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MOBILES FOR DEVELOPMENT (M4D) AND HUMAN AND SOCIAL DEVELOPMENT OF MOBILE MONEY AGENTS

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ABSTRACT: The aim of this research was to ascertain how the mobile technologies have impacted on the lives of agents in the context of socio-economic development. It sought to study the welfare and development of mobile money agents. The study adopted a descriptive survey design. Population comprised of mobile money agents from urban and rural areas. A sample of 60 agents was randomly selected for the study. 30 from each group respectively. Purposive sampling was used to select the agents. The study was based on data collected through questionnaires and interviews structured to meet the objectives of the study. The questions were both open ended and closed ended. The process of data analysis involved data clean up and explanation. Respondents in both rural and urban areas held the same perception that the coming in of mobile technology through Ecocash has brought to them benefits towards their social and economic welfare. The study confirmed that there were significant differences in commission given to agents in urban and rural areas.

KEY WORDS: Ecocash, mobile money, social development, mobile for development

INTRODUCTION

Mobile money which is simply the ability for cell phone users to transfer money from one subscriber to another as well as withdrawing cash from appointed mobile money agents has greatly helped Zimbabwean people whose country is facing liquidity challenges through facilitating transactions in the financial sector without the need for bank account and queues (1). Since inception of Ecocash in Zimbabwe in 2011, there have been more than 2.3 million Zimbabweans who have registered for Ecocash mobile money accounts, outnumbering all of Zimbabwe's traditional bank accounts combined. Over 1 million of these accounts are active and push US$200 million of volume over the Ecocash platform every month (Levin et al, 2012). To facilitate the movement of money from one person to the other there is the use of an agent network through people, automatic teller machines (ATMs), branches) that facilitates cash-in (converting cash into mobile money) and cash-out (issuing cash on demand) to afford convertibility between mobile money and cash (1). Agents earn commission on various transactions carried out by mobile money users. Econet's EcoCash has an agent network of over 500 countrywide making it the largest mobile money transfer institution in Zimbabwe. However, the relationship between ICT penetration and development is not so straightforward and simple (2). Beyond the macro-economic indicators, evidence suggests the enhanced communication and information flows that mobiles provide have significant impact on users' livelihoods, especially those most vulnerable and traditionally hard-to-reach (3). Therefore M4D has become essential for billions of those in less developed countries, transforming their lives through the reduction in vulnerability and increase opportunities, improve social empowerment, reduce the need to undertake costly and sometimes dangerous travel, increase access to health and education services, as well as create more employment and business opportunities (4,5). Thus from the assertion by (Morawczynski 2011) of no clear cut relationship between ICT penetration and development, therefore this study intends to determine the level of human and social development of the agents employed by Econet.

RESEARCH FOCUS

The study will answer the following research questions:

- What is the nature and extent of mobile money transfer's effect on the welfare money transfer agents in Masvingo urban and Masvingo rural?
- Is there any significant variability in income levels between agents in rural and urban areas in Masvingo?
- Is there any significant relationship between mobile penetration and human development between rural and urban areas?

MATERIALS AND METHODS

A descriptive survey design was used because the study required the collection of data that were descriptive in nature. Questionnaires and face to face interviews were used to obtain primary data from the Ecocash agents in Masvingo urban and rural. The descriptive survey research design was

ideal as it managed to collect data from the respondents in their natural settings and also used quantitative measures which can be collected through the use of a questionnaire method (6).

The target population to be used in this study includes all the Ecocash money transfer agents in Masvingo urban and rural. Therefore specifically for this study, population will be all the Ecocash agents that are operational in Masvingo urban and rural areas. The population of registered Ecocash agents in masvingo urban and rural was obtained from https://www.econet.co.zw/ecocash/agent-locations?field_province_tid=1975&field_district_tid=1872&field_location_tid=All and using the filter method which made the researcher choose by province by district and location. The total population will be 3198 Ecocash agents in Masvingo. The sample sizes are going to be split from the two sub-populations. The urban agents had a bigger population and as such proportionally more respondents was chosen, as such 30 agents was selected and the fewer rural Ecocash agents 30 agents were selected. Thus in total, the sample size that was used in this study was 60. Non-probability sampling through purposive sampling was used. Questionnaires were given to Econet money transfer agents whilst the key informant interviews were administered to employees at Econet and the department responsible for technology

The Statistical Package for Social Sciences (SPSS Version 18) for data analysis was used for analysis. Data collected through questionnaires will be coded and entered into SPSS for analysis. Data analysis will involve the use of statistical techniques, which enabled interpretation of the results in relation to the research problem. Recurring themes will be identified from the KII and these will be used to support or contradict data collected from questionnaires.

