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Market In Their Palms?

**Exploring Smallholder Farmers' Use Of Mobile Phone Farming
Applications And Their Effect On The Farmers' Farming,
Marketing And Well-Being**

A Case Study of Selected Counties in Kenya

A Thesis Presented In Partial Fulfilment Of The Requirements For The Degree
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ABSTRACT

The role of technology in development has been discussed in wide and varied literature. Over the course of history, technology has facilitated the process of development by helping individuals transcend some of the problems they face in their daily life. In recent times, the revolution in information and communication technology has come to play a crucial role in development and poverty reduction. This study explored the use of such technology, in this case the mobile phone farming applications, by smallholder farmers in Kenya to facilitate their agricultural production and marketing. The aim of the study was to explore the use of the mobile phone farming applications by the smallholder farmers to access markets and information and to assess the effects of their use on the farmers' farming and marketing experience as well as their well-being outcomes.

The results from the study indicate that the mobile phone farming applications have facilitated the smallholder farmers to access markets and marketing information. These applications have been effective in reducing the information search costs and marketing transaction costs for the smallholder farmers leading to enhanced access to information and markets. The reduced marketing transaction costs have, in turn, led to increased market participation by the smallholder farmers. Evidence from the literature indicates that when smallholder farmers have increased access to market information, their power in the market, in terms of their ability to bargain with traders, increases. In this study, it was also found that the rural farmers had been empowered by their increased access to information and they could, therefore, engage in price negotiation with potential buyers. This, together with access to higher paying markets, led to an increase in the farmers' income. Furthermore, the use of these applications facilitated the farmers to form networks with other farmers and traders. These networks, eventually became, an important source of marketing and production information to the farmers.

In contrast, it was found that the mobile phone farming applications were not effective in providing agricultural production information to the smallholder farmers. As a result, the farmers were using other means to access agricultural production information. These included the use of the internet and the networks and linkages with other farmers to access agricultural production information. However, evidence from the study indicates that, these mobile phone farming applications have a potential of facilitating smallholder farmers' access to information and markets in Kenya.

DEDICATION

To Mum and Pam your prayers kept me going

‘Perhaps not to be is to be without your being.’

Perhaps not to be is to be without your being,
without your going, that cuts noon light
like a blue flower, without your passing
later through fog and stones,
without the torch you lift in your hand
that others may not see as golden,
that perhaps no one believed blossomed
the glowing origin of the rose,
without, in the end, your being, your coming
suddenly, inspiringly, to know my life,
blaze of the rose-tree, wheat of the breeze:
and it follows that I am, because you are:
it follows from ‘you are’, that I am, and we:
and, because of love, you will, I will,
We will, come to be.

Pablo Neruda

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ABBREVIATIONS AND ACRONYMS

| | |
|--------|--|
| AIDS | Acquired Immunodeficiency Syndrome |
| ASAL | Arid and Semi-Arid Lands |
| BEAP | British East Africa Protectorate |
| CAADP | Comprehensive Africa Agriculture Development Programme |
| CCK | Communication Commission of Kenya |
| DRC | Democratic Republic of Congo |
| FDI | Foreign Direct Investment |
| GDP | Gross Domestic Product |
| GNP | Gross National Product |
| HCDA | Horticultural Crops Development Authority |
| HIV | Human Immunodeficiency Virus |
| ICT | Information and Communication Technology |
| IFAD | International Fund for Agricultural Development |
| IMF | International Monetary Fund |
| ITU | International Telecommunications Union |
| KARI | Kenya Agricultural Research Institute |
| KENFAP | Kenya National Federation of Agricultural Producers |
| KIPPRA | Kenya Institute of Public Policy Research and Analysis |
| Kgs | Kilogrammes |
| KSH | Kenya shillings |
| MDG | Millennium Development Goals |
| MUHEC | Massey University Human Ethics Committee |
| NAFIS | National Agricultural Farmers Information Services |
| NEPAD | New Partnership for Africa's Development |
| SAP | Structural Adjustment Programmes |
| SSA | Sub-Saharan Africa |