying rabbit and grasscutter meat to major restaurants and shopping malls in Ghana as well as exporting to neighboring countries like Togo and Ivory Coast. He also employed additional five people that he pays. He has a bank account that is linked to his mobile money account and mentioned that some microfinance institutions are ready to give him a loan to grow his farm. Evidently, the Qwik loan service of mobile money made this success story possible. The mobile money unearthed entrepreneurial skills which are crucial for the development of the economy, also enrolls this player in the informal sector in the mainstream financial system of the economy, therefore, moving towards total financial inclusiveness of the population.

- **The mAgric Programme**

Expanding financial services to low-income rural customers especially farmers has been challenging for traditional financial service providers in developing countries like Ghana. Payments that agribusiness makes to smallholder farmers who sell their crops like cocoa, coffee,

cashew, etc. have not been efficient. These attempts have been hindered by some factors, for instance, lack of infrastructure, high default rate, an unwillingness by the smallholder farmers to embrace the kind of financial service being offered due to trust issues, high-interest rate, among others. Agriculture a key sector of Ghana's economy driven by cash crops (e.g. cocoa, coffee, cashew, etc.). The World Bank in 2017, reported the sector employed 40 percent of the population. Lack of proper financial support for the sector is posing challenges to the development and sustenance of the economic growth of Ghana. Fortunately, the mobile money flagship service mAgric is a promising way to unlocking the scale of digitization of agricultural payments, therefore fostering a broader rural digital financial ecosystem.

The mAgric program is launched by MTN Mobile Money with the support of GSMA Mobile for Development. According to MTN Ghana and GSMA Mobile for development, the program is a solution that facilitates the entire procurement and value chain process in the agricultural sector of Ghana. The mAgric service is enabling purchasing clerks of agribusiness and institutions to record crops procurement from farmers digitally, and pay farmers directly for their products instantly via mobile money. This mAgric service of mobile money digitization of the value chain payments system is eliminating the inefficiency in the cash-based payment as well as addressing the challenges using paper-based systems. Some of the benefits gathered through the interviews of the players in the sector is enhancing Business-to-Person payments system in agriculture, the prompt payment for the produce is also enabling the farmers to plan for the next season, giving insight to the agribusinesses to manage their funds efficiently and importantly it is improving transparency in the sector. The data collected through interviewing some of the beneficiaries in the cocoa villages like *Adarkwa, Achiansah, Kojohum, and Sefwi-wiawso* reveal some interesting facts that the use of mobile money gives them security. As one of the interviewees stated :

“..with mobile money they don't carry physical cash with them when they sold their produce, which draws the attention of unscrupulous members of the society to attack them since these people, are also aware of the season that they sell their produces. This gives a sense of security that their money is safe digitally and they have access to it anytime and anywhere they need it..”

Another feedback is that:

“..planning for their activities is effective and efficient, it is easy to procure fertilizers because through mobile money they are able to pay instantly for the fertilizers delivered. If they order fertilizer from a particular local distributor who is not having, they can easily move to another who is having stocks, their money is no more locked with any distributor of fertilizers since mobile money ensures instant payment on delivery..”

A cocoa farmer from *Nankese* also stated that

“..the use of mobile money has reduced her travel time for going for her produce payment..”

The mAgric program, however, is providing the entry point of financial inclusion for all these farmers that are part of the unbanked segment of Ghana's population. Currently, most were able

to send money digitally to their wards in schools, pay their utilities, renew their health insurance, and partake in many other financial activities that form the core of the digital financial ecosystem courtesy the enabler, mobile money efforts in widening financial inclusion of the unbanked.

- Insurance and Investment

Insurance and Investment industries have seen a significant surge in its customer base, resulting in more premium and capital available respectively. These significant positive boosts these industries are experiencing were as a result of the innovative use cases of mobile money. Considering the sub-Saharan Africa growing economic, coupled with its favorable demographics offer a great potential for the insurance industry, especially health insurance. The evidence through the interview conducted in the rural areas shows that the marginalized experience high level of health expenditures. Financially underserved population which forms the core of the rural population in Ghana, have also been underserved in health insurance. With the widespread access to mobile money, the insurance industry collaborating with the mobile money are making it possible for this less privileged segment of the population of Ghana to also subscribe to the health insurance by paying monthly insurance premiums through mobile money and the payment can be done in pieces over the course of the months. This is yielding positive results and the National Health Insurance of Ghana has also adopted this mode of premium collections to its scheme. Some of the interviewees said:

“..the breakdown of the premium payment and the mode of payment as well as redeeming claims make subscribing to the schemes convenient, reliable and affordable..”

