

Placing Retailers as Agents of Change in the Transformation of Mobile Payment Transactions in Ghana

¹Yaw Owusu-Agyeman, ² Abena Offe

¹ Examination and Records Unit, Ghana Technology University College

² Technology Research and Innovation Center

¹ yowusu-agyeman@gtuc.edu.gh, ² aoffe@gtuc.edu.gh

ABSTRACT

The continuous rise in the number of mobile phone usage in Ghana has created the need for further study into the other uses of phones. Although some of the mobile money services are presently being used by some subscribers in Ghana, the market penetration has not been very encouraging especially among the rural and urban poor. This has precipitated further research in the area of mobile payment systems and financial services with emphasis on the role of the retailers as authorized agents for telecommunication operators in the business. Field survey was conducted in the urban and rural poor areas of Accra and Swedru respectively and it involved 350 retail agents in fourteen communities and towns. Semi-structured questionnaires served as the main instrument for collecting data from the field and the analysis were done using the Technology Acceptance Model (TAM), the Task-Technology Fit and Mobile Money proposition for retailers. The results show that although majority of retailers had heard of mobile money services, very few of them had used the services. Their response however revealed the need for further education on the benefits of mobile money usage and the relevance of transacting business without holding cash.

Keywords: *Mobile money, retailers, uptake, mobile network operators.*

1. INTRODUCTION

The invention of the mobile phone has become one of the most creative and useful innovations of the 21st century. The widespread availability of mobile phones has increased its application to various spheres of life. Not only does it serve its primary purpose of communication, but it is also used as a platform for other services such as financial and medical. [12] and [2] posit that modern mobile services are migrating from basic usage such as voice calls to more complex content-oriented services such as providing digital financial services to serve all categories of people.

Africa has been described as the world's fastest-growing mobile phone market. Over the past couple of years, mobile phone subscription has increased by over 500 percent, according to the data from the United Nations [5]. In 2011, it was estimated that Africa had over 500 million mobile phone subscribers with Nigeria, South Africa, Kenya and Ghana being the four biggest countries [11]. Statistics provided by the United Nations Conference on Trade and Development (UNCTAD) indicate that Africa leads the deployment of mobile money systems with an estimated 51 mobile money systems¹.

Countries like Kenya and South Africa have been successful in the adoption and use of mobile money services. The Kenyan M-pesa, which was launched in 2007, is currently being used by 10 million out of the total 37 million citizens [11]. The same cannot however, be said for countries like Ghana.

In Ghana, the rate of mobile phone subscription has increased over the years. Statistics published by the

International Telecommunication Union (ITU) indicate that mobile phone subscription has increased from 130,045 in 2000 to 17,436,949 in 2010 (Jenkins, 2008). Currently six (6) mobile operators provide mobile phone services in Ghana – Airtel, Kasapa, MTN, Tigo, Vodafone and GLO. Three (3) of these operators namely: MTN, Tigo and Airtel, have introduced various mobile payments services with the aim of providing financial access to people in the country.

The success of the mobile payment systems depend on the ability of institutions and individuals to create an enabling environment [10]. Such enabling environment is also affected in part by the legal and regulatory systems which define the mode of operations of these businesses. Value proposition for retail agents was identified as key to the successful uptake of mobile money in Ghana. Creating a connection between agents' expected earnings and the investment in the business has been identified as important when it comes to the financial return that they get from the engagement.

These services, which are usually related to utility bill payments and money transfer, have however seen low levels of participation especially among the poor in Ghana. Earlier research projects have explored the activities of various operators in the industry in satisfying consumers, the different services provided, the introduction of new products and innovations, the adoption rates by different users (rural poor, urban poor and urban), and the way forward for mobile money services in Ghana [1]. Work has also been carried out to assess the role of the telecom operators, financial institutions, regulatory bodies and the mobile phone users in the scheme of things. The Technology Acceptance Model (TAM) which has been widely used to assess 'user adoption' was introduced by Davis [3] and it was developed to study the understanding of how users adopt

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and use new technology based on an evaluation of the reasons that influenced the decision to accept a new technology. The TAM is based on the assumption “that perceived ease of use and usefulness can predict attitudes toward technology” [7].

