

Mobile money services and economic empowerment of Airtel money users in Huye District of Rwanda.

Eugenie Byukusenge^{*a}, Liberata Mukamana^a, Celestin Musekura^a, Dan Ndosimana^b

^a Lecturer, College of Business and Economics, University of Rwanda

^b PhD student in Gender and Development, College of Arts and Social Sciences, University of Rwanda

*Corresponding author: eugbyukusenge@gmail.com

ABSTRACT

This study analyzed the contribution of mobile money services in promoting the economic empowerment of both females and males in Huye District, Rwanda. Mobile money services have been adopted as means to enhance financial inclusion and reduce poverty in developing countries. However, previous studies have been gender neutral by not considering different socio-economic factors driving females and males to use mobile money services and how adoption of mobile money services has differential effect on the livelihood of males and females. A cross-sectional survey design was utilized in this study whereby a questionnaire and focus group discussions were used for primary data collection. The study revealed that most females use mobile money services for sending to or receiving money from friends and relatives while men mostly use it for business purposes. Concerning the income gained, the study revealed that the proportion of females and males are quite equal for the amount \leq Rwf 50,000 while the percentage of males is the highest when the amount is $>$ Rwf 50,000. The socio-economic analysis indicated that mobile money services have contributed positively to the increase of income and welfare of respondents. The study recommended further investigations on the topic by including more companies offering mobile services and covering more districts. A countrywide comparative study between mobile money services users and non-users should also be undertaken to test whether adoption or non-adoption of these mobile money services has differential effects.

Key Words: Mobile money, gender, economic empowerment, Rwanda

1. Introduction

Previous empirical studies show that mobile money services bring numerous benefits to their direct and indirect users. These benefits include easing remittance services whereby, for instance, rural people who have migrated from their villages to seek for better employment opportunities in urban settings or abroad send money back home to support their relatives, to pay for bills and government payments, to repay back microcredit and to make savings (Heyer & Mas, 2009). Taking a well-known example of Kenya, it is well documented that digital financial services started with the introduction of M-PESA by Safaricom in 2007. Empirical studies show that M-PESA was successful in Kenya given that “by September 2009, US\$3.7 billion (close to 10% of Kenya’s GDP) had been transferred over the system; in April 2011 M-PESA had 14 million subscribers and close to 28 thousand agents” (Batista & Vicente, 2013).

The success story of M-PESA in Kenya aroused the interest of many other African countries to promote this business of mobile money as a strategy for increasing financial inclusion and reducing poverty. The importance of money transfer has been highlighted by Sife, Kiondo and Lyimo-Macha (2010) who indicated that out of 293 respondents in Morogoro, Tanzania; 50.1% of them reported that mobile usage had enhanced their abilities in sending and receiving money. Batista and Vicente (2013) also found out that mobile money services contributed to increased marginal willingness to send remittances in Mozambique. In fact, it gave birth to the culture of saving among rural people. Likewise, mobile money services have expanded rapidly in Uganda, whereby over 30% of the adult population was able to register as users in four years since its inception (Munyegera & Matsumoto, 2016). The same authors reported that households with access to mobile money services are more likely to receive remittances more frequently and receive higher value of remittances than non-users.

To demonstrate the contribution of mobile money services to the overall development of the country, The National Bank of Rwanda (NBR) publishes annual reports showing the increase in the number of registered users, annual transactions and their corresponding values in the Rwandan currency. As evidence, the first annual report published by NBR on Mobile Money services in Rwanda pointed out that in December 2011 there were 155, 986 registered as mobile money users with a total transaction of 527,300 equivalents to 5,215 million Rwf (NBR, 2011). From that period

statistics on how mobile money services increased the Rwandan economic growth are provided in table 1 below.

Table 1: Rwanda Mobile Banking statistics

Period	Number of subscribers	Number of transactions	Value in Rwf millions
2011	155,986	527,300	5,215
2012	297,537	1,458,063	3,926
2013	412,007	2,538,820	17,459
2014	659,712	4,637,849	41,281
2015	828,799	5,617,368	48,309
2016	980,671	3,906,642	37,164
2017	1,158,944	3,082,829	35,849
2018	1,845,584	3,206,474	53,287
2019	2,065,624	1,999,250	85,462
2020	1,854,424	5,649,459	277,078
2021	2,208,683	6,633,632	519,355
2022	2,248,588	18,753,121	3,000,423
2023(Q1&Q2)	2,529,108	11,705,911	2,289,458

Source: National Bank of Rwanda: Mobile Banking Statistics, <https://www.bnr.rw/index.php?id=159>

Despite the great contribution of mobile money services as a developmental tool, previous empirical studies have been silent about gender considerations in the adoption and the usage of mobile money services. To address this research gap, this study explored reasons that drive men and women to adopt mobile money services as well as the potential differential welfare effects of mobile money services to men and women.

2. Literature review

This section discusses about existing literature on the benefits of using mobile money services and its implications to the existing gender inequality in access to and control over financial services.

2.1 Benefits of mobile money services

a) Financial services innovation

Mobile money was found to play a prominent innovation in financial inclusion by designing and offering existing or new financial products in cooperation or competition with the formal financial institutions (Aron, 2017). Due to its rapid spread in developed and developing countries, Aron (2017) attributed to mobile money a feature of “Leapfrogging” the provision of conventional banking services to indicate that new technologies of mobile phones respond to the problems of weak institutional infrastructure and high operational cost of formal banking.

Aron (2017) defined mobile money as “financial transaction services potentially available to anyone owning a mobile phone, including the under-banked and unbanked global poor who are not a profitable target for commercial banks”. For him, it is sufficient for an individual to install a mobile phone application on a SIM card and set up an electronic money account with the mobile money services provider, and deposit cash in exchange for electronic money. Hence, the electronic money can be saved or withdrawn as cash, or transferred to others domestically or internationally with no formal bank account requirement. Previous research in the usage of mobile money services identified five main usages of mobile money and these include domestic remittances services, business usage and payment platforms, government payments, microcredit repayments and micro-insurance premium collection and business purposes (Heyer & Mas, 2009; Aron, 2017).

b) Domestic and international remittance services

These are the primary preference of mobile money users on which a number of telecommunication companies base for launching mobile money business. Heyer and Mas (2009), noted that “Safaricom based the initial launch of its M-PESA service on the *-send money home-* proposition, even though it also allows the user to buy and send airtime, store value and, more recently, to pay bills”. Jack and Suri (2011) have also noted that remittance services still dominate amongst mobile money services in East Africa. Remittance services include domestic remittances and international remittances. Domestic remittances occur between urban and rural areas whereby people migrated

from rural to urban setting for better employment opportunities send money back home to support their relatives to meet their daily subsistence needs. Domestic remittances might also be driven by students schooling away from home particularly in some countries where there is a lack of school or low-quality school in rural settings which oblige some wealthier parents to send their children in urban areas for getting better quality schooling opportunities (Heyer & Mas, 2009).

For the concern of international money transfer, mobile money is at its embryonic stage. However, the World Bank (2013) noted that the cost of these international transfers is very high. It varies from 6.6 to 8.9% in general and it exceeds 12% for Sub-Saharan countries. Aron (2017) noted that Safaricom, a Telecommunication Company of Kenya, was the first to enter in this business. This was done in late 2014, when Safaricom announced a partnership with Money-gram. Aron (2017) explained that the enthusiasm to promote the international money transfer is also growing among mobile money partners whereby in late April 2015, Vodafone Group and MTN Group announced that they would interconnect their mobile money services for enabling affordable international remittances between M-PESA customers in Kenya, Tanzania, Democratic Republic of Congo and Mozambique, and MTN mobile money customers in Uganda, Rwanda and Zambia. The importance of money transfer has also been highlighted by Sife, Kiondo and Lyimo-Macha (2010), who indicated that out of 293 respondents in Morogoro, Tanzania; a half (50.1%) of them reported that mobile usage had enhanced their abilities in sending and receiving money and Batista and Vicente (2013) found that mobile money services contributed to increased marginal willingness to send remittances in Mozambique. In addition to that, Munyegera and Matsumoto (2016) proved that households with access to mobile money services are more likely to receive remittances more frequently and receive higher value of remittances than non-users.