Besides, saving and investment is another area mobile money is contributing to the developmental processes of Ghana. GSMA 2018 report on the industry states that 84.6 percent of Ghanaian investors bought shares of MTN Ghana's Initial Public Offer (IPO) using MTN mobile money. Most of these investors are first time investors. With the mobile money making the process very simple for marginalized segment of the population, they were able to buy some shares which is a worthy investment. This is a win-win situation, because capital (money) otherwise stored in a house is now made available for economy activities and through future dividend or capital gain from the shares will provide a means of income which the government can also generate some form of tax for developments processes. During the interview conducted in one of the rural areas called *Dzodze in the Volta region of Ghana*, a carpenter shared with the team that:

“..the artisans in the area have “susu system” (P2P system) that they greatly benefitted from- this however is not sanctioned by the operators of the mobile money service but the locals who are mostly disenfranchised by the traditional financial system created their form of mobilizing fund for themselves through contributing and giving the money to one member of the group and this system runs rotationally..” (This system might not be ideal, but currently, working to provide some level of capital to undertake various projects like buy working materials, paying their wards school fees and many other things).

Another individual interviewed in a town called Kintampo also attested that through mobile money he is able to own a small part of MTN Ghana by buying the MTN Ghana's IPO. He made it clear that he has been wishing to invest in earlier IPOs but the processes normally discourage him, but with mobile money it is very simple and convenient.

- **Employment Opportunity and Entrepreneurial Development**

Apart from the financial inclusion that mobile money is championing in Ghana's economy is the employment opportunities that it is creating as well. According to Ghana Business and Finance magazine, 13 billion (Ghanaian Cedi) is accrued from mobile money transactions in Ghana every month, making Ghana the leader in West Africa (World Bank Global Findex Survey 2017 Report). Furthermore, about 82 million transactions are realized daily from mobile money transfers while the number of registered and active mobile money agents currently stands at 151,000 representing 25 percent increase since 2012. Meaning 151,000 businesses/agents were created instantly. This has a major positive impact on the unemployment figures of Ghana. Besides, this only the direct form of the employment opportunity realized from mobile money. Beyond, the micro-credit that mobile money provides, that is helping grow many entrepreneurs that are resulting in many profitable ventures and startups. Most of these ventures create opportunity for employment as well as initiating growth for Ghana's economy. Many financial underserved, rural folks and the timing number of high school and university graduates are getting a fair chance and opportunity through mobile money to engage in economic activities of the country, therefore, leading the growth and sustaining the development processes of Ghana. A respondent from one the interviews shows her business centre where she employed three individuals and her business Centre provides additional services to mobile money agents like printing, utilities bill collection and an internet cafe. According to her she started with mobile money agents. The capital involved to be an agent is very low and affordable so she seized the opportunity and with time she has grown it to a full business that employs others.

Conclusion:

This research was a target at the influence of mobile money (MM) in the developmental process of Ghana, to explore this we interviewed people in the rural and urban communities in Ghana to see how the MM has affected their lives. People who participated were frank with their response. Because it is a service it has got areas which need to be improved, they expressed both their contentment and dissatisfactions. In all their testimonies were more positive than otherwise.

We realized in our interviews that, most people enjoyed particularly the Qwik loan service because to them it gives them access to money as and when they need it. A lot of young petty traders in the market, testify how the Qwik money service has helped them in raising money to start their petty

trading. Some students also stated how they were able to raise quick money to purchase their university forms.

We realized that the Mobile money system has increased people's confidence in saving and investment, since their money is easily accessible with just a click away. People now feel much more safe and this system is educating more people rapidly in developing the culture of saving. Getting financial assistance is now simple for the clients, because they do not need any collateral to be able to access loans.

Upon all the goodness of the MM system. We realized that some customers also takes the system for granted. Most customers tries to switch sim cards just to borrow money from the system, because access to sim card is simple and vendors sometimes registers the card before selling not in the name of the client but just uses a random name. This possess a great risk to the MM system.

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