It is hoped that our interaction with the rural and urban poor will yield first-hand reasons that will explain the basis for the low uptake of mobile money in Ghana. Undoubtedly, understanding the delimiting factors to mobile money adoption in Ghana would inform mobile money operators to develop a more user-friendly and user-centered product that would enhance the uptake of this cashless transaction in a primarily cash based society.

2. THE NATURE OF RETAIL OPERATIONS IN GHANA

[4] notes that mobile money services is connected by a two-sided market in which new deployments need to convince agents and customers to register for the service in sufficient quantity to be viable. However, the major challenge is how to develop and reward agents within the network while maintain the optimum liquidity at the outlets. According to the June 2011 country report of Consultative Group to Assist the Poor (CGAP), only 30 percent of the 15 million adult populations in Ghana have access to formal financial services. Although this figure is higher than the average for the Sub-Saharan African Region, we still consider it as low.

The first activity involved documents review of mobile money services in Ghana and other countries. There review focused on the various players in the provision of mobile money services and their roles. It assessed the various mobile money services available in Ghana and the rationale for the introduction of these services. Other demographic characteristics of existing mobile companies were considered these were: the various technologies adopted, company size, the number of offices and their location, the regional spread of offices and customer base. Challenges, successes and government regulation, if any, would be investigated and documented. The desk study assessed the various processes involved in the delivery of mobile financial services. The review was done to examine the current role of retail agents in Ghana in comparison to other countries where mobile money service uptake is relatively high. The review will seek to highlight the successes and challenges of the services in Ghana.

The present mobile phone penetration of Twenty Four Million, Four Hundred and Thirty Eight Thousand, Nine Hundred and Eighty Three (24,438,983) can be considered as a fertile ground for the promotion of mobile money activities in Ghana. This figure represents about 98 percent of the total population of Ghana. If well nurtured and developed, a greater percentage of our rural folks will not only have access to digital financial payment systems and services but more importantly, they will be engaged

in seamless financial activities and also be counted among users of emerging technology in the world.

According to the June 2011 country report of Consultative Group to Assist the Poor (CGAP), only 30 percent of the 15 million adult populations in Ghana have access to formal financial services. Although this figure is higher than the average for the Sub-Saharan African Region, we still consider it as low. Today, Ghana has an active branchless banking market with three (3) mobile network operators and twelve partnering banks that are at the fore front of this drive. There are also a reported 3 million registered customers representing 20 percent of the adult population in Ghana.

Available statistics from the three Mobile Network Operators in Ghana who are into mobile money show that there are 5.4 million subscribers with total daily transactions of approximately GHC 16.5 million transactions daily. If all stakeholders would harness their resources and ideas, we could as a nation reach the “unbanked” especially those in the rural areas.

3. RESEARCH QUESTIONS

The study sought to answer the following questions:

- Who are the retail agents in Ghana and how can their services is improved to provide digital payment systems and financial services to Ghana's rural and urban poor?
- What are the issues hindering the uptake of mobile money services among the rural and urban poor in Ghana?
- What enhanced role can retailers play to address the low uptake issues pertinent to the rural and urban poor in Ghana?

4. METHODOLOGY

This study was undertaken within the positivist paradigm which was made up of a quantitative method of research which identified the objectivity of the research process as necessary for establishing the existence of a phenomenon. The quantitative mode of research in the positivist paradigm identities the relevance of the objectivity of the research process which also involves applying experimental methods, administration of pre and post-test methods to measure scores.

The study was expected to be carried out in different phases and it sought to improve the uptake of digital payment and digital financial systems by identifying problems and finding practical solutions with focus on the retailers. In the Central Region, areas such as; Oda Kwan Ano (Oda Road), Nsu Soo So, Okwam Kurom, Swedru Market Area, Tezzaco, Happy Corner (Near Agricultural Development Bank) were covered in the research. In Accra areas such as Nima, Maamobi, Chokor, James Town, Amasaman and Oyibi were covered in the study.

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The focus of researchers was primarily on the role of retail agents in the uptake of digital financial services and payment systems in Ghana. Semi-structured questionnaire were used to obtain information from retailers who were considered as key to the uptake of mobile money in Ghana. The interaction, apart from being a source of information for the research team also served as a platform for consumers to be educated on the project. Other major stakeholders in the mobile money market including telecom operators, financial institutions and regulators were also interviewed. The questionnaire was grouped into four (4) main sub-teams as follows;

- i. Mobile Usage habits and demographic characteristics of retailers.
- ii. Digital financial transactions made and saving attitude.
- iii. The Technology Acceptance Model (TAM) as a means of identifying retailers' response to technology and the behaviors associated with it.
- iv. Mobile Money Value Proposition for agents and technology task fit.

4.1 Population and Sampling technique

The purpose of the survey was to capture the reasons for the low uptake of mobile money services in Ghana from a retailer perspective. Questionnaires were distributed 350 retail agents in two regions in Ghana. Simple random selection was used in obtaining relevant information from the respondents. The data analysis was done with use of the SPSS software. Descriptive inferences backed with figures and charts were developed from the data collected [13].

Retail agents in the current environment serve as a link between the telecom companies and consumers, and continue to play a vital role in the provision of mobile money services. They provide various services from selling pre-paid airtime, phones and accessories to signing up customers. They also provide consumers with information on various services provided by the telecom operators. In this role, retail agents were considered as best placed persons to persuade customers to adopt new services, receive customer complaints about services and know the kind of services required by consumers. The experience of various mobile network operators show that retail agents can be a valuable source of innovation as they are close to the customers and can observe their habits and needs. This information can be used to create new services that meet the needs of consumers [6].

The study used a probability sampling method which was simple random sampling technique. Respondents were selected from the Central and Greater Accra Regions in Ghana and it involved a sample size of five hundred (500) respondents from eleven communities in the two region.

5. DISCUSSION OF RESULTS

5.1 Mobile Money Usage and Demographic Characteristics of Retailers

5.1.1 Demographic Data

The demographic characteristics of respondents included, their age, level of education, occupation, sex, and marital status. The study revealed that 260 respondents representing 74.3% of the total number of respondents were between ages 19 and 30 while those between ages 31 and 45 were 47 representing 13.4%. However there were 39 respondents who were below age 18 and these constituted 11.1% of total respondents. 3 respondents were between age 46 and 50.

194 of the respondents representing 55.4% were males while 156 of the respondents representing 44.6 % were females.

The occupation of respondents as provided on the chart below confirms that most of the retailers in rural and urban poor communities are engaged in solely the sale of top-up cards for air time. 231 respondents representing 66% had sale of top-up cards as their main business activity. However, 37 respondents were students who stated that they sold top-up cards to support payment of their fees and other essential items. 34% of respondents consisted of retailers who were engaged in 26 different activities but sold top-up cards as extra activity to gain additional income.

5.1.2 Occupation of Respondents

The educational background of the respondents were also sought to provide us with information about the qualification of retailers and their level of understanding the basic processes in mobile money. The results of the survey on the educational background of respondents are presented below;

5.1.3 Level of Education of Respondents

136 retailers representing 38.9% were Junior Secondary School graduates while 118 respondents representing 33.7% had completed Senior High School. There were other retailers who had completed tertiary education while others did not have any form of formal education.

5.2 Mobile Money Transactions and Saving Attitude

[4] Argues that mobile money support from relevant stakeholders must be justified by accessing the benefits on factors such as financial inclusion, poverty reduction, increased productivity and risk Management. However, there could be hindrances to the benefits of mobile money especially where the cost per transaction is high, as it is in the case of Botswana and this could adversely affect the growth rate of the industry.

5.2.1 Saving Attitude

The rationale for asking respondents about how they saved their earnings was to enquire about the general

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saving habits of retailers in the mobile money business and to ascertain their readiness to provide the needed support to the mobile network operators. The field survey revealed that 50.60 % of respondents did not save their earnings in the bank while 49.40 % indicated that they saved their earnings in the bank. When asked further about the type of services they preferred when using the banks, the response of the retailers cut across six (6) different platforms namely; Automated Teller Machine (ATM), on-the-counter transactions, e-zwich, susu, internet banking and speed banking.

5.2.2 Preferred Financial Services

The research showed that the most preferred banking services as stated by the retailers was the Bank Tellers where they had direct contact with bank officials. This was followed by the ATM and mobile money.

5.2.3 Income levels

The study also showed that most of the retailers only traded in air time sales thus reducing their monthly income levels. 227 respondents representing 64.9 % of respondents indicated that they earned less than GHC 100.00 a month as compared to the remaining 35.1% who indicated that their earnings per month were between GHC 10.00 and GHC 500.00.

5.3 Mobile Money Services among Rural and Urban Poor Communities

When respondents were asked about their knowledge of mobile money services, 70% of the respondents representing 20% indicated that they had not heard about mobile money while 280 respondents representing 80% indicated that they had heard about mobile money but did not have enough idea about its usage. 80 respondents representing 22.8% of total respondents stated that they were actually using mobile money for their personal businesses and also were providing services to their customers. Retailers who were providing mobile money services indicated that their monthly income levels were between GHC 10.00 and GHC 500.00 depending on the area and the extent to which awareness of mobile money usage had been created.

It is estimated that the present mobile phone penetration in Ghana is Twenty Four Million, Four Hundred and Thirty Eight Thousand and Nine Hundred and Eighty Three (24,438,983). The study revealed that the 350 retailers interviewed were using 599 phones in their retail businesses. However, 37 respondents representing 10.6% stated that they did not have a mobile phone for their business activities. Figure 4 provides details of the distribution of mobile phones by the respondents;

5.4 Key Indicators in Mobile Money Uptake

The final part of the research involved of discussion of the analysis of Mobile Money Value Proposition for retailers, technology task fit and the application of the Technology Acceptance Model which

we envisage will provide us with the necessary information of causes of low uptake of mobile money services.

5.5 Technology Acceptance Model

The use of mobile phones: approximately 50% of respondents indicated that they used mobile phones frequently for their businesses ease of use of technology among retailers especially due to its importance

5.5.1 Perceived Ease of Use

The study sought to identify the ease with which retailers used their mobile phones especially for other transactions. 42% of respondents indicated that they were very comfortable using the mobile phone device especially in performing other functions such as transferring credits and making money transfers. When asked specifically about the use of mobile money for business purposes, only 9% indicated that they were conversant in the use of mobile money. Surprisingly, 54.3% were not very sure whether they encountered problems when using mobile money for their businesses. 7.5 % of respondents indicated that the procedure to use when transacting business on the mobile phone was very clear understandable, 55% of respondents however indicated that they were not sure about their understanding of the procedure and instructions to use mobile money. When asked about their opinion on the use of mobile money and their anticipation of its ease of use later, about 55% of respondents were generally indifferent about its ease of use.

5.5.2 Perceived Usefulness

While 50.6% of respondent agreed that mobile money services will greatly enhance their businesses and improve on their services to customers, 43% of respondents downplayed the importance of mobile money services. Those who did not really perceive the importance of mobile money in their businesses indicated that they were several challenges with the use of mobile money that needed to be considered. When asked about how quick mobile money could help them transact their businesses, only 4.7% of respondents were of the opinion that mobile money could help them transact their business operations with ease. 42% of respondents were indifferent while 43% did not think mobile money could help them transact business faster than the conventional means. While only 3% of respondents agreed to the enormous benefits of the use of mobile money, 44% were indifferent about its advantages while 53% of respondents were of the opinion that mobile money had very little benefit to offer both the retailer and the consumer.

5.5.3 Perceived Mobile Money Fraud

The study revealed that the retailers had very little to worry when it comes to issue of financial security in the use of mobile money. While 16% of respondents expressed some worries about the security of their finances in the use of mobile money, 25% had very little about financial security while 55% were indifferent about issues of financial security in mobile money transaction.

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When the respondents were asked how the possibility of fraud could hinder their use of mobile money services, 30% of respondents noted that they were concerned about the issue of fraud in the business. 44% of respondents indicated that they were indifferent about the issue of fraud while 30% expressed very little concern about the challenges fraud poses to them.

5.5.4 Intention to Use

When respondents were asked about their intention to use mobile money for their business activities, 3% indicated that they would continue to explore and use mobile money services to their benefit while 54.6% stated that they not consider the use of mobile phones for mobile money transactions. This result summarizes the general opinion of respondents on issues pertaining to intention to use mobile money. Majority of respondents indicated that mobile money was not a preferred means of transacting business.

5.6 Mobile Money Value Proposition for Retailers

The study sought to identify the benefits mobile money usage could provide retailers and questions regarding financial benefits, opening of bank accounts and the need for further training were asked.

1.5% of respondents indicated that they were likely to obtain significant financial benefits from the use of mobile money while 54% of respondents considered mobile money transactions as not financially rewarding. They argued that the profit margin on the transactions was not worth considering for business activities hence their disinterest in the adoption. Asked if they considered training as essential to their use of mobile money services, 4.2% of total respondents noted that proper training could change their perception on the usage and benefits of mobile money. 47% of respondents however indicated that training in mobile money application and services could not change their decision not to use mobile money services and the remaining 39.8% of respondents were indifferent about the issue of training.

3.7% of total respondents however indicated that they considered having a bank account as vital to the usage of mobile money while 44.6% of respondents were indifferent about the significance of bank account to mobile money services. 51.7% of respondents indicated that they did not consider owning bank account as essential to mobile money transactions since they could easily make payments on their own and keep their finances without necessarily resorting to the banks for assistance.

5.7 Task-Technology Fit

The task-technology fit sought to identify how the products provided by the various mobile money service providers could be easily used by the retailers. The most important factors that were identified for consideration were; availability of product information, operator assistance or help desk and information on product upgrade. 11.2% of respondents indicated that they got information on the product of the various telecommunication operators from the internet

and other media. 21% of respondents stated that they had no means of obtaining regular updates on product information from the various telecommunication operators while the remaining 67.8% of respondents indicated that they were indifferent about the information provided by the telecommunication operators about their products. While most of the respondents indicated that they seldom received information on product updates from telecommunication operators, some were of the opinion that it was important for the operators to provide detailed information and training to retailers so that they can effectively use the products and provide the needed services to their clients.

6. STUDY LIMITATIONS

The several challenges in the data collection process included; apprehension on the part of some respondents because very little idea about the rationale of the researchers, fear of disclosing information about their businesses and suspicion of the researchers because of the prevalent cases of fraud in the districts by people from outside the community. Although some of the respondents provided inaccurate information regarding their businesses, the research team was able to glean from them the very useful ones.

7. FINDINGS AND CONCLUSIONS

The research however concluded on the following;

Education on mobile money usage and transaction has not been very effective as most respondents knew very little about the additional benefits they could derive from the use of their phone.

Throughout our interaction with the retailers, we concluded that most of the retailers in the rural communities earned very little from the sale of top-up cards and thus could not think of increasing their capital to add other services. In addition to that, they stated that the people in the community were mostly farmers and artisans who were not earning much and so could not patronise digital financial services.

The study brought to light the difficulties retailers encounter in their day to day activities. The research team noted that it was very difficult for the mobile network operators to train the retailers because they did not have the assurance that the retailers will actually use the knowledge and technology to serve their interest rather than their competitors. This factor seem to be a major setback for mobile money uptake in Ghana. Most of the retailers who were interview seemed to be either disinterested in the mobile money business or were completely ignorant about the benefits of doing business with very little cash. The lack of enthusiasm was a major source of concern for the researchers who identified that education on mobile money will have to be done with the needed urgency to enable potential users adopts its usage. This can be done though greater collaboration between the various mobile network operators to create the needed awareness for retailers

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