STATISTICAL ANALYSIS

i. Perception Of Ecocash Agents

There were variations in the perception of Ecocash agents pertaining the effects of technology on their social and economic welfare. In this regard, Most of the respondents in both rural (50%) and urban areas (43%) held the same perception that the coming in of mobile technology through Ecocash has brought to them benefits towards their social and economic welfare. There were agents who indicated that to a lesser extent the mobile technology had an effect on their welfare (10% urban and 20% rural). The increase perception of the agents in rural areas is due to the low amounts of revenue that they generate. Their perception can be also linked to the fact that about 30% of the respondents have one year in operation as Ecocash agents as such there is no much realization of commission to have an impact on their socio-economic welfare. Surprisingly there were also respondents who indicated that mobile technology had no effect on their socio-economic welfare in both rural and urban areas.

TABLE 1: Perception of Ecocash agents on effect of technology on welfare

Perception	Urban	Rural
Lesser extent	10	20
Neutral	37	13
Larger extent	43	50
No effect	10	17

ii. Amounts Generated

From table 2 it can be noted that the average amounts generated in the study areas were different and generally agents within the rural areas generated more revenue through commissions. The minimum amount of commission generated were lowest in the rural areas (USD150.00) whilst the urban areas generated USD 200.00. However in order to test whether the amounts generated were statistically different from each other there was need to perform relevant statistical test. As data followed a normal distribution, there was need to adopt an independent sample t-test as the respondents were selected from two different areas (rural vs urban).

TABLE 2: Descriptive statistics for the amounts generated last month

Statistic	Urban	Rural
Mean	870.83	620.37
Standard Error	98.81	60.17
Median	850.00	600.00
Standard Deviation	484.08	312.66
Range	1400.00	1150.00
Minimum	200.00	150.00
Maximum	1600.00	1300.00
Sum	20900.00	16750.00

iii. Commission Received

From the table above, it can be observed that the commission received by Ecocash agents in the urban areas was higher than that awarded to their rural counterparts. However there was need to statistically quantify the differences in commission given to the Ecocash agents and determine if any significance appeared. Thus the results of the study indicated that there were significant differences in the amount of commission given to agents in rural and urban areas ($t= 2.523$, $df=23$, $p= 0.009$). Thus the knowledge of the differences in the commission received has an effect in understanding the spatial variations on the effects of technology on the socio-welfare of Ecocash agents and as such technologies are failing to bridge the technological and social divide between agents in urban and rural areas.

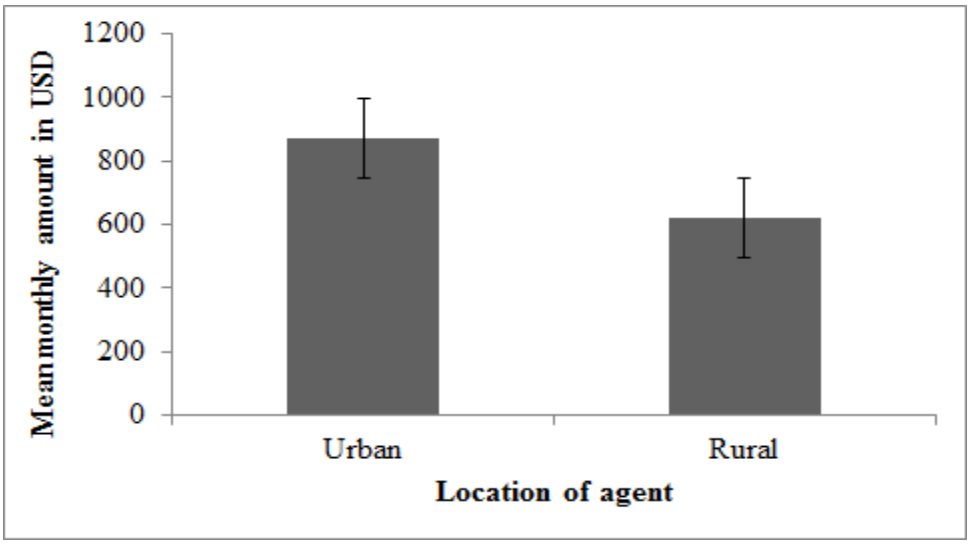

FIGURE 1: Variability in monthly income between rural and urban areas

The findings in this study tend to contradict the assertion by the ICT policy of Zimbabwe in 2015 which indicated that uptake and use of ICTs has greatly increased in recent years with the high uptake seeing the "digital divide" between rural and urban areas being reduced dramatically (7). The reduction in the 'digital divide' rapid and robust infrastructural development and rejuvenation has enabled the development and availability of a plethora of e-services, which consumers have embraced as easier means to communicate and transact between person to person, person to business and business to business.

