



THE ROLE OF MOBILE COMMUNICATION IN AGRICULTURE SECTOR 'A CASE STUDY OF DHARWAD DISTRICT OF KARNATAKA STATE'

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ABSTRACT

As most mobile communications are tailored for worldwide consumption, it is a significant challenge to develop applications that satisfy individuals with various cultural backgrounds. In the past decade, technology has undergone incredible advancements and become the key to keeping up with our fast-paced world. The mobile is the perfect example of technology. In many countries, agriculture accounts for the overwhelming majority of rural employment. Information and communication have always mattered in agriculture. Updated information allows the farmers to cope with and even benefit from these changes. Providing such knowledge can be challenging, however, because the highly localized nature of agriculture means that information must be tailored specifically to distinct conditions. The proliferation of adaptable and more affordable technologies and devices has also increased ICT's relevance to smallholder agriculture. Innovation has steadily reduced the purchase price of phones, laptops, scientific instruments, and specialized software. Agricultural innovation in developed countries has become more applicable to developing-country needs. Mobile phones are the success story of bridging the rural digital divide, bringing tangible economic benefits and acting as agents of social mobilization through improved communication. The capacity building amongst farmers it is essential to ensure the quality of information, its timeliness and trustworthiness. The article also presents a research agenda focusing on the production of mobile agriculture news. This paper seeks to explore the social dynamics of mobile communication in agriculture sector.

Keywords: Mobile Communication, Agriculture, Information Tech., Responsibility

INTRODUCTION

Mobile phones are widely recognized as a potentially transformative technology platform for developing nations. Mobile phones are transforming the lives of many users in developing countries and are widely recognized as an important current and future technology platform for developing nations. Mobile phones are considered important for development because they offer benefits such as mobility and security to owners. Also due to their unique characteristics of working using the radio spectrum they need not to rely on physical infrastructure such as roads and phone wires, and base-stations can be powered using their own generators in places where there is no electrical grid. Mobile phones only require basic literacy, and therefore are accessible to a large portion of the population. Finally, mobiles enjoy some technical advantages that make them particularly attractive for development. In addition to voice communication, mobile phones allow for the transfer of data, which can be used in the context of applications for the purposes of health, education, commerce or governance. This module highlights the impact of mobile phones on agriculture and rural development by outlining current knowledge and



describing innovative practices. Mobile phones are but one form of ICT. Personal computers, laptops, the Internet, television, radio, and traditional newspapers are all used to promote improved rural development and agricultural sector. In many countries, agriculture accounts for the overwhelming majority of rural employment. The manifold benefits that accompany improvements in agricultural productivity are well known: Farmers' incomes rise, food prices fall, and labor is freed for additional employment. In some instances productivity improvements have proven elusive, as climate change and uncertain commodity prices have worsened agrarian conditions for many rural communities. Development practitioners have rightly focused on the difficult situations of many farmers, especially smallholders, who have little room for error and even less protection from social safety nets. Technical innovation, most prominently demonstrated in the Green Revolution, has been key to improving agricultural markets in the developing world. Mobile phones, despite their recent entry into agrarian communities, are already helping those communities improve their agricultural activities.

DHARWAD DISTRICT AGRICULTURE

In Dharwad district, the irrigation varies from one taluk to another. As per the figure made available by Bureau of Economics and Statistics, the district has a Geographical area of 427329 hectares. The net sown area of the district during 2009-10 is 296484 hectares and net irrigated area is 50995 hectares. During 1999-2000, the net sown area was 331471 hectares and 43569 hectares of land under irrigation, this constituted 17.19% and 13.14% of the net sown area respectively. The net irrigated area has increased to 7426 (17.04%) hectares during study period i.e.2009-10 to the base year i.e. 1999-2000. The increase in net irrigated area over a decade is not uniform in all the taluks of the district have increased their land under irrigation. However, the increase in the net irrigated area in the district is a positive feature for the agricultural development.

