Transformative Potential of Agricultural Mobile Market Information System in Tamilnadu, India: An Exploratory Study

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ABSTRACT

The agricultural sector is the largest and most critical economic sector and a developing country like India, with its economic backbone as agriculture, is highly dependent to sustain its population. To compete with other agricultural economies, a need exists to create effective linkage between the seat of agricultural production and market forces involved in the provision of goods to the consumers within India. A strong network communication must be established between the various stakeholders of agricultural trade to facilitate a balance between demand and supply. With the advent of mobile phones, internet, and other Information and Communication Technologies, new possibilities and multi-dimensional factors that create instant communication between the target groups have emerged and these ICT tools could be used as a source of agricultural information dissemination to the farmers. This paper analyses mobile based agricultural Market Information Services (MIS) that deliver critical market price information to farmers in Tamilnadu, India. The study also provides an overview of the ICT based mobile market linkage systems and analyses the operability of such projects. The study also assesses the benefits of such projects in providing relevant information to the farmers and the emerging opportunities for rural farmers to make constructive use of the e-agriculture projects.

Keywords: Agriculture, Economic Sector, Information and Communication Technology, Mobile Market Information System, Mobile Markets

INTRODUCTION

Agriculture is the main source of income for around 2.5 billion people in the developing world (FAO, 2003). In most of the semi-peripheral nations, the agricultural sector is the largest and most critical economic sector. The Indian agricultural sector provides employment for about 65% of the total labor force, accounts for 27% of the GDP growth, contributes 21% of total exports and also provides raw materials to several industries (Malhan, 2007). The impact
of the agricultural sector is wide-ranging and extends to economic growth, food security, poverty reduction, livelihoods, rural development and the environment. Moreover, the poorest half of the population benefits significantly more from agricultural growth than growth in other sectors of the economy (UN, 2008; World Bank, 2007).

India has a dominant position in world agriculture, with the second largest arable land bank in the world and it ranks in one of the top three producers of rice, wheat, coarse grains, fruits, vegetables, tea, coffee and jute. India also has some of the largest livestock populations in the world which combined with the large farming sector ensures that agri-business remains the overwhelming contributor to the economy from both monetary and employment perspectives (Malhan, 2007).

**Issues in Indian Agriculture**

India, located in South Asia, is one of the oldest civilizations in the world with a kaleidoscopic variety and rich cultural heritage. It has achieved all-round socio-economic progress during the last 62 years of its Independence. It has become self-sufficient in agricultural production and is now one of the top industrialized countries and the second most populous nation in the world. English is the major language of trade and politics, but there are fourteen official languages in the nation. The country is divided into 29 states and 7 Union territories for administrative convenience. The central government is the federal institution of governance but the states elect their own provincial government with a chief minister at its helm to run the state administration (Indian Government portal, 2010).

India has 17% of world’s population in less than 2.5% land area. Rural India consists of 700 million people spread over 6, 38,000 villages (Source: Indian Agriculture Scenario, 2008) and any developmental effort that is initiated by the government machinery has to be disseminated to all these rural production centers through extension activities. Agriculture in India is considered to be a primary occupation for a major segment of population and it sustains the livelihood of a vast majority of rural population who entirely depend upon it as their primary occupation.

Indian agriculture is predominantly a smallholder’s occupation with more than 70% of the farmers categorized as small and marginal farmers with farm size of less than two hectares (Suri & Sushil, 2008). Many of farmers are subsistence farmers and the production capacity of their land for many of them has reached its limit. The average size of land decreases by half every 15 years due to rapid population growth. Also, land ceiling acts and acts of succession from one generation to the next has reduced the size of individual land holdings and led to land fragmentation. Fragmentation of land is widespread in India and this factor plays a major role in explaining low levels of agricultural productivity. Farmers rely heavily on subsistence farming and this factor could lead to sub-optimal usage of factor inputs and thus lower overall returns to land (Jha, 2005).

Small land holdings, growing cost of production, increasing debt, low prices of some agricultural commodities in the local and international markets are aggravating the problems of small farmers and leading to farmer suicides. Hundreds of farmers in the Vidarba region have committed suicides and such incidences have also been reported from other parts of India (NSSO, 2003). Today, nearly 60% of farmers belong to marginal category with an average of 0.4 hectares of land and more than 75% of the agricultural producers within the country are small and marginal farmers.

One of the biggest problems facing the rural agrarian sector in the country is the risks associated with practicing agriculture. Farming is not an economically viable option as a means of sustenance for rural families anymore. As the average farm-size has become very small and fragmented, poverty and food-security continues to be the preponderant among the small and marginal landholders. The economic condition of the farmers has deteriorated further in recent years and there is a crux of migration of farmers from rural to urban areas to sustain
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