

Common Service Center: A Tool for Empowerment of Rural Farming Community in India

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Abstract

The post liberalisation phase brought reforms in the agriculture sector and various factors impacting high growth, including emphasis on quality research, increased use of Information Technology and expansion of agriculture extension education. Consequently, technology penetration has not only widened the scope of agriculture, but brought government's attention to higher production vis-a- vis empowerment of rural farmers while providing agricultural information at their door step. Effective systems have been developed followed by major interventions like Green Revolution of the late 1960's and Information and Communication Technology (ICT) in the late 1990's. ICTs are not only perceived as a tool for high-end research and development but rather the new technologies and initiatives which have made significant improvements in the life-styles and the efficiency-levels of the farming community. To understand the impact of ICTs on the farming community, the role of Common Service Center (CSC) is discussed in the present article as one of the major means of dissemination of information to rural farmers.

Introduction

The agriculture sector in India has undergone a rapid change with the varied policy interventions of the government. The major interventions amongst all could be the application of Information Technology (IT) or Information and Communication Technology (ICT) in agriculture and its allied sectors. The agricultural scenario has changed rapidly interconnecting the policies related to pricing, marketing and trading and over all empowering the farming community and energising their bargaining power.

Technology intervention and its consequences are being debated and accepted by policy makers, researchers, agricultural scientists and people working

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in these areas. It is argued that increased information flow has a positive effect on the agriculture sector and individual firms. Though, collecting and disseminating of information is difficult and costly, IT and ICT have the potential to help increase the amount of information provided to all recipients in the agricultural sector and to decrease the cost of disseminating information. The question is how dissemination is possible at the farmer's level and what are the best techniques to transfer information to the farmer's door step in the rural areas.

It is a fact that though there is much research on agriculture in India, its results are not reaching the target group. Access to information has been a major issue in agricultural development in India. Improved communications and access to information is directly related to socio-economic development of the farmers. However, the major problem revolves around farmers accessing on-time information.

Understanding the problems of the farmers in accessing agriculture related information, Government of India emphasized on the intervention of ICT in bringing the information center or access point to the farmer's door step. The ICT interventions were in the form of Television, Radio, Internet, Mobile, Internet Kiosks or CSCs, etc in the rural areas. Various ICT Initiatives were taken up and implemented at the ground level by the government, private or by Public Private Partnership (PPP) mode. New institutions were set up at the ground level to execute the initiative and to ensure better penetration of ICT Initiatives.

Shifting of Agricultural Scenario and Information Needs

After independence, the traditional systems of information dissemination such as pamphlets, posters, radio, and television have been used to disseminate agricultural information to the farmers which resulted in gaps in transferring the information to the farmers. The information was not always accurate and on time. The access to modern agricultural technology was credited to Television by 9.3 per cent farmers and to Radio by 13 per cent farmers as against only by 5.7 per cent Farmers to Extension Workers and only 0.7 per cent farmers to the Krishi Vigyan Kendras (KVKs) (NSSO, 2005). To reduce the information gap, the Government of India formulated the National e-Governance Plan (NeGP) to achieve the larger goal of good governance.

CSC and its scope

To achieve the larger goal of attaining good governance, the Department of Information & Technology (DIT), Government of India, has planned to establish Common Services Centers (CSCs) across the country in rural areas to empower

