Chapter 11

Use of Information and Communication Tools and Services by Rural Grain Traders: The Case of Kenyan Maize Traders

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ABSTRACT

Poor access to agricultural market information is a major factor constraining the performance of agricultural markets in developing countries. The search for new strategies for resolving this constraint has led to several ICT-based market information service (MIS) projects in developing countries. At the same time, the rapid penetration of new generation ICT tools (especially mobile phones) has resulted in wider application of these tools in agriculture. This paper examines the use of ICT tools and ICT-based services by rural grain traders in Kenya. It is based on data collected from 204 traders in Western and Rift Valley regions of Kenya. The study finds widespread use of ICT tools by grain traders. It also finds that the tools are used by grain traders to obtain market information, including information on price, volume, and where to source and sell grains, among others. The implications of these findings are that market development agents must focus on removing constraints limiting the use of ICT tools in rural areas. Spurring greater use of ICT tools has the potential to reduce transaction costs and improve the performance of rural agricultural markets.

1. INTRODUCTION

The poor performance of agricultural markets in most developing countries has been attributed to high incidence of poverty among agricultural households. Most such households face fragmented markets that typically involve many intermediaries (Shiferaw Obare, & Muricho, 2008). They also tend to deal with small volumes that make exchange costly. Improving the welfare of rural households requires efficient markets which in turn require access to market information,
transparent and profitable pricing system, and capital (especially credit and better production practices) (Okello et al., 2010). Indeed, recent studies identify lack of information as one of the major limitations facing agricultural markets (Poulton, Kydd, & Doward, 2006; Barrett, 2008; Okello, Ofwona-Adera, Mbatia, & Okello, 2010). Access to market information has the advantage of reducing the cost of agricultural transactions thus can directly impact the performance of such markets.

In the absence of readily available and accessible market information, opportunistic behavior (by traders and other market actors) tends to develop. One such behavior is the cheating on quality and quantity which in turn results in the failure of traders to establish long-term business relations (Fafchamps & Gabre-Madhin, 2006). Framers and traders cheat on the quantity traded by using non-standardized measurement scales such as tins that can easily be adjusted. Others even tamper the standard with weighing scales. Due to these kinds of opportunistic behavior between buyers (i.e., traders) and sellers (farmers), transactions tend to be relational (i.e., selling only to those previously known and hence trusted) and are based on visual inspection thus increasing the costs of exchange. Such transactions also preclude long distance since traders must travel long distances to verify the quality of traded commodity prior to buying. It also retards expansion of trade between regional and distant market actors.

In order to reduce the costs of exchange and improve performance of agricultural markets, a number of NGO or donor funded projects and programs emerged that offer market information services. Such projects often use new generation information and communication technologies (ICT), especially mobile phones, computers, CD Rom and email, as well as the old generation tools such as radio and television (TV) to disseminate information. Theoretically, households that use market information services provided by ICT-based MIS projects are therefore expected to face lower transaction costs. Further, at the regional (i.e., meso) level, access to market information through ICT-based MIS project has the potential to reduce transaction costs by lowering search/screening costs, negotiation costs, and commodity inspection costs.

This study assesses the use of ICT and market information services by grain traders operating in rural markets in Kenya? It specifically seeks to:

1. Characterize rural grain traders that use ICT for agricultural transactions and those that don't.
2. Assess the types of ICT tools that are being used by rural grain traders in Kenya.
3. Examine the kinds of market information sought by grain traders using ICT tools.
4. Assess the benefits to traders of ICT use in agricultural transactions.

This study focuses on rural grain traders in western Kenya. Rural traders face poorly functioning markets hence can potentially benefit from greater access to market information through ICT use. Understanding the characteristics of ICT users in such markets, the types of ICT tools used, the kind information sought and the benefits of ICT use can thus help in the interventions designed to improve the functioning of rural grain markets.

The rest of this paper is organized as follows: Section 2 provides the study context and outlines the conceptual framework used. Section 3 discusses the empirical methods. Section 4 presents the study findings while Section 5 concludes.

2. STUDY CONTEXT AND CONCEPTUAL FRAMEWORK

2.1 Study Context

Markets in developing countries operate under unique challenges. In many such countries, the markets tend to be characterized by: