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Effects of information and communication technology use on fishing market efficiency and livelihood of fishmongers in India.

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Abstract : This article assesses the effects of mobile phones use on the fishing industry in the developing states of India. It contributes on how mobile telephony can help to overcome market inefficiencies in developing states of India due to imperfect information. Fishing is done primarily by small enterprises, working near home. Market and traditionally selling their catches to a specific market. This causes large geographical disparities in market prices, According to local conditions of supply and demand. In fisheries sub-sectors, mobile phones are used to coordinate fishing efforts(Adogla,2009);product marketing , talk and to improve safety(Spore,2008); as well as linking fisherman and wholesalers together for business(Scheen,2008). The study assessed mobile phones application as a communication channel in fish marketing enterprise among fishmongers in Indian fisheries sector .Information of fish market intelligence showed that fish retailers are small scale entrepreneurs dealing mostly on low quality processed fish products. Mobile-phone use in fish marketing enterprises to conduct suppliers, customers and to monitor prices. It is expected that expansion of network coverage around the lake, riverside area, and chorus will multiply the impact of mobile phone contribution to communication and information dissemination among operators in the chain of fish Production .Therefore, mainstreaming mobile phone technology is effective means of reaching fisher folks in isolated environment while promoting information dissemination.

Key words: Fisheries, GSM, Fishmonger

INTRODUCTION

Mobile-phone added services and convergence

Mobile telephony is one of the important technologies of ICT.Mobile phone can do many more things than simply support ordinary voice calls. In India, value added services –all applications other than currently account for approximately 7% of wireless revenues. The total UAS market in India in 2007 was approximately US\$ 900 million, up fromUS\$678 million in2006.

As, in many other countries, the leading UAS application in India are short message service (SMS) and downloadable ringtone. Other applications are voting via sms for finalist on the TV shows, cricket result etc.

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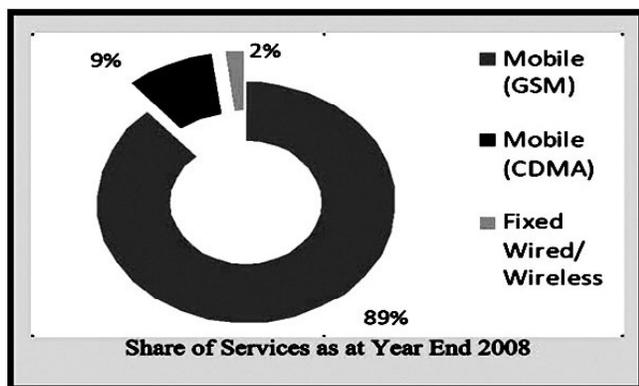
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SMS –based service are also providing valuable health and agricultural in formations. An interactive service called Almost All Question Answered(AQUA), created by Development Information Lab at IIT Bombay, is providing formers in the state of Maharashtra with advice on the broad range of agriculture hood topics, ranging from better forming method to marketing strategies. Farmers can register for the service at no charge and submit question in English, Hindi, Marathi etc., via sms. Experts at agricultural station respond to the question.

Indian fishermen are among the groups that have been shown to benefit from the introduction of mobile phone. Building on this evidence and application called Fisher Friend is how being piloted in Tamil Nadu. A joint project of Qualcomm India, Tata Indicom, Asyut and MSSRF. Fisher friend is delivering information or current market prices, along data on wave height and weather

forecast, to fishermen at sea via mobile phones.

Fish culture practiced is less than 30% of the total areas available. This has a potential to create huge opportunities, provide fish cultivation is done on a scientific basis. India is the largest procedure of inland fish, ranking next only to Japan. With an abundance of fresh water resources, India has still not been able to tap even 30% of the potential area for inland fish production. Entrepreneurs of Andhra Pradesh, west Bengal, Bihar and Kerala has chosen to take this occupation on commercial scale. And the result has shown 10, 56,000 tons of inland fish production in 2007-2008 ranked next to west Bengal and Bihar, which is far more endowed with water resources. In these states farmers are encouraged to form cooperatives to take up farming in ponds and lakes. There is some macro –level evidence that ICTs promote economic growth [Roller and Waverman 2001], the micro level evidence has been purely anecdotal. Thus the case of mobile phones in Kerala will also allow us to examine whether ICTs can play a role in promoting welfare in developing countries.



Fisheries contribute about 3% to total economy of the state. The natural landforms of the state endow Kerala with huge output of marine and fresh water fish haul each year. About 10.85lakh people earn their livelihood from fishing and allied activities such as drying, processing, packaging, and transporting fisheries. The well-being of this fishermen and workers on the proper implementation of the various scheme devised by the department of fisheries. The government of Kerala is enforcing every measure possible in their interest.

Fishing is done primarily by small enterprises, working near home markets and traditionally selling their catches to specific market. This causes large disparities in market prices, according to local conditions of supply and demand.

A case study on the impact of ICT on small – scale fishing Enterprises in Kerala, India:

THE IMPACT OF MOBILE- PHONES ON SMALL-SCALE FISHING ENTERPRISES IN KERALA , INDIA

More than 70% of adults in the Indian state of Kerala eat fish at least once a day and more than one million people work in the fishing industry. Fishing is done primarily by small enterprises, working near home markets and traditionally selling their catches to a specific market. This causes large geographical disparities in market prices, according to local conditions of supply and demand. These disparities were so great that it was not uncommon for fish in the same market to be discarded because they could not be sold while there was an active trade going on in neighboring towns.

Mobile phones services were introduced in Kerala in 1997 and expanded progressively along the coast and outwards from the major urban areas .Network coverage also extends 20-25 kilometers out to sea, allowing fisherman to find out the prices in different markets along the coast, decide where to land there catches and agree on prices before landing their fishes , effectively conducting auctions by phone.

The effects have been dramatic .After mobile phones were introduced, 30%-40% of fishermen began selling fish outside their home markets compared beforehand .Within a few weeks this significantly reduces the dispersion in fish prices between markets .Prices on any given day now rarely differ by more than a few rupee .Moreover there are almost no cases of wastage.

Mobile phones have resulted in an increase in fishermen’s income .On an average daily revenue have risen by Rs.205, while costs (including the cost of buying the phones) have increased by Rs.72 .The introduction of mobile phones has a modest benefits for customers, with the average price of sardines falling by Rs.0.39 per kg or just under 4%.

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Source; Jensen, Robert 2007," The Digital Fisheries sector."The quarterly Journal of Economics; Vol CXX%% August – 2007 Issue B. Provide (Information Technology),Market performance and welfare in the South Indian

CONCLUSION:

ICT sector reform has been the main driver of performance in the telecommunications sector, in addition to technological advancements .There has been a global shift of policy in the telecommunications sector from development through state owned enterprises to market liberalization and privatization of state owned enterprises.

The direct positive effect of information and communications technology on poverty reduction can be seen through its impact on small and medium sized business. The addition of Mobile Phones reduced price dispersion and waste & increased fisherman's profit and consumers per kg compared with up to Rs.10before.Moreover there are almost no cases of wastage. This result demonstrates the importance of information for the functioning's of markets. Information makes market work and markets improve welfare. These technologies not only can increase earning but it can be expected to lead to improvements in health and education .In addition, because mobile phones in Kerala are private sector initiative rather than the project. The service is self-sustaining; mobile phone companies provide service because it is profitable to do so, and fisherman are willing to pay for mobile phones because of the increased profits they receive. The welfare gains to be had are directly tied to and in fact are indicated by the profitability of both arbitrage and mobile phone provision and the private sector may be better suited to identifying such opportunities. The evidence here suggests that the benefits of ICTS can be found among fisherman or farmers not just software engineers or call centre workers .Mobile phone technology is contribution to relaying market information between fish producers , processors and fish sellers. Thus rather than

simply excluding the poor or less educated the digital provide appears to be shared more widely throughout society.

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