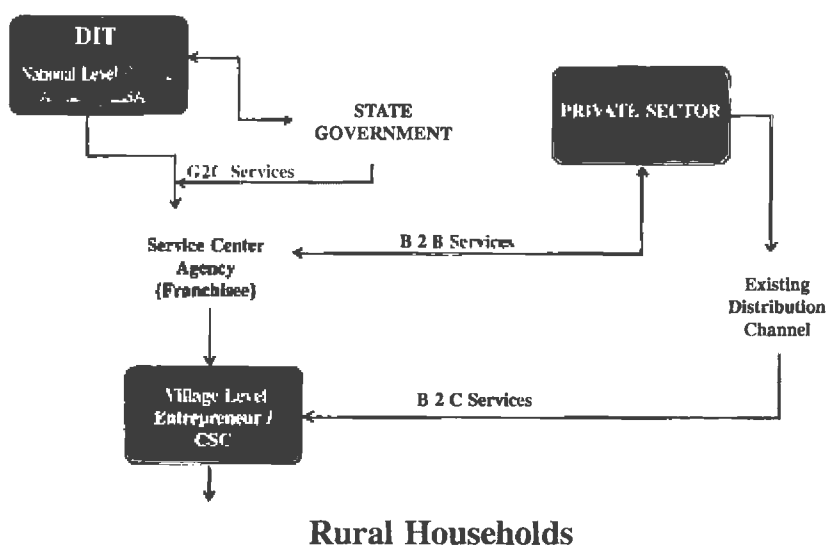
the rural population with their effective participation. CSCs have been set up under Public-Private-Partnership mode during 2007-2008. With this rural infrastructure in place, it is expected by the government that majority of farming community will have access to Internet and importantly to information meant for their development.

Common Service Center as claimed by the department is not merely an e-governance programme or just an information center; it is a center to fulfil community needs. The CSC scheme is not only about opening mere centers but importantly linking rural India to a basket of information, goods and services through end to end demonstrable models. Through CSCs, different services are being provided to a majority of the population at a cheaper rate. These services include

- Delivery of public services- G2C and B2C,
- Empowerment of socially disadvantaged people for inclusive growth,
- Access to quality education / skill upgradation,
- Access to cost efficient and quality health services, etc.

The CSC Structure

In the CSC structure, decentralised governance is built up in implementing the e-Governance scheme in India, where the Department of Information and Technology (DIT), is at the highest level followed by the State Designated Agency



(SDA), National Level Service Agency (NLSA) or Jana Seva Kendra, (it provides Govt., agriculture, education, employment, banking, financial and general and specified services. This is provided on different platforms like, G2C, G2B, B2C, B2B) the Service Center Agency (SCA) and at the bottom it is the Village Level Entrepreneur (VLE). Being the apex body, DIT is the initiator and provides policy and regulatory support and combines the central and state support for the CSC scheme. The department also undertakes necessary approvals from the Central and state governments for smooth implementation of the scheme and also provides necessary support for delivering e-governance service and a minimum guaranteed revenue support.

The National Level Service Agency (NLSA) is a programme management body at the national level and creates a sustainable business model. It also helps in formulating the CSC roadmap for implementation and develops transparent procurement and monitoring process. Importantly, NLSA facilitates and assists state governments in selecting the SCAs and mobilize resources from various sources based on the felt need at the state level. It develops training and capacity building while sharing knowledge and integrating the best practices.

Following the central department, the State Designated Agency (SDA) provides policy and regulatory support at the state level. It facilitates in integrating the existing ICT enabled government schemes into the CSC. SDA also selects the Service Center Agency through a competitive bidding process, and provides local infrastructure support to State Wide Area Network (SWAN), State Data Center (SDC), Land Space, power, etc. SDA coordinates with different departments of Government of India to enable e-Governance services and content. At the state level, SDA facilitates coordination and follow up at district, block and panchayat level and with industry associations and service providers. Finally SDA also supports capacity building activities.

At the state level, the Service Center Agency (SCA) is the owner of the CSC business and sets up CSCs in a phased manner with necessary hardware and software. SCA selects the location of CSC, maintains it through locally selected and trained kiosk operators while properly identifying entrepreneurs. It promotes the use of CSCs in the rural areas through the state level and local level promotion campaigns. SCA introduces new services from time to time including aspects like service charges, collection and remittance, quality of service parameters, protocols, etc. At the structure of CSC, Village Level Entrepreneur (VLE) is placed at the last tier. VLE plays an important role in overall implementation of the scheme. A VLE should have proximity to the customer and consumer needs and he/she should be trusted by the consumer and have knowledge about computer basics and ability to invest in opening a kiosk.

Study Area and the Initiatives Covered

As part of the NAIP/ICAR project on ICT in Agriculture, three major initiatives based on the Common Service Center (CSC) were studied in three states of Eastern India. The states are Orissa, West Bengal and Jharkhand. Being one of the underdeveloped region in the context of growth of information and technology, an attempt was made to understand the practices of the new IT intervention in the form of CSCs. For the study, Information Technology Mediated Agriculture Extension System of Jharkhand, e-Gram Initiative of Orissa and Sahaj Tathya Mitra of West Bengal were selected to understand the multiple impact of the CSC on local farmers. Though the institutional arrangement of CSC is common for all the states, their functioning, service provision and business model is seen to be different and unique. The present article analyses the IT Mediated Agriculture Extension System of Jharkhand and Sahaj Tathya Mitra Kendras of West Bengal.

S. No.	ICT Initiatives	Initiator	Zone	Area	State	Technology Used
1	IT Mediated Agriculture Extension System	BAU - Ranchi	East	Garwah	Jharkhand	CSC -Internet
2	e-Gram	DRDA / NIC	East	Ganjam	Orissa	CSC -Internet
3	Sahaja Tathya Mitra	SREI - Sahaj	East	North 24 Pargana	W. Bengal	CSC -Internet

IT Mediated Agricultural Extension System in Jharkhand, an internet based ICT intervention was initiated by Birsa Agriculture University in 2008 with an objective of developing expert systems on selected crops as per the needs of the farmers and to prepare multimedia based e- learning content in local languages and transfer them into CDs for use of the farmers. The initiative is funded by DIT, Jharkhand and MCIT, Government of India. The project is implemented in a Public Private Partnership Mode initially in three districts of Jharkhand, i.e. Bokaro, Dhanbad and Garwah. The initiative provides information on production and protection technology, market condition, agriculture bank loan facilities, insurance, weather related information in their local languages.

E – Gram initiative in Orissa, is a channel to provide information through internet and intranet connections. It has been initiated by the joint efforts of the District Collector and District Rural Development Authority, Ganjam, Orissa. The project has enabled the access of information to all the 22 blocks via NICNET

from National Informatics Centre, Berhampur and DRDA. The initiative provides information on the status of various developmental schemes, social security measures and the like. The information may be accessed by the Higher Officials at State Head Quarter, Rural Development Ministry, GOI and the public.

Sahaja Tathya Mitra is implemented in West Bengal. Information services and products ranging from e-governance services, information services, utility services, payments, deposits, insurance, other financial services and a host of e-information e-learning facilities and other products/services as may be decided by SAHAJ from time to time are delivered through the CSCs. There is one CSC for every six villages. A CSC in a village is completely operated by the Village Level Entrepreneur (VLE) and is monitored by the Regional Control Centre (RCC) and Central Control Centre (CCC). The idea is to develop a platform that can enable the Government, private and social sector organizations to integrate their social and commercial goals for the benefit of the rural population in the remotest corners of the country through a combination of IT as well as non-IT services.

Service Provision at CSC

All the three Common Service Center initiatives provide different types of services under the broad category of G2C (Government to Citizen), G2B (Government to Business), G2G (Government to Government), B2C (Business to Citizen), B2B (Business to Business), etc.

Provisioning Government to Citizen (G2C) Services

Linking government service delivery through the CSCs is of critical importance for the success of the project. However, this may not be enough to sustain the financial viability of the project. Consequently, focus has also been given to those B2C verticals that would ensure steady revenue stream for the CSCs. Whilst at times it appears as if some CSCs are only about private services, and therefore should not be perceived as a success story, it is important to recognise that in the first place, it is important for a centre to be viable, and a VLE to earn a livelihood. The wider basket of services can flow only thereafter.

In order to achieve this, a number of leading private and public sector organisations have been engaged to utilise CSCs as a platform for their businesses. Some key areas where content and service partnerships have been undertaken are: microfinance, insurance, education, agriculture, health, telecom, and retail. However, it is evident from the various activities that CSCs have been providing various services in the rural areas and providing an access point where rural people would be empowered enough to take their own decision and improve their quality of lives with sustainable growth.

Provisioning Business to Consumer (B2C) Services

The Business to Consumer (B2C) services include different services including IT services which include Printing, Scanning, DTP, web surfing, etc. and Agri business services which include consulting, testing, information, Input sales, procurement, etc. Direct consultation with the agriculture experts, video conferencing, etc. is possible through the CSCs. Through CSCs, bank loan is quite easy to obtain for the farming community with easy procedures, along with other financial services like loans from third party, money deposits, micro-finance services, etc.

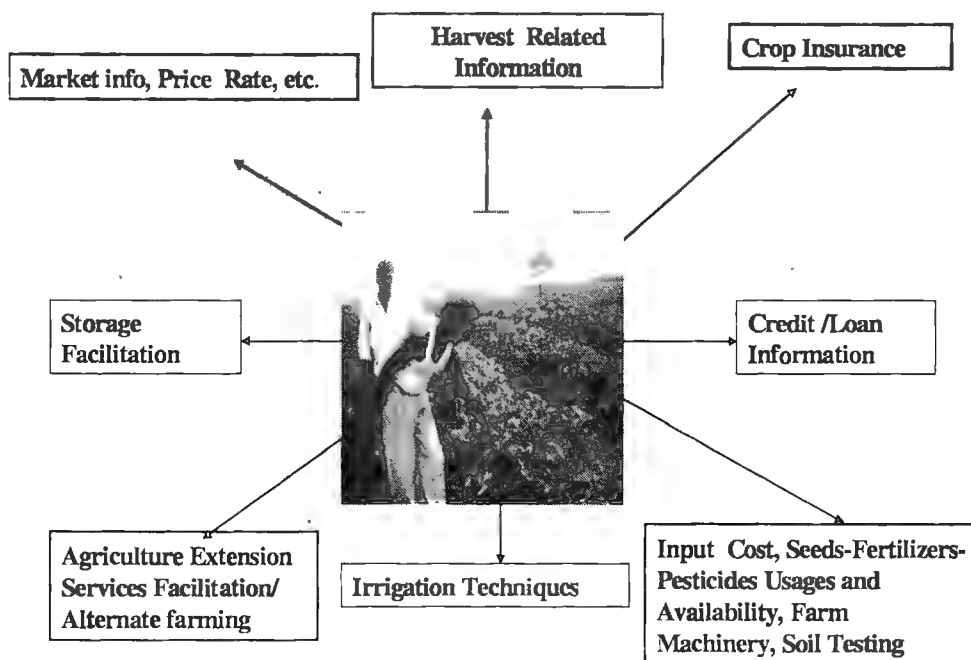
Under the business services, CSC provides telecom services like PCO, post/pre paid phone connections, mobile phone sales and commercial services including matrimony, astrology, and retail sales including consumer goods, durables, vehicles, etc. Importantly, through CSCs, education services i.e. IT training, spoken English and health services including tele medicine, referral services are provided. These services are widely popular in the remotest areas where people do not have access to basic education and health services. Last but not the least, e-Commerce is a major feature of the Common Service Centres. e-Commerce provides them online shopping, trading and e procurement facility in the rural areas where farmers have less access to a proper market and hardly get a proper price for their products.

Common Service Centres provide different services to the people in the rural areas. Different states have different services provided through their Common Service Centres. However, the major aim is to bring transformation in the rural areas and empower the rural population. The other services the farmers get through CSC include: e government, education, telemedicine, entertainment, etc. Under the education services, training is provided to the farming women for their skill development in the field of entrepreneurship generation. Women are being trained in the CSCs to take up farm business and to operate CSC. Basic education is provided to the farmers for their literacy through the CSCs.

Through CSCs, rural people are provided with different services. While CSCs of Jharkhand and West Bengal provide railway ticket to the rural people while linking with the IRCTC, the CSC of Orissa does not have the scope for it. CSCs of Orissa do not even provide the services like payment of water bill, bus pass/ticket, passports, etc.