The official at Masvingo Econet indicated that there is variation in the amounts that are generated by agents in rural and urban areas. The official stated the following:

Most of the urban agents receive a lot of commission due to the fact that most of the remittances are sent from these towns and the rural areas there is less much commission being generated and somehow the differences in the commission will have effects on the changes in their welfare.

iv. Perceptions on change of income

There were different perceptions on the change of income levels by the Ecocash agents in both rural and urban areas (Table 2). The dominant perception however for both urban and rural agents was that the introduction of mobile technology had led to an increase in their incomes (77% in the urban areas and 53% in the rural areas. The decrease in the difference between those who saw the effect and those who did not in the rural areas can thus be attributed in the low commissions that were received compared to their urban counterparts (Figure 1).

Findings in this study are in line with findings by Steinmueller (2000) who indicated that there were robust positive results between use of ICT especially mainly mobile phones for information search and increased income among farmers. ICTs are more accessible than other productive technologies, and can more easily reach the poorest segments in the most deprived nations leading to developmental leapfrogging (8) implying that resource poor countries can reap the benefits of this new era without having to progress through the previous stages of development.

A councilor in Masvingo urban indicated that there has been a marked change in the welfare of these Ecocash agents here in Masvingo and stated the following:

There have greatly improved their lives due to commission they get from Econet especially the ones that started in 2011 on the inception of Ecocash. Some of them have expanded their business and some have bought cars. As such this is a technology which has transformed the lives of many agents.

v. Uses Of The Money Generated

From the study it can be noted that 97% of the respondents within urban areas owned a cellphone and only 3% of the Ecocash agents owned a laptop before becoming agents for Econet. A similar scenario was also common in rural areas as 90% of the respondents owned a cellphone before becoming Eccocash agents. In the rural others respondents indicated that they owned goats, sheep, cattle and cars before becoming Ecocash agents. However there was a change in property or asset ownership as a result of becoming an Ecocash agent. In this case, multiple responses were sought by the researcher and accordingly, 3% indicated that they know have phones, 17% indicated that after becoming agents they had TV sets, 33% indicated that they bought cars, another 17% bought laptops, 50% indicated that they expanded their own businesses, 30% indicated that they can pay bills and school fees. In the rural areas there were changes from the uses of money generated from being an Ecocash agent and similarities are on buying rural residential stands (25%), expansion of business (40%), bought cars 40% and 13% indicated that they used it to pay school fees and finally 40% indicated that they used the income to support their families. The findings from this study are similar with those done for MPESA in Kenya by (2) who indicated that increased household net incomes which contributes to greater access to food (hence makes the household food secure), increased income boosts household savings which are used to smooth future shocks and improvement in household income can also be invested in education (especially payment of school and college fees) thus resulting in increased stocks of future human capital in the household (9). All these reflect in improves socio- economic welfare of the farming communities. Focusing on M-PESA, it was shown that the mobile money offered a great opportunity for people to improve their lives through saving and productive investments (10).

