

Table 4.5: Secondary features of initial adoption and use of a mobile phone

Initial Adoption Reason	Gender Distribution				Total Respondents	
	Males		Females			
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Financial transactions only	7	14%	5	11%	12	13%
kinship maintenance only	5	10%	8	17%	13	14%
Agricultural based purposes only	6	12%	4	9%	10	11%
Entertainment only	2	4%	7	15%	9	9%
Financial transactions and kinship maintenance	8	16%	15	33%	23	24%
Financial transactions and Agricultural based purposes	22	44%	7	15%	29	29%
Totals	50	100%	46	100%	96	100%

Source: Author’s findings

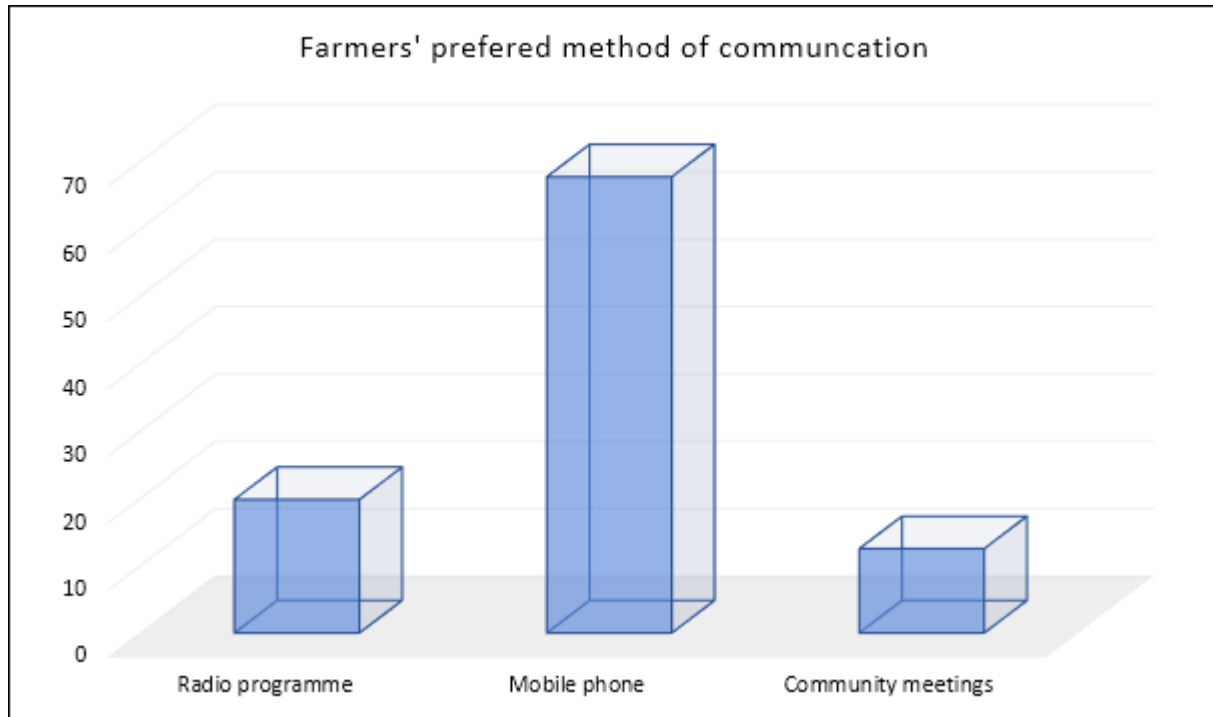
4.5 Associated impact of the mobile device on the rural livelihood and farmers.

One of the objectives of this research was to determine the potential impacts that the mobilephone had on the rural livelihood and farmers in particular.

Preferred method of communication

Sixty-seven and a half percent of the respondents showed that they preferred a mobile phone as a means of communication. One of the farmers indicated the instant dialogue platform that is offered by the device has improved their way of doing business. Information required for anything is just a call away or an instant message away. Not only does the mobile phone affect their day to day farming business but their rural livelihood has been improved as well. With a mobile phone, one can check on siblings far away and maintain kinship. Another respondent indicated that communication via a mobile device is easy to manage and administer as compared to radio programs and community meetings which consume a lot of coordination time.