Under the Government to Citizen services, CSCs become the channel of communication between the government and citizens. The citizen avails different facilities like land records, birth/death certificates, various forms for jobs and others. Through CSCs, people are entitled to put their complaints and grievances to the concerned authority or departments. CSC in this regard, plays a channel of communication between the service provider and the end user. However, the rural people pay the bills of all types including water, electricity, telecom, etc.¹ In addition, people gets their licenses, permits, subsidies and pay their property taxes and its registration and avail services like booking of bus pass/ticket, railway tickets, passport, etc. These services are provided to the rural people for availing various government services and participate in the governance process. While making a comparison of three CSC based initiatives, it is seen that service provision is different.

Services Provided to Farmers through CSC



¹ In West Bengal, 89,462 electricity bills were collected through the CSCs in the month of April, 2009, with a total revenue collection of INR. 2.2 crore. Similarly, 3,640 telephone bills were collected with revenue of INR 12.15 Lakhs.

Sustaining Business Scope to Rural Population

Beyond these services, people in rural areas avail the facility of finance related information as well as bank loans, insurance (crop insurance), education, agriculture, health, telecom, and retail, etc. through the CSCs. Educated youth are given employment opportunities and skill development training. CSCs are taken as a suitable platform for a number of leading private and public sector organisations for their business strategies.

States like Orissa, Jharkhand, West Bengal, Haryana, Maharashtra, etc., CSCs have become a major channel of communication between the government and citizen in provisioning all sorts of information, bank loans, computer education, etc. A tripartite agreement between the SDA, SCA, and Indian Railway Catering and Tourism Corporation (IRCTC) has been initiated in Jharkhand, Haryana and Maharashtra which involves railway ticket booking services through the CSCs. CSCs are organising various health camps through government and private hospitals to improve the quality of healthcare in rural India.

CSC: a Key to Women Empowerment in Rural Areas

Women farmers are given training to go for craft making, product making out of jute, cotton, and leaf plates making and rearing of honey bee, etc through Common Service Centres. This has changed the life style of women in the rural areas who had no other work after farming. Now along with agriculture practices, women farmers sit in community centres and prepare different crafts and generate revenue. Through CSCs farmers are encouraged to go for mushroom production, pickle preparation which provides them huge profit. With this money, rural women can save money in the bank or give loans to their fellow members with limited interest rates. They perceive it as one type of investment through which they can regenerate revenue.

For educated women, training is provided to increase their entrepreneurship skills. They are given computer education training to manage the kiosk or to go for better job opportunities. Training is also imparted to become field coordinators or Sanchalaks or intermediaries between the farmers and the agriculture experts. They also conduct awareness programmes for various government schemes and help people to get the benefits from the CSCs. It is important to mention here that CSCs have helped rural women in revenue generation, employment opportunity, independent decision making, wider social participation and their perception towards overall independence. In this case, an important example can be given while citing the best practices of Sahaj Tathya Mitra Initiative of West Bengal state where rural women are given training as well as education for their economic independence.

Delivering Agriculture Insurance/Loans to the Farmers

The Common Service Center is a major platform through which rural farmers are provided with bank loans and crop insurances. Though bank loan is a necessity for almost all the farmers to start their cultivation, CSC provides them loan without delay at their nearest station. Getting loans from the CSC is easier as the loan procedure is simple unlike the banks, and farmers do not need to travel a long way for bank loans. It is also important to mention here that through CSCs, farmers secure their crop to avoid crop failure. Crop insurance is a major achievement for farmers in local areas which has provided them confidence. Now a days, farmers feel that they can sustain themselves with any agriculture related crisis caused due to natural calamities like drought, flood or sudden unwanted rain fall, etc. In this context, CSC's role is to bring awareness among the farmers about crop insurance. In awareness building, *Pragyan Kendras*, the CSCs of Jharkhand have brought wide awareness among the farmers resulting in many people going for crop insurance before cultivation. This has also led to a decrease in farmer's suicides.

CSC has a major role in empowering rural people through providing them minimum facilities at their doorstep. The Government of West Bengal from July, 2010 started a new plan which has the provision of paying telephone bills and electricity bills through CSCs. To make the process hassle free, Bharat Sanchar Nigam Limited (BSNL) - West Bengal circle signed an agreement with Srei Sahaj e-Village Limited and West Bengal State Rural Development Agency of Panchayat and Rural Development department.²

CSCs also provide agriculture related inputs like HYV seeds, fertilizers and pesticides at government rate. Farmers get all the advice on inputs from the CSC and the input costs are lower than the market rate. The *Pragyan Kendra* of Jharkhand and *Yuva Kendra* of Orissa provide different HYV seeds of paddy wheat, and different vegetables. Along with provisioning agriculture inputs, agriculture procurement is another service provided to the farmers through CSCs.

