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MOBILE MARKET ADVISORIES AND FARMERS' LINKAGE WITH MARKETS : A CASE STUDY FROM TAMIL NADU

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ABSTRACT

The agricultural information plays a pivotal role in accelerating agricultural productivity, farm profitability and in turn leads to up scaling of rural livelihoods. The information is the key source for farmers to make vital decisions from sowing to selling of produce. But still the power of technology in rural market domain is untapped. The farmers seldom get accurate information about local markets or the preferences of the end-consumers. The Market- Led Extension approaches could help in establishing market linkages between farmers, markets and processors. The forward and backward linkages of farmers with markets and conglomeration of stakeholders is possible by leveraging Information and Communication Technology (ICT) Tools. The widespread use of modern communication gadgets would improve market efficiency and work out price spread of the produce in favour of the producers thereby enabling a fair trade for all the members of the supply chain.

Key words : *Information and Communication Technology (ICT) Tools, Agricultural Information, Forward linkage, Supply chain, Market-led extension*

Prelude : In India out of 138 million farm holdings around 85 percent belongs to small and marginal farmers and their performance is essential for ensuring food security (State of Indian Agriculture report 2012-13).The declining farm returns, scarcity of natural resources and widening technology divide have made farmers to quit farming or look for alternative livelihood activities. In India, due to high transport costs, lack of reliable price information, and inability to verify quality of the produce, farmers are often exploited by intermediaries (Aparajita Goyal, 2010). Market price inefficiency amounts to 20% in price variations for the same crops in neighboring markets with farmers getting only 25% of the final price for their raw produce and buyers paying 20% more for the produce **(**Suresh Chandra Babu *et al.*2011).The small and marginal farmers accessed less information and from fewer sources than did medium- and large-scale farmers (Barret, 2008). They tend to sell their produce in farm gate itself or in low paying markets. These village markets offer low prices and characterized by significant price variation. The information asymmtricity will foster opportunistic behavior of other market actors which in turn traps farmers in vicious cycle of poverty. Hence the market information should reach the farmers so as to make needed and quicker decisions so as to supply the commodities where they could get better prices. It is estimated that around 20-25 percent of the vegetables produced is lost due to lack of post harvest and proper storage facilities (FAO, 2000). The supply chain and market efficiency plays a crucial role in realizing the value for the vegetable growers (Suresh Reddy, 2005). More specifically, Storability is limited and need special arrangements like cold storage with higher levels of investments, normally not affordable by farmers.

Need for Backward and Forward Linkage : The correlation between technology and rural development is highly positive. It is important to develop the farmers access to backward (seed, fertilizer, pesticide and other inputs) and forward (trading, wholesaling, export) markets for improving their profitability). Agro market Advisory services can leverage the forward and backward linkages of farmers with markets and conglomeration of stakeholders is possible. The timely market information helps to aware the about market prices, facilitates trade and informs business decisions. For reaping the economic benefits out of crop production, coherent efforts should be initiated, involving all the stakeholders of the value chain (Poot, E. H., Dekker, P.A.R., Jonkman, B. and Splinter, G.M., 2000). The Market led extension approach can help the farmers to realize their real farm produce income. And it transforms the farmers themselves from producers to producers cum sellers. It helps for establishing market linkages between farmers, markets and processors (Bridge, 1996).

Agro Market Information for farm profitability : The farmers are using both formal and informal sources for their information needs. The communication sources vary from Agricultural extension officers to neighbor and relatives. The present day Public extension system is not able to serve all the need of the clientele. The ratio of staff to farmers varies widely across the country (1:300 in Kerala, 1:2,000 in Rajasthan) (Raabe, 2008). Only 40 percent of farmer households have access to one or more sources of information at all-India level, (NSS, 2005). To meet out these challenges a dynamic technology generation and transfer of technology system is needed. In this context new and advanced Information and Communication Technology (ICT) tools such as

Computers, Internet and Mobile phones have tremendous potential to facilitate technology transfer to farming community. Through ICT tools, people in rural areas can connect with the local, regional and national economy and access markets, banking/ financial services and also farm based services. The market information for the farmers will lead to transparency in the trade, better bargaining power which leads to better price realization. The market advisories also reduce transaction time, travel, and costs by bridging distances between market and farm gates. The personalized market messages strengthens interpersonal communications which can initiate local networks viz., Farmer Produce Organizations (FPOs), thereby exploitation of farmers by middlemen can be avoided. Along with the improved decision making process, gender bias can also be narrowed down since rural women can also participate in trade from their houses.

Mobile based Agro market advisory services

With increasing mobile ownership of 951.37 million in India, Mobile technology has many more advantages such as personalized information sharing, instant delivery of message, mobility of devices and cheaper cost for deployment than any other ICT devices such as computers, Internet etc., The personalized, site specific, relevant and time bound Agro information sent via mobile handsets either text or audio formats will reach the end clientele and makes the innovation and diffusion process easier. The earlier studies (Overa (2006) ; Aker and Mbiti (2010); Fafchamps (2011); Mittal and Tripathi, (2010)) documented the positive impact of Mobile based market advisory services by initiating transparency in trade, reduced price dispersion, reduced information seeking cost, better bargaining power and better price realization and better livelihood of farmers.