Agriculture is the main occupation in Dharwad district. The district has varied geographical and climatic conditions and soils and contains three agricultural zones. The Northern Dry Agricultural Zone consisting of Navalgund, Ron, Gadag, Nargund and Mundargi taluks forms 80 per cent black soil and get an average rainfall of 564.2 mm. It is the main Rabi Zone area. The Central Transition Zone area consists of Byadgi, Dharwad, Haveri, Hirekerur, Hubli, Kundgol, Ranibennur, Savanur, Shiggaon and Shirhatti taluks. In this zone, red soil covers an area of 70 per cent and the average rainfall is 696 mm. This is an area where rainfall is certain and it is mainly a kharif zone. Due to the favorable climatic conditions in this zone, there is abundant scope to undertake varied cropping pattern under rain fed conditions. Kalghatgi and Hangal taluks come under the hilly zone. In this zone about 85 per cent of the soil is sandy clay in nature, with an average rainfall of 909 mm. The rainfed Paddy is grown in about 60 per cent of the area. After the harvest of Paddy crop, short term pulse crops are grown. As per the statistics available from 1901 to 1970, the annual normal rainfall in the district is 717 mm., out of which 422 mm comes from the South-West monsoon (Mungari) and 169 mm from the North-East monsoon (Hingari). It is found that 126 mm of rain comes before the monsoon season (pre-monsoon).

PROFILE OF AGRICULTURE STATISTICS OF FARMERS OF DHARWAD DISTRICT OF KARNATAKA STATE

No of Marginal Farmers-36383, Area in Hects-21675
No. of Small Farmers-49355, Area in Hects- 71641
Total Farmers-85738, Total Area-93316
Semi-Medium Farmers- 35123, Area in Hects-96310
Medium Farmers-19399, Area in Hects-113256
Large Farmers- 2965, Area-40096
Total No. of all Farmers-143225 and All Total Area-342978



K-KISAN

Monitoring of all the schemes implementations and capture the transactional data in real time mode. Enable to identify the eligible beneficiary and control on availing duplicate benefits. Ensure accountability, transparency and speedy disposal of transactional services. Ensure appropriate budget releases and expenditure control system based on the budget allocation for various schemes implementation.

REVIEW OF LITERATURE

MITTAL and KUMAR, (2000) , stated that the development of markets improves input output market interface and this is important for productivity growth. In agriculture, education and access to knowledge creates conditions that enable farmers to acquire and use information for decision making regarding a locative and technical matters effectively. The World Development Report 2008 (WORLD BANK, 2007) emphasized that agricultural extension plays an important role in agricultural development and in promoting sustainable, inclusive and pro-poor economic development. FAFCHAMPS and MINTEN'S (2011) paper estimated the benefit of information on markets and whether being delivered to farmers through short text messages (SMS) over mobile phones.

OBJECTIVES OF THE STUDY

- To know the need of mobile communication in agricultural sector
- To assess the Awareness of mobile communication for farmers of Dharwad district

METHODOLOGY

To analyze the facts in a given timescale, a descriptive methodology is used. For the purpose of this study, the facts and goals decided at the time of framing the policy were taken into consideration. Hence, mainly secondary sources were used for the study.

TRENDS AND ISSUES

The proliferation of mobile phones across the globe has impinged on agriculture in various ways. Mobiles are being used to help raise farmers' incomes, making agricultural marketing more efficient, lowering information costs, reducing transport costs, and providing a platform to deliver services and innovate. Whether the potential of these trends can be realized more widely, especially in rural areas and in an equitable way, is uncertain. Every aspect of the technology is changing rapidly; the public sector, private sector, and private citizens are constantly experimenting with new applications for it; and governments are grappling with any number of strategies to ease the digital divide. This note summarizes what is known so far about the benefits, challenges and enabling factors associated with mobile phones in relation to several aspects of agricultural livelihoods.

ROLE OF MASS MEDIA IN AGRICULTURE

The success of agricultural development programs largely depends on the nature and extent of use of the mass media in the mobilization of people for development. It has been realized that the development of agriculture could be hastened with effective use of mass media. Radio and television are acclaimed as the most effective media for disseminating scientific knowledge to the masses. In a country like India, where literacy level is low, the choice of communication media is of vital importance. The farmers can easily understand the operations, technology and instructions through television. A number of innovative mobile phone and social media applications are emerging to meet the new and expanded roles of communication.



AGRICULTURAL INFORMATION USERS

The agricultural sector has a variety of information user community. Agricultural information user populations are basically researchers, extension workers, farmers, educators, students, agribusiness personnel, bankers, industrialists, policy makers and agricultural documentalists. All these have different types of information needs. The farmers need information to know the Procedure of increasing output, the use of fertilizers, useful pesticides, high yielding seeds, testing needs of soils, access to credit facilities, marketing of their products, etc. With such a wide spectrum of the information needs of agricultural stakeholders, it is clear that information professionals need to develop a strategy that provides information to satisfy the information needs of the information users in agriculture.

