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Research Application Summary

The use of mobile phone in camel marketing: The case of Babille district of Fafan zone, Somali region, Ethiopia

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Abstract

This study assessed the use of a mobile phone in camel marketing in Babille district, Fafan zone, Somali region, Ethiopia. A random sample of 130 households was selected from two purposively selected areas (kebeles) in Babille district. Descriptive statistics and binary logistic regression model were used to analyze data. The model result indicated that age, year of education of household head, information seeking behavior, annual household income, access to market information and availability of mobile phone technicians were significant determinants of mobile phone usage. The most important challenges in the use of mobile phones in camel marketing were reported as lack of electricity, phone network interruptions, lack of mobile phone use knowledge, language barriers, lack of access to market information, and absence of organized sources of information. The study recommends a) adult education to enhance ICT usage, b) provision of seasonal extension services, and c) deployment of IT technicians to expand ICT usage in camel marketing in the Somali and other camel rearing regions.

Key words: Camel marketing, Ethiopia, ICTs, mobile phone, Somali region

Résumé

La présente étude a évalué l'utilisation du téléphone portable dans le marketing du chameau dans le district de Babille, zone Fafan, région Somali, Ethiopie. 130 ménages ont été sélectionnés au hasard dans deux zones choisies à dessein dans le district de Babille. Des statistiques descriptives et un modèle de régression logistique binaire ont été utilisés pour l'analyse les données. Les résultats du modèle indiquent que l'âge, le niveau d'éducation du chef de ménage, le comportement de recherche d'information, le revenu annuel du ménage, l'accès à l'information sur le marché et la disponibilité des techniciens de téléphonie mobile sont significatifs dans l'utilisation du téléphone. Les majeurs défis dans l'utilisation des mobiles dans le marketing du chameau étaient le manque d'électricité, les interruptions du réseau téléphonique, le manque de connaissances sur l'utilisation du téléphone portable, les barrières linguistiques, le manque d'accès au marché et l'absence de sources d'information organisées. Cette étude recommande l'éducation des adultes afin d'améliorer l'utilisation des téléphones

mobiles, b) la prestation périodique des services d'encadrement, et c) le déploiement des informaticiens pour promouvoir l'utilisation des TIC dans la commercialisation du chameau dans leurs régions d'élevage.

Mots clés: Commercialisation du chameau, Éthiopie, TIC, téléphonie mobile, région somalienne

Introduction

The livelihood of pastoral communities is highly dependent on income from livestock and livestock products. Livestock marketing information provides a basis for livestock producers and traders to make marketing decisions. For this reason, the establishment of reliable and timely national and regional market information system is vital for the development of the pastoral communities (Jama *et al.*, nd). Information Communication Technology (ICT) can improve livelihoods of farmers by increasing their access to potential markets by facilitating contact between sellers and buyers. Information Communication Technology also promotes agricultural exports and online trading, in addition to increasing producer awareness of potential market opportunities including consumer and price trends. By increasing awareness among producers on consumer trends and new production techniques, ICT can contribute to the diversification of production. Indeed, ICT based information systems also help intermediary organizations working with farmers to monitor the quality of production and compliance with regulations and standards of importers (IICD, 2006).

Though ICT is important in information delivery and helpful to poor people to improve their agricultural and non-agricultural activities in rural areas, electronic information and knowledge system and access are currently limited in many sectors of the economy of several African countries. It is particularly so in the pastoral areas where even the most basic telecommunication infrastructure is absent or available only at prohibitive costs (IDRC, 2011). Farmers lack basic literacy to understand new technologies and desperately need skills and support for production, processing and marketing. Traditional agriculture extension systems are weak and lack adequate manpower to effectively support farmers at their doorsteps (Madhvani *et al*., 2010). In connection to this, the use of ICTs such as mobile phone by smallholder farmers and pastoralists is constrained by a number of factors. The failure of agricultural markets for smallholder farmers often results from lack of access to information between traders and buyers and there is always limited connectivity among different markets. However, ICTs generally and mobile phone in particular provide easy means to disseminate agricultural information including market information. Therefore, this study was conducted to evaluate the usability of the mobile phone to enhance marketing camel in Babille district of Fafan zone, Somali region, Ethiopia.

Conceptual framework. Use of ICTs such as mobile phones in agricultural marketing in sub-Saharan Africa is a recent phenomenon but, its use is increasing. Literature shows that there is a wide range of factors that may influence the use of mobile phone technology in camel marketing. These include personal characteristics, situational factors, socio-economic factors and institutional factors in especially the rural areas. Among personal factors, sex, age, education level and family size were mentioned to influence the dependent variables.

Situational factors such as information seeking behaviour, mass media exposure, availability of mobile phone technicians and distance from town were also hypothesized to influence the dependent variables. Likewise, socio-economic factors such as income and access to credit as well as institutional factors such as access to market information were also hypothesized to influence the dependent variable and assumed to be the most important explanatory variables that might influence the dependent variables. Thus, this study was done to examine these relationships, and identifying the influence of each factor on camel marketing. The conceptual framework of this study is presented in Figure 1.

Findings and implications

This study was done to establish the determinants for use of mobile phones for camel marketing. The analysis employed both descriptive statistics and econometric methods. Descriptive statistics was employed to describe the characteristics of sample respondents and binary logistic regression model was used to identify factors affecting use mobile phone on camel marketing. The model result indicated that six of the eleven variables: age, year of education of household head, information seeking behavior, access to market information, availability of mobile phone technicians and annual income of the respondents were significant

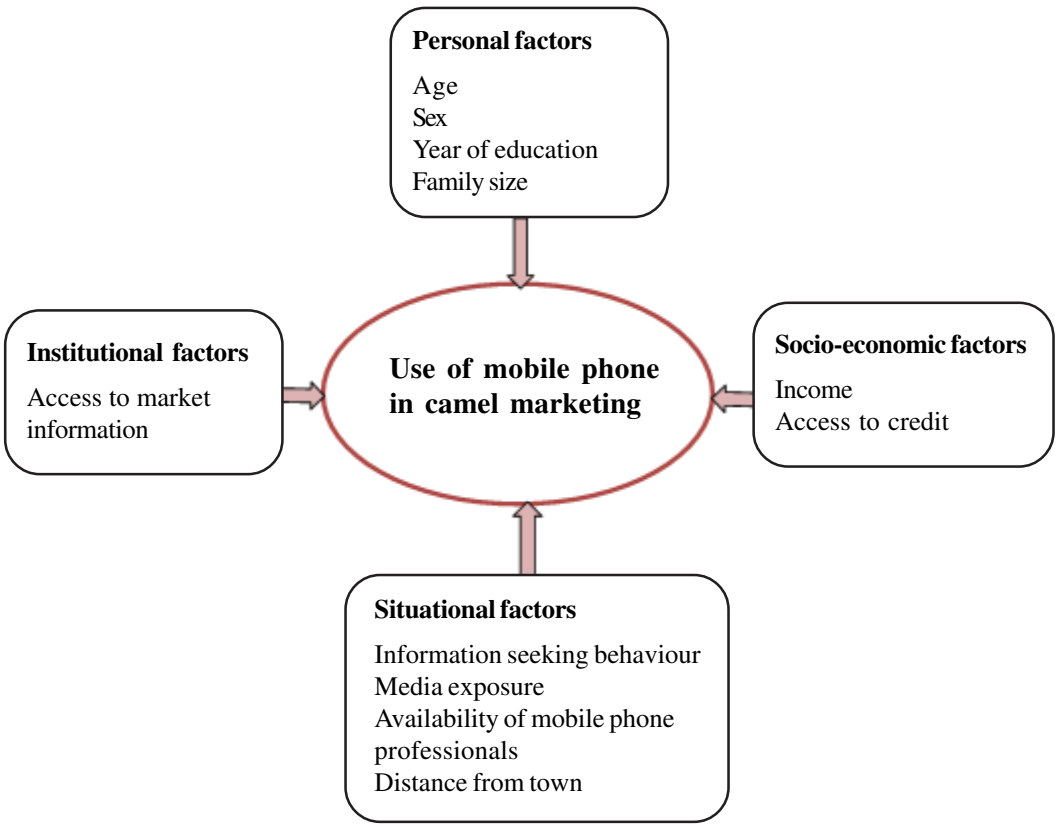

Figure 1. Conceptual framework of the study

for use of mobile phone in camel marketing. On the other hand, absence of electricity to operate a mobile phone, mobile phone network coverage, lack of knowledge to use a mobile phone, language limitations, and lack of access to market information were some constraints in using a mobile phone.

The study concluded that the older pastoralists or agro-pastoralists were more likely to use a mobile phone for camel marketing compared to younger ones. They were found eager to obtain new technology tools including a mobile phone in order to get appropriate and up-to-date agricultural marketing information which would in turn help them to improve their livelihood. Lack of basic skills to operate a mobile phone and language barrier were the other problems farmers faced in using tools. Availability of up-to-date market information without trekking long distances is a great motivation for use of mobile phones. In some parts of the study areas (kebeles), there were no mobile phone technicians to provide maintenance and operational services. It was observed that some farmers could not use some basic phone services. A little guidance was all they needed to be able to use these services. So, intervention by the district agricultural bureau targeting different age groups in mobile phone usage is necessary.

The study results also suggest that Government and local level development actors should encourage adult education. This would create awareness and skills to farmers to enable them to use mobile phones and thus access more knowledge to maximize their production. It is recommended to approach elderly but educated people to disseminate information and training on mobile phone utilization. Provision of seasonal extension services to agro pastoralists, mass media information access, the support of district administrators (DAs) and availability of camel market information is recommended. Establishing and strengthening market centers in various places in the region is recommended so that people will have timely access to the required information. Additionally, deploying IT experts at district level is also recommended so that they can assist farmers when need arises.

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