As noted by Taylor, Baptiste and Horst (2011) the importance of mobile money should not be limited to remittance services. They pointed out the relationship between different groups of people and their business activities through the circulation of money in the process of economic empowerment. In explaining that mobile money services should not be underestimated in the process of speeding the circulation of money, Taylor et al., (2011) declared that mobile money was the best solution to the burdensome and time-consuming processes of the financial system in Haiti. For them, employees are no longer waiting for getting cash for the work they have done,

retailers are receiving the money of the products they have sold without delay. In addition, employee's productivity has been increased due to reduced waiting time that was spend by the employees on bank lines for making different bank transaction during working hours. That is why Taylor et al., (2011) argue that mobile money's contribution to economic empowerment is more than payments or transfers between relatives, but also a vertical integration of Haiti's socio-economic strata.

Similar to other countries where mobile money business has been introduced, the core products of mobile money businesses in Rwanda are based on money transfer between phone subscribers through a network of cash-in and cash-out agents. In its annual report 2013, NBR shows that mobile money businesses have contributed significantly to the overall development of the country and rural areas in particular (NBR, 2013). The same report shows that in June 2013, more than 2 million people (around 20% of the total population) were registered as mobile money users. In total the transactions exceeded 21 million in June 2013 with a total value of 200 million USD. This is an indication that mobile money businesses have an opportunity to contribute to the development of Rwanda and rural areas in particular, because they facilitate financial services and enhance the pace of economic growth through increased transactions.

c) Bill and government payments

These constitute another major option of operation for mobile money, particularly for countries with developed infrastructure (Heyer & Mas, 2009). In their studies, Heyer and Mas (2009) have explained how in Nigeria, the use of mobile money services help people to pay utility bills like water and electricity consumption and TV among others. They also help the government to collect revenue for services like market fees, land rates/rental and other fees, licenses and contributions into government national health and social security funds. On the subject of government and usage of mobile money payment, Aron (2017) mentioned that governments can use mobile money to pay the wages of his officials; the national revenue authority can accept payments for taxes, licenses and fines; the municipalities can accept parking payments; and public transport can be paid for by mobile money. In addition to that, mobile money payment can be used by the government for the delivery of social welfare or aid payments.

d) Microcredit repayments and micro-insurance premium collections

The financial innovation of mobile money facilitated access to the financial products of the banking and insurance sectors, enhancing “formal” financial inclusion. Aron (2017) noted that for one to have access to the loan services he must be in possession of the electronic mobile money accounts that is linked with bank accounts. The products are accessed on the condition of interest-bearing savings accounts and small loans, and to micro-insurance products. On that point, Aron gave an example of Kenya, M-Shwari that offers a savings and loan product from the mobile phone by M-PESA users. However, the usage of these services is very limited as they require a high level of sophistication on the part of the IT systems of microfinance institutions, which may not always be available due to small and medium scale of operation of the majority of MFIs and insurance companies (Heyer & Mas, 2009). The insurance services are also provided through the channels of mobile money and the life insurance that include funeral expenses was identified to the most prominent product by Pénicaud and Katakam (2014 cited in Aron, 2017). Penicaud and Katakam indicated that the remaining quarter provide health insurance, accident coverage, or agricultural insurance. Aron (2017) added that mobile money was used in Kenya from January 2014 to offer affordable health micro-insurance product linked with M-PESA, including funeral expenses.