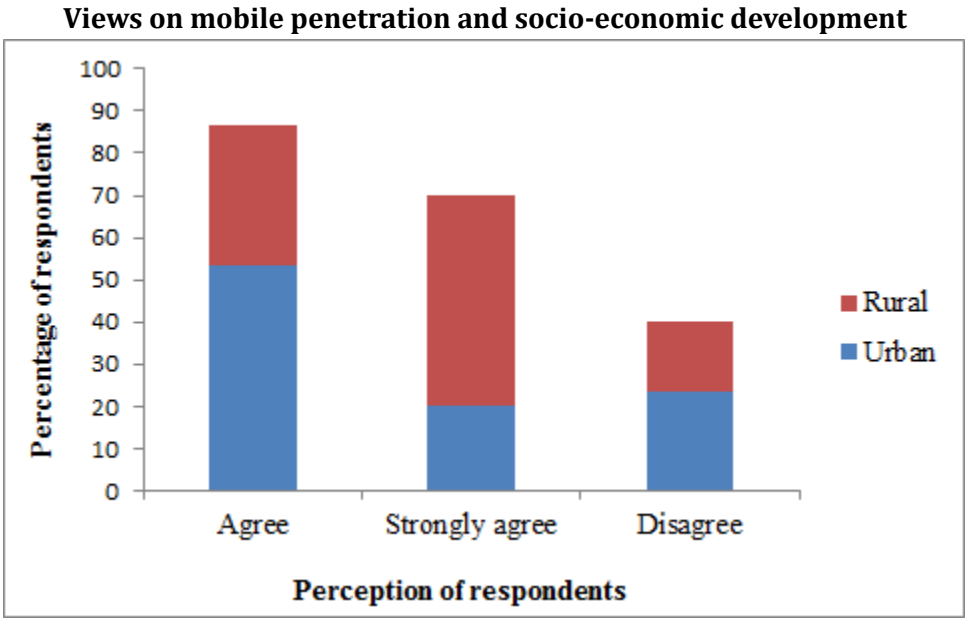

Figure 2: Perception of respondents on mobile penetration and human development

From figure 2, it can be noted that the respondents were of the opinion that the increase in mobile penetration in Zimbabwe led to an increase in human development. Thus human development was noted by the respondents as their ability to buy cars, paying fees and able to support and caring of their families (food and medical provision). Results from this study can be supported by (Labonne and Chase 2009) in a study carried out in the Philippines found out that purchasing a mobile phone is associated with higher growth rates of incomes, in the range of 11–17 percent, as measured through consumption (11). The case of M-PESA illustrates that ICTs can grow rapidly within resource poor communities without the help of development practitioners and expansion has been given emphasis under the premise that ICTs are vital "enablers" not only for economic growth but also social development (Mas and Morawczynski 2009). In Kenya, M-PESA and other M4D initiatives have shown, mobiles can have a multiplier effect, improving the impact of development efforts when M4D applications, content and services are employed and multiplier effect will be critically important and highly beneficial for the most vulnerable (12). In the Kenyan study, more than 50% of the respondents from the urban areas indicated that increase in mobile penetration led to human development. However there were respondents from both urban and rural areas who indicated that there was no link between mobile penetration and socio-economic development of the people (Mas and Morawczynski 2009).

Based on the interviews from the official at Econet the following was stated supporting the results from questionnaire:

There have been high levels of mobile penetration in Zimbabwe since post 2008 and this can be related to the socio-economic development of not only the agents but people in both urban and rural areas as there is remittance of money for uses such as medication, payment of fees and food.

An official from the Ministry of Communication and Technology based in Masvingo indicated the following:

There is a high mobile penetration from both mobile operators in Zimbabwe and these we are anticipating to be triggering socio-economic development and at the same time reducing the digital divide between the rural and urban areas.

CONCLUSIONS

The spatial variations in terms of times of operation of agents between urban and rural areas of Masvingo and urban areas had more agents with two (2) and five (5) years in operation than those in the rural areas. Respondents in both rural (50%) and urban areas (43%) held the same perception that the coming in of mobile technology through Ecocash has brought to them benefits towards their social and economic welfare.

From the study it can be confirmed that there were significant differences in the amount of commission given to agents in rural and urban areas ($t= 2.523$, $df =23$, $p= 0.009$). In this case it can be stated that agents in urban areas have more commission than those in rural areas in terms of commission. Thus the knowledge of the differences in the commission received has an effect in understanding the spatial variations on the effects of technology on the socio-welfare of Ecocash agents and as such technologies are failing to bridge the technological and social divide between agents in urban and rural areas.

The dominant perception for both urban and rural agents was that the introduction of mobile technology had led to an increase in their incomes (77% in the urban areas and 53% in the rural areas. There were differences in the strength of these perceptions with agents in the urban areas being more than those in rural areas.

Before the engagement of respondents as Ecocash agents the dominant item owned was just a cellphone and it can thus be noted the introduction of mobile technology has led to the socio-economic transformation of the welfare of agents. The socio-economic transformation was noted through owning assets such as residential stands, cars and ability to buy food, payment of fees and also the expansion of business entities.

From the research findings it can be concluded the increase in mobile penetration in Zimbabwe led to an increase in human development. Thus human development was noted by the respondents as their ability to buy cars, paying fees and able to support and caring of their families (food and medical provision).

RECOMMENDATIONS

It was noted that there was variation in terms of income between rural and urban areas. Therefore the following recommendations are going to be made:

- The study identified that there are differences in monetary benefits between rural and urban areas, it can be recommended that comparison is made to determine the effects on social and economic welfare based on a before and after becoming an Ecocash agent scenario. This makes it possible for policy makers to safely conclude on the effects of technology on reducing the digital divide gap.
- Since the sample size used in this study was small, the study was also carried out at a micro level and, thus it is recommended that a similar study can be carried out covering the whole province with a large sample size such that there is capturing of variability in the effects of technology on the welfare of money transfer agents.
- The study used a single case study as Ecocash is the biggest money transfer organisation in Zimbabwe and as such there is need for future studies to incorporate other money transfer organisations such as Telecash and One Wallet in order to capture the diversity and variability of the use of technology on the agents across all networks.

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