MAKING AGRICULTURAL MARKETING MORE EFFICIENT

At a fundamental level, markets are about distributing information. They do so through prices, which serve as a unifying signal to participants to allow for the coordination of dispersed producers and consumers. Underlying this powerful mechanism, though, is the assumption that everyone knows the market prices for commodities, which is not the case in much of the developing world. Farmers have little information about market prices in urban areas of their own countries, let alone internationally. The result of this information asymmetry is price dispersion – the same goods sell for widely different prices in markets merely a few kilometers apart. Mobile phones, in addition to other ICTs, can overcome this problem by informing both producers and consumers of the prices offered for agricultural products in various locations. A number of studies have shown that when mobiles are introduced to farming communities that previously lacked any form of connectivity, prices unify as farmers learn where they can sell for a better price.

ONE DEVICE, MANY CHANNELS

Mobile phones are multi-functional devices. From smart phones to models available secondhand in rural markets, mobiles do much more than simply place voice calls. In designing a mobile intervention or project, it is important to keep in mind the various channels through which populations can be reached.

FINDINGS

Mobile phone usage in rural information access

Mobile phones service providers to plan for capacity building programs for rural communities on the emerging innovations in mobile phone application in order to realize their usefulness in agriculture. Through the use of phones in the study area the capacity of rural communities to access ICTS was built. The usage of mobile phone was found to benefit farmers in different areas. Most conspicuous areas are productivity, market access, natural resource management and knowledge base.

Phone usage and productivity

The general findings showed that there was a peak usage of phones during planting and harvesting seasons. Majority of the farmers used the phone to call stockiest, technocrats and traders due to the fact that crop husbandry is one of most important livelihood activities in the study area. Early in the season, the phones are used to inquire about time of planting, source and availability of seeds and other inputs. During mid season, most farmers used the phone to inquire about availability of pesticides for pest and disease management. Later in the season during harvesting, the phones were used to inquire about prevailing market prices for agricultural commodities.

Phone usage and market access

The farmers reported that presence of the phone made easier for them to communicate with their older customers by informing them on the availability and quantities of agricultural products.

Phone usage and knowledge base

The presence and usage of the phones built self confidence in the farmers that some managed to



buy their own. The experience in using the village phone contributed to building confidence in using any other phone, knowing phone alerts.

CONCLUSION

As mobile phones come into more widespread use and phone applications for agriculture increase, it is clear that they have the potential to confer significant benefits. To summarize, they may help to increase income, improve the efficiency of markets, reduce waste, and improve welfare. They can reduce agriculture's significant transaction costs, displace costly and time intensive travel, and facilitate innovative interventions, especially in service delivery. A number of key lessons related to ICT-in-agriculture policies and projects were gleaned during the research for this e-source book. Using ICT to achieve agricultural development goals requires supplementary investments, resources, and strategies. Flexible but strongly supportive policies and regulations, complementary investments in physical infrastructure, support to men and women farmers of different age groups, technological appropriateness, and the enabling environments for innovation and new businesses will determine the long-term impact and sustainability of these efforts. These lessons are not conclusive – much remains to be learned but they serve as sound considerations as investments are made in future interventions. The findings of this paper are simply a glimpse into the potential role mobiles could play in improving agricultural productivity and access to lucrative markets. The study above underscores the critical role mobile phones can play in greater efficiency for farmers in rural setting. One of the key findings in this paper is that mobile phones are increasingly accessible to lower-income groups in rural areas. From the discussions and observations made, it was found that farmers were more excited about using the phone to access information on agriculture.

REFERENCES

- Maya Ranganathan & U M Rodriques: (2010), *Indian Media in a Globalized World*, SAGE Publications
- Richard Campbell: (1998), *Media and Culture*. Bedford Pub. USA
- R K Sharma & S K Bhoi: (2011), *Agriculture at a Glance: Enhanced Competition Explorer*, DPH, New Delhi
- N A Mujumdar & Uma Kapila: (2006), *Indian Agriculture in the New Millennium Vol.1*, Academic Foundations, Haryana
- N A Mujumdar & Uma Kapila: (2006), *Indian Agriculture in the New Millennium Vol.2*, Academic Foundations, Haryana
- Maya Ranganathan & U M Rodriques: (2010), *Indian Media in a Globalized World*, SAGE Publications
- M S Swaminathan: (2007), *Agriculture Cannot Wait: New Horizons in Indian Agriculture*, Academic Foundations, Haryana
- Marco Ferroni: (2012), *Transforming Indian Agriculture India 2040: Productivity, Markets and Institutions*, Sage India
- R Saravasan: (2008), *Agricultural Extension: Worldwide Innovations*, New India Publishing Agency, New Delhi