2.2 Gender considerations within the benefits of mobile money services

Mobile money was believed to reduce the existing gender inequality by empowering women as the household members who have less bargaining power (Jack & Suri, 2011). In their study on how mobile money transfers affect intra-household power relations in Nigeria, Aker et al (2016) identified four main factors that contribute to the increased women’s bargaining power namely the privacy of a cash transfer, the ability to provide for the welfare of the family, reduced cost and time saved for additional productive activities. Although women had a chance to be financially empowered by mobile money services, previous researches pointed out that there are potential constraints that limit their access to this opportunity (Hyde-Clare, Ngcongco & Mnisi, 2014; InterMedia, 2014). The general constraint was limited ownership of mobile phone for being registered as mobile money user (InterMedia, 2013, InterMedia, 2014, Hyde-Clare, Ngcongco & Mnisi, 2014). For example, in Uganda, InterMedia (2013) noted that the rate of mobile phone ownership was 21% higher for men than women and this resulted into a gender gap among female and male registered as users of mobile money services. Similarly, in Rwanda, the study of

Blumenstock and Eagle (2012) reported a gender difference in mobile phone ownership and usage whereby three persons were found to share one phone and that in most cases the owners were males. The other problem that was identified to weaken women's opportunities in the mobile money services was the historical gender stereotypes that continue to hold women back in the exploitation of the new technologies even when access is granted (Hyde-Clare, Ngcongco & Mnisi, 2014). Their findings proved that female and male respondents have similar understandings that females are less competent than males in technologies.

The motivations that lead males and females to use mobile money services are different. On one hand, females are more likely to use mobile money services for social reasons such as the purchase of airtime, sending or receiving remittances; on the other hand, males are more likely to use mobile money services for economic and business reasons (Kusimba et al., 2018). For example, the findings of Kusimba et al., (2018) indicated that when the reason of using mobile money was to help friends and relatives, females occupied the 1st position (69 out of 78 female respondents against 59 out of 77 male respondents). However, when the reason of using mobile money services was the business, men dominated the usage.

In the Rwandan context, the number of mobile money subscribers has been increasing year by year. For instance, the number of subscribers in 2018 was 1,845,584 and in 2020, it has increased to 1,854,424 (NBR, 2018 & NBR, 2020). Next to this, the FinScope Survey Rwanda Gender Report (2020), show a gap of 8% between registered mobile money users by women compared to men, where women are 55% while men are 63%. In the same line, females who use mobile money services at least once a week are 43% while males who use them are 53%, implying a gender gap of 10%.

Although the existing literature shows that the number of mobile money users has been increasing in Rwanda, there is a little knowledge about the contribution of these services on the economic empowerment of mobile money users. Hence, there is a need to assess the extent to which females and males benefit from the use of mobile money services and the contribution of this new technology on their livelihoods.

3. Research Methods

Identification of research participants

A cross-sectional survey design was employed in this study. The targeted population was composed of Airtel money users located in Huye District within four Administrative Sectors: Mbazi, Gishamvu, Huye and Mukura. These four sectors have been selected purposively based on the recommendation by the Airtel Money officials at Huye District, who identified them as the ones which have a high number of mobile money services users in the District. Active Airtel money users in the study area were estimated at 1135 as of January 2020 (Airtel database). Using the table of Krejcie and Morgan (1970), we derived the sample size of 285 respondents (131 females and 154 males) from a total of 1135 of active users of Airtel Mobile money.

Data collection

This study used the survey questionnaire for collecting quantitative data on a sample of 285 respondents but only 280 respondents provided complete information that were used in the empirical analysis. The simple random sampling procedure was used to select respondents for this study. Two focus group discussions (one of 8 females and one of 7 males) were purposively selected basing on the inclusion criteria of females and males from the four sectors and used to collect qualitative data.

Data analysis

Quantitative data was analysed using SPSS 18.0 to perform descriptive statistics. Qualitative data was analysed using thematic analysis approach. Data was analysed focusing on the two key themes including the usage of mobile money services and the economic empowerment of females and males' mobile money users. Some important sub-themes emerged progressively from the analysis: money transfer, mobile financial services and gain from time and transport cost saved due to mobile money payment.