Figure 13: Farmers' preferred method of communication



Source: Author's findings

Approximately twenty percent of the respondents indicated that they prefer radio programs as a way of communication between farmers and other stakeholders. The reason being that there is no major costs in obtaining the information, one just has to tune to the desired frequency and channel to access the information. Furthermore, more information can be obtained by just mere listening without even the participation of the listeners. However, other respondents cited that the inability to flexibly question the presenters affects the quality of the information that is broadcasted. The information will be more of presenter's opinions with little of farmers' participation as airtime is a valuable resource during broadcasting.

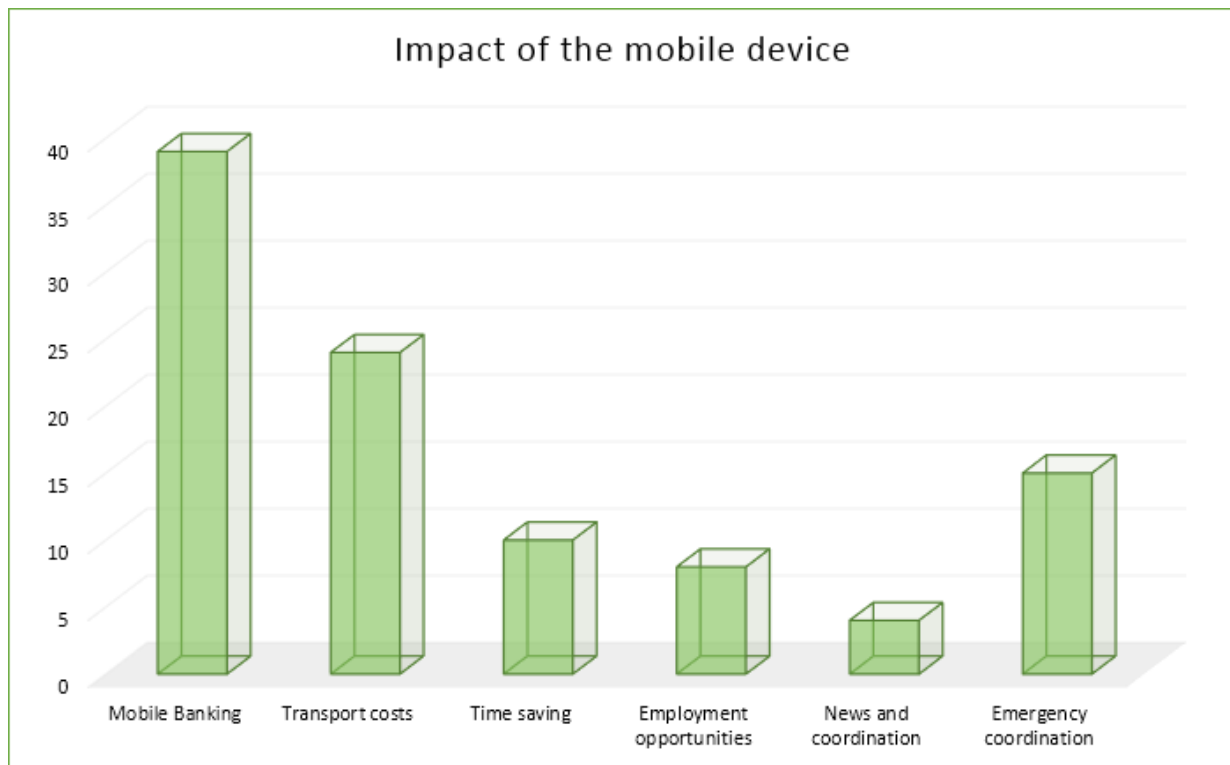
Thirteen percent indicated that community meetings were effective method of communication. There was an indication that community meetings were flexible, provided more insight and time for questions to be addressed without the concern of airtime.