The small and marginal farmers, despite access to information, have not succeeded in overcoming constraints resulting from poor access to capital, poor infrastructure and lack of access to markets. The small and marginal category of Tomato growers is incurring commission and surcharges while selling to commission agents which in turn reduce their price margin. (Siva balan *et al*., 2014). Hence it is necessary to initiate infrastructure facilities like farmers shandy, market committees along with the implementation of modern communication technologies for Market Intelligence.

Success story of Thiruchendurai–Banana Trading centre and Cold storage godown

India is the largest producer of banana with an annual production of 30.8 million tons from 8.30 lakh hectares and accounts to 19% of the total world production Banana is the most important fruit crop in India and accounts for 11.1 percent of fruit area and 32.6 per cent of the total fruit production. Tamil Nadu state ranks first among the states in production. The state produced over 4.9 million tonnes of bananas in 2009-2010 and more than 8 million tonnes in 2012-2013. In Trichy district banana grows in 15,132 ha with a production level of 0.55 million tonnes. (National Horticultural Board Report 2012-13). Though National Research Centre for Banana (NRCB) and State Agricultural Universities developed many usable and fruitful technologies for enhancing the production, the banana grower's profitability depends on the market forces only. Moreover the post harvest losses accounts for 22-30 percent with a tune of Rs. 300 crores annually. The joint interventions of TNAU market advisory (DEMIC) and trade platform by government machinery viz., Directorate of Agricultural Marketing and Agribusiness , Government of Tamil Nadu made strong evidence of higher price realization and less information divide among Banana growers in Trichy district of Tamil Nadu, India. To prevent post harvest losses and better price realization, banana trading centre and Cold storage godown was inaugurated in Thiruchendurai village of Anthanallur Block of Trichy district on 30.6.14 at a cost of Rs.400 lakhs with the sponsorship from National Agricultural Development Plan (NADP) The open auction system is followed in the centre helps the farmers to get price margin without any middlemen commission. The participation in the auction is free for both farmers and traders. The farmers are well in advance informed about the dates of the auction via free short message services (SMS) by Agro Market Intelligence cell & Business Promotion Centre (AMIC & BPC), Trichy. The farmers can plan their harvest based on the dates and participate in the auction

State of art facilities at Banana trading centre and Cold storage godown

The tendency of farmers in selling banana without cleaning and grading at farm gate itself will lead to lesser prices per bunch. To help the farmers for better price remuneration, at Thiruchendurai banana trading centre , separate cleaning and grading facility is provided at free of cost. There is also space for packing the banana bunches, shops for traders, Vehicle parking space and Administrative buildings. The farmers from adjoin districts of Trichy, Pudukottai, Tanjore and Karur are participating in the auction. The farmers are bringing the bunches in Bi-cycles, Two wheelers, Mini vans and Lorries to the weekly open auction .The bunches are first graded in the grading place and assigned with auction serial numbers. The auction will be conducted by the officials from Directorate of Marketing and Agri business (Department of Agriculture) in the presence of both farmers and traders. Since there is no entry fee and charges for traders to participate in the auction, the farmers can get increased price margin without any commission. The farmers are getting the money for the quantity sold on the same day itself. Whenever there is a glut situation or market price is lower, farmers can keep their bunches in the cold storage

Thiruchendurai Banana trading centre and Cold storage godown Aug.-Oct 2014 Auction details

Sl. No	Month	No. of Farmers participated	No.of Traders participated	Bunches sold	Value of transaction	Highest price sold per bunch	Avg. value per bunch
1.	August	53	34	1793	Rs.2,68515	Rs.375-450	Rs.146
2.	September	62	56	2981	Rs.5,81,321	Rs.410 -550	Rs.221
3.	October	77	59	4458	Rs.5,77,562	Rs.175-500	Rs.136

Source : Deputy Director (Agri business), Trichy Report, 2014

godown of 1000 Mt capacity. The storage charge for cold storage godown is highly affordable for small and marginal farmers at the rate of 60 paise per Kilogram for a period of one month.

The farmers opined that they are getting more price margin while selling in the open auction than selling to commission agents or village merchants. The post harvest practices like cleaning and grading of the bunches also enhances the price of the bunched in the auction.

CONCLUSION

Poor efficiency in the marketing channels and inadequate marketing infrastructure leads to higher marketing costs thereby escalating the consumer prices also. The farmers should be completely clarified before subscription of any market advisory services. The awareness creation on newer advisory services and technology is also needed. The training need of the farmers should be identified and suitable addressed (Khurana, and Satvindarkaur, 1996). Thus seeking opportunities across the value chain with latest ICT gadgets to improve the farm profitability is imperative and timely.

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