The characteristics of the sample are presented in table 1 below:

Table 1: Demographic characteristics of respondents

Demographic Characteristics		Frequency	Percent	Cumulative Percent
Sex	Male	150	53.6	53.6
	Female	130	46.4	100
	Total	280	100.0	
Age group	Below 21 years	11	3.9	3.9
	21-24	83	29.6	33.6
	25-34	109	38.9	72.5
	35-44	58	20.7	93.2
	45 and above	19	6.8	100.0
	Total	280	100.0	
Marital status	single	121	43.2	43.2
	married	40	14.3	57.5
	widow	75	26.8	84.3
	separated	44	15.7	100.0
	Total	80	100.0	

Source: Primary data (January 2020)

Table 1 shows that the sample was constituted by more men (53.6%) than women (46.4%) with few adult people (6.8%). Considering the marital status, single predominated with 43.2% followed by widows (26.8%).

4. Findings and Discussion

4.1 Effect of mobile money services on the income of females and male users

The effect of mobile money services on the income of females and males was investigated through three aspects: money transfer, mobile financial services and gain from time and transport cost saved due to mobile money payment. Table 2 below contains the findings.

Table 2: Monthly income gained from mobile money services

Monthly income gained from	Monthly income	Male		Female	
		Frequency	Percent	Frequency	Percent
Money transfer	1-10000	23	15.3	20	15.4
	10001-30000	54	36.0	53	40.8
	30001-50000	33	22.0	31	23.8
	50001-70000	26	17.3	16	12.3
	above 70000	14	9.3	10	7.7
	Total		150	100.0	130
Mobile financial services	1-10000	27	18.0	25	19.2
	10001-30000	45	30.0	41	31.5
	30001-50000	29	19.3	28	21.5
	50001-70000	41	27.3	32	24.6
	above 70000	8	5.3	4	3.1
	Total		150	100.0	130
Monthly gain from transport cost and time saved due to mobile money payment	1-10000	28	18.7	22	16.9
	10001-30000	28	18.7	26	20.0
	30001-50000	36	24.0	52	40.0
	50001-70000	35	23.3	16	12.3
	above 70000	23	15.3	14	10.8
	Total		150	100	130

Source: primary data

The results in this table show the percentage of females and males on the income gained. The percentage is quite equal for small amounts ranging from Rwf 50,000 and below. However, males dominate in all the three sources of income when the amount is above Rwf 50,000. This finding is supported by the study of Kusimba et al., (2018) who revealed that females are more likely to use mobile money services for social reasons such as the purchase of airtime, sending or receiving remittances. Males are more likely to use mobile money services for economic and business reasons. In the same line, the FinScope Survey Rwanda Gender Report (2020) revealed various constraints that prevent females to use mobile money services. These include culture norms and beliefs, lower level of income and education, lack of decision-making power, lack of job opportunities among others. The above discussion implies that when females get the opportunity to use mobile money services, they are limited to small amounts for social events that confirm the findings from Table 2.

4.2 The Economic empowerment of mobile money services

The level of increase in the economic decision making and the level of promoting household welfare were used to assess economic empowerment of respondents. Both female and male respondents were asked to rate different items of these two indicators using a five-point Likert type scale (1= Very Low; 2 = Low; 3 = Moderate; 4 = High; 5 = Very High). The results are presented in table 3 below:

Table 3: The Economic empowerment of female and male mobile money users

Level of increase		Very low	Low	moderate	High	very high	Total
Indicators of economic empowerment							
Economic decision making							
My ability to create new job has increased	Male	2.0%	11.3%	18.7%	48.7%	19.3%	100.0%
	Female	3.8%	12.3%	30.0%	41.5%	12.3%	100.0%
Access to financial services	Male	4.0%	28.0%	25.3%	17.3%	25.3%	100.0%
	Female	3.1%	31.5%	20.8%	33.8%	10.8%	100.0%
My ability to contribute to household expenses	Male	8.7%	21.3%	28.0%	18.7%	23.3%	100.0%
	Female	16.2%	15.4%	21.5%	28.5%	18.5%	100.0%
My ability to provide social contributions	Male	7.3%	18.0%	24.0%	40.7%	10.0%	100.0%
	Female	20.8%	17.7%	30.0%	16.9%	14.6%	100.0%
My ability to buy a new asset	Male	7.3%	30.0%	33.3%	20.7%	8.7%	100.0%
	Female	11.5%	11.5%	35.4%	33.1%	8.5%	100.0%
My ability to buy a new mobile phone	Male	16.7%	11.3%	18.7%	20.7%	32.7%	100.0%
	Female	19.2%	20.8%	16.9%	20.8%	22.3%	100.0%
Household welfare							
Access to better education for the family members	Male	8.7%	8.0%	21.3%	42.0%	20.0%	100.0%
	Female	6.2%	7.7%	32.3%	38.5%	15.4%	100.0%
Access to health insurance for the family members	Male	3.3%	24.0%	35.3%	23.3%	14.0%	100.0%
	Female	2.3%	27.7%	42.3%	20.0%	7.7%	100.0%
Access to better nutritional intake	Male	3.3%	17.3%	30.0%	28.7%	20.7%	100.0%
	Female	8.5%	21.5%	16.9%	33.8%	19.2%	100.0%
Access to good shelter	Male	9.3%	10.7%	25.3%	38.7%	16.0%	100.0%
	Female	12.3%	16.9%	26.9%	23.8%	20.0%	100.0%
Access to transport facilities	Male	6.0%	20.7%	16.0%	25.3%	32.0%	100.0%
	Female	16.2%	16.2%	33.1%	14.6%	20.0%	100.0%
Access to communication facilities	Male	11.5%	11.5%	22.3%	39.2%	15.4%	100.0%
	Female	10.3%	20.5%	24.7%	30.1%	14.4%	100.0%

Source: Primary data.

The results in table 3 indicate that the majority of female and male respondents noted that they achieved either a moderate, high or very high level of increase in various dimensions of economic

empowerment and welfare of the family. Given that the lowest level indicated by the majority of respondents explains a positive contribution in a five-point Likert type scale, as it is above a cut-off point of 2.5, it implies that mobile money services have contributed positively to the economic empowerment of females and males in Huye District.

The above findings were supported by the information provided by mobile money users during focus group discussion on the question regarding the importance of mobile money services towards their contribution to rural development. It was highlighted that Airtel offers an opportunity for job creation. One young boy doing mobile money services as an agent of Airtel money said that from the beginning of his business as agent, he had managed to live without aid from his parents and relatives. Instead, he was able to contribute to family expenses and that he had been able to buy land only after 14 months of doing that business.

Another male respondent highlighted that although some people neglect this business of mobile money, it helps people to develop their economy. He said that he decided to enter this business after losing the opportunity to continue further studies in higher learning institutions. He mentioned that he was planning to pay his university studies as a private student from the income of mobile money services in the academic year 2019. Two women in the focus group discussion explained their experiences about mobile money services in their daily life. They said that such services were reliable channels for the support they were receiving from their children not living in the households, and remittances from other family members abroad. The recipients might easily withdraw the money from the nearest agents in order to satisfy their basic needs on food for their families and school-related expenses, such as books and clothes for their children.

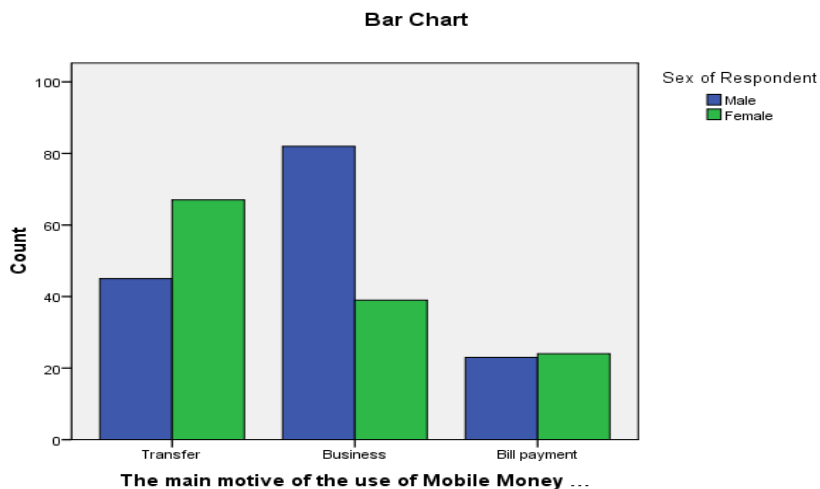
The above study findings are in line with those of Sife, Kiondo and Lyimo-Macha (2010) who found that mobile money services helped people in Morogoro to reduce and save the cost of transport and time spent in doing their daily activities. This efficiency in their businesses activities resulted into increased income. In addition to that, Munyegera and Matsumoto (2016) argue that mobile money users are likely to increase the savings of their users due to the possibility of receiving remittances more frequently and receiving higher values of remittances relative to non-users. Moreover, from the experience of developing countries, researchers such as Horst and Miller (2005) and Paragas (2017) have found out that mobile money services contribute to poverty