Impact of mobile phone use on rural livelihood

Fig 14 shows that thirty-nine percent of the respondents indicated that the mobile phone had a positive impact on their financial capacity through mobile payment solutions (mobile banking). The device has acted as a partial substitute for the formal banking system and hence has allowed the rural population and farmers to use their phone like a bank account and a debit card. This has provided poor communities with the potential to benefit from faster and secure financial transactions. Eco cash and Tele cash platforms have enabled farmers and rural population to transact without boundaries, and even consult their bank balances in the comfort of the fields. Twenty-four percent indicated that the use of the mobile phone had a positive impact on travelling and transportation costs. This has enabled the farmers to access much of the needed information without the cost of travelling. Travelling costs also impacts on the time saved in doing a certain operation. Ten percent have indicated that using the mobile phone for transport

coordination has also made travel time more productive.

Figure 14: Impact of the mobile device



Source: Author's findings

Four percent of the respondents indicated that the use of mobile phones had enabled them to access daily news and some desired information without much effort. One farmer indicated that it was through the mobile phone news application that she learnt of major strikes and demonstrations that were happening in the major city of Harare. This has saved her danger as she had plans to visit the capital city that very same week. Thus the mobile phone has enabled respondents to get first-hand information and news about various factors influencing their daily lives, which is an important input to livelihood improvement. Fifteen percent of the respondents indicated that the use of mobile phones had enhanced their ability to deal with emergencies. Generally, mobile phones are regarded as a safety value in the moments of shocks. The use of the mobile phone for agricultural emergency coordination included contacting the Agritex offices or veterinarian for expert information regarding challenges being faced in their daily business of farming. One farmer reported the incident of his tobacco crops being eaten by an uncommon worm and how the mobile device was of help to gain expert information from the Agritex officers.

Agricultural-based uses of mobile phones

The present agricultural based uses of the mobile device recorded during the interview sessions and the collected questionnaires were branded and sorted into themes. The adopted themes are as follows: a) market information access, b) consulting with expert advice, c) financial transactions monitoring, d) agricultural emergency assistance and e) coordinating access to agricultural inputs. These themes were used as a guide to categorize the responses obtained from the participants.

Financial transactions monitoring

The data collected from the informants revealed that ninety-five percent of the small to medium scale farmers used the mobile device for financial transactions. Financial transactions included consulting the banks on loans access and the conditions of repayments, reminding the farm group members to repay and settle their loans liable to the farm group, pay for agricultural products and other commodities using the mobile payment solutions and access of funds (bank to wallet or wallet to bank, or wallet to wallet) using mobile payment solutions. The frequency of use per individual per month also revealed that this is the most used category of the mobile phone. In particular, comments from interviews revealed that the mobile phone has turned to become a mobile bank for most farmers especially during this time when cash crisis has hit the nation of Zimbabwe. Virtually all the farmers agreed to the fact that mobile payment solutions have helped to a greater extent and also has eliminated travel costs to the banks and risks associated.

Access to market centered information

The second most frequently cited agricultural based use of the mobile device showed that ninety of the participants were accessing market centered information. This included calling of friends and family members based in the major city of Harare for current tobacco crop market prices and also accessing other different markets, calling the BOKA tobacco offices to acquire firsthand

information and also intermediaries to negotiate on behalf of the farmers. The majority of the farmers indicated the gap of information asymmetry the mobile device has closed and cited many trips they have travelled with their products to the tobacco floors and only to be confronted with weak prices at the floor. Also the intermediaries were siphoning a lot of profits at the expense of the farmers who had hard worked to grow the crop.

Access to Agricultural inputs

The farmers were also using the mobile phone to coordinate how to gain access to agricultural inputs. This comprised of contacting Non-Governmental organizations (NGOs) and government offices to obtain seeds and plants for the business. Furthermore, farmers used the mobile device to collaborate with other local farmers for the availability of seeds and livestock breeds and where they can be obtained. This opposed what the farmers used to do, travelling to enquire of the inputs and sometimes with no results.

Agricultural emergency assistance

The use of the mobile phone for agricultural emergency assistance included contacting the Agritex offices or veterinarian for expert information regarding challenges being faced in their daily business of farming. The challenges stretched from diseased livestock to pest stricken crops. Approximately sixty percent of the informants indicated some level of use for this purpose. One farmer reported the incident of his tobacco crops being eaten by an uncommon worm and how the mobile device was of help to gain expert information from the Agritex officers. By being able to call the Agritex officers for assistance, time wastage and travel costs were avoided. And also the ability to access the Experts offices through calling or sending a message resulted in earlier resolution of many challenges faced by farmers

Experts consultation

Fifty-five percent of the farmers indicated that they were also using the mobile phone to consult experts for advice. This included contacting Agritex officers, veterinary offices and NGOs agricultural experts on advice pertaining livestock and crop maintenance. Crop and livestock maintenance encompassed buying appropriate seeds, timely planting relating to weather predictions, harvesting techniques and livestock varieties.

4.6 Perceived impact of a mobile phone use

Informants were asked to explain what they perceived to be the greatest impact of using the mobile phone in their farming operations and rural livelihoods. Impacts raised include: (1) efficiency, ratio of output to cost; (2) reach, the ability to communicate regardless of time or geographical boundaries; and (3) effectiveness, increased productivity through access to resources.

Effectiveness

Effectiveness or increased productivity centered on the improved access to agricultural resources. The benefits of getting quicker agricultural advice from Agritex Offices and non-governmental agricultural organisations, quicker access to inputs such as seeds and livestock, labor, loans from financial institutions and increased access to market information were mentioned as agricultural resources that impacted productivity. Effectiveness was also enhanced by the ability to coordinate for emergencies. For example, one participant indicated consulting the Agritex Offices when their tobacco crops were attacked by an unknown worm. By doing so, the experts were able to advise on treatment via the phone and normalcy returned to the crops. Hence as a result of continual consultation with experts, there was an indication that an increase in the overall productivity was achieved.

Increase in reach

Nearly forty-five percent of the respondents indicated the increase in reach as one of the major perceived impact of the mobile device. This included the ability to gain access to agricultural experts such as Agritex Officers and also members of the farm group. One participant during an interview specified that greater yields from crops and livestock production were realized through constant consultation to the agricultural experts. The ability to communicate with friends and family members on the issues relating to market prices has enabled them to make cost calculated decisions as to when and where they can sell their products. This has increased the profitability margin of the farmers by a greater extent as compared to traditional practices of using intermediaries who would siphon much of the profits. Other cited impacts of reach as indicated by the respondents included remote agricultural consultation which was necessary especially when the farmers experienced unpredictable weather pattern which would cause doubts on when to plant, the type of plant and harvesting time, awareness of agricultural training and notification on availability of loans from financial institutions, gain in access to buyers from larger and more distant markets.

Efficiency

Efficiency focused on the ability to coordinate smoothly for access to agricultural inputs and selling of the harvested produce. The ability to coordinate and organize meetings using the mobile phone reduced the risks of travelling without the assurance of the availability of the targeted person. The impact stretched also to negotiation of market price, transportation of the harvested produce to the market and also to coordinate and liaise with the buyers to come and buy from their fields. By doing this the farmers saved a lot of costs of transporting the

produce to markets in which there are no guarantee of a buyer.

5.0 Conclusions and recommendations

5.1 Conclusions

From the findings it was noted that a mobile phone was the preferred mode of communication among farmers.

Impact of mobile phone use on rural livelihood

It was observed that the use of the mobile device affected the rural livelihood positively in six ways, a) mobile banking brought efficiency, b) reduced transportation costs, c) time saving, d) creation of job employment opportunities, e) emergency coordination and f) access to information.

Agricultural-based uses of mobile phones

The use of the mobile impacted positively on the agricultural operations. Five agricultural based uses of the mobile were identified as, a) agricultural emergency assistance, b) the ability to consult experts without boundaries, c) quick access to agricultural inputs, d) access to market centered information and e) financial transactions monitoring.

5.2 Recommendations

From the findings and conclusions, this study would like to make the following recommendation:

- it was observed that the use of a mobile phone has a great impact on the socio-economic development of the rural population. Hence, the paper recommends that development practitioners and farm groups members should encourage and teach others who are unfamiliar with the impacts of the mobile device. This will spread the productive use of the mobile phone.
- that training women on how to utilize the mobile phone may be of greater benefit to the rural population. The trainings should comprise of methods of accessing and comparing market for sound decision making, coordination with others to combine resources using the mobile device.
- that the government should conduct some trainings and enlightenment programs on the benefits of using mobile phones. Furthermore, it should contact service providers to effect tariffs based on location so that those on rural areas may benefit from low tariffs. The government should also provide mobile phone subsidies to those who cannot afford them.

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