reduction in least developed countries by increasing income for micro-entrepreneurs. Donovan (2012) showed that mobile money is a powerful tool for promoting and expanding the financial inclusion and improving the development of the poor in rural areas. Kiiti and Mutinda (2011) have further emphasized the importance of M-PESA in promoting rural development and poverty alleviation. They noted that there was strong support for M-PESA as a service that promotes more economic transactions and job creation in the rural areas of Eastern Kenya.

4.3 Gendered patterns in the utilization of mobile money services in Huye District

To understand the motives of using mobile money services, respondents were asked to specify one reason amongst the three (transfer, business and bill payment). The views of respondents are captured in the figure 1 below:

Figure 1: Females and males' usage of mobile money services in Huye District



Source: Primary data

From the figure 1 above, it can be observed that females and males have different interests regarding the usage of mobile money services. Whereas the majority of females use mobile money services for sending or receiving money from friends and relatives, the majority of men use it for business purposes. This finding substantiates with qualitative data of the focus group discussions. Two women in the focus group discussion revealed that mobile money services were a useful channel for transfer purposes. One said that she was able to use mobile money services to send money to her sister who assists her in managing her agricultural activities and looks after her mother. She also uses the services to send pocket money to her daughter who does her bachelors'

studies in Finance and Banking at the University of Rwanda. Another female said that she was able to receive upkeep from her daughters and grandchildren who help her to maintain her farm.

In the focus group discussion with men, urban men traders stated that they send goods or provide services to rural retailers and then, these retailers pay them back via mobile money, thereby contributing to a strong rural-urban flow. These findings corroborate the findings of researchers such as Hyde-Clare, Ngcongco and Minisi (2014) and Kusimba et al., (2013) who consider that females are more likely to use mobile money services for social reasons while males are more likely to use mobile money services for economic and business reasons.

Patriarchal norms of the Rwandan society shape the use of mobile money services to gender roles that are ascribed to females and males. On one hand, women use mobile money mostly for either sending or receiving money as a financial support that can help them to perform better their reproductive roles of caring for their families. On the other hand, men use mobile money services to support their main role as family bread winners through income generating activities. These cultural habits or obstacles limit women's ability to benefit accordingly from various packages provided by mobile money services for economic empowerment as men do.

5. Conclusion

This study investigated the effect of Airtel money services to the economic empowerment of females and males in Huye District. The study findings revealed that Airtel money services helped female and male users to increase their economic empowerment through increased income, increase decision making and household welfare. However, the choice of female and male respondents about the usage of Airtel money services was found to be more oriented by their social responsibilities whereby females are more concerned by the social activities and males' choices are influenced by the business purposes. Therefore, Rwanda as a country that wants to promote gender equality in all aspects of life should design policies and strategies that can help to bridge this gender gap in mobile money usage.

This research presents two main limitations. First, it employed a cross-sectional survey to gather empirical data and this data is limited in a period of time. We suggested that future studies should

conduct a longitudinal study on this topic to observe any variations in results. Second, it focused on one company (Airtel money) which provides mobile money services in Huye District. We recommend to other researchers interested in the matter to extend the scope of the study and include other companies offering the same services in Rwanda. A countrywide comparative study between mobile money services users and non-users should be undertaken to test whether adoption or non-adoption of these mobile money services has differential effects.

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