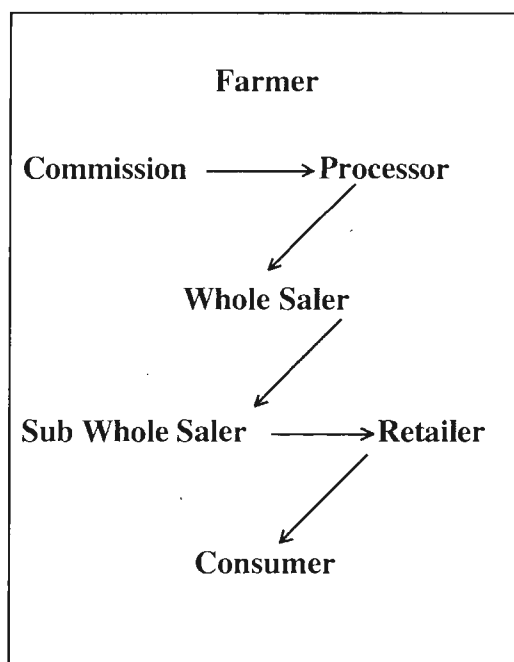
Agriculture Procurement through CSCs

Procurement of agriculture products is an important action taken up recently by the Government of India while making the CSCs as a suitable platform.

² The agreement aims to enable the rural mass to submit their landline and mobile phone bills through common service centers or Sahaj Tathya Mitra Kendras set up by Srei-Sahaj e-Village Limited across fourteen districts of the state under the National e-governance Plan (NeGP). To avail the service, one needs to go to the nearest CSC located in gram panchayat office or block office whichever happens to be within their reach. Source: The Statesman, Kolkata Edition, June 11, 2010.

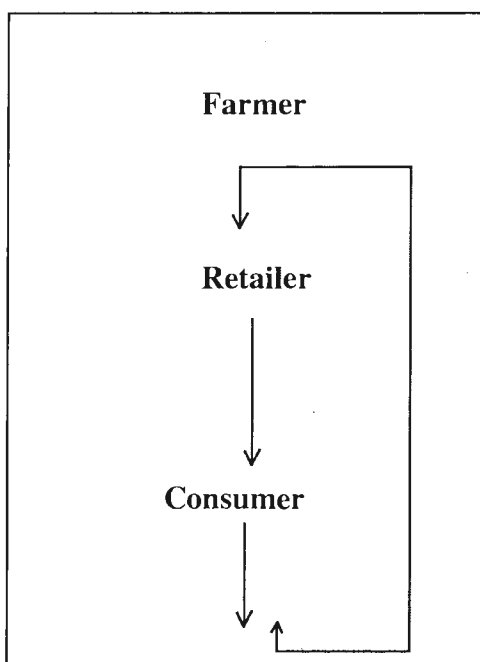
Agriculture Procurement before and after CSC

Before



(Intermediaries take 75% of the profit)

After



(Maximum profit goes to the farmer)

(Source: Field study in Jharkhand, Orissa and West Bengal-2009-11)

Hence, the comparative tables indicate that there is a significance change in maximization of profit by the producer who is the farmer and at the last end it is the consumer. Before intervention of CSC, there are multiple intermediaries involved in the procurement of food grains or products resulting in

- High level of wastage due to improper packaging,
- Lack of transparency on the exact market price, demand, availability, consumer preferences, etc.
- Poor Infrastructure including storage, packaging, and transportation, etc and
- Poor market linkage and poor market related information.

An Overview of Farmers: Eastern Zone

As part of the study, in the eastern zone, a total of 230 farmers were interviewed of which 47.83 per cent were beneficiary farmers and 52.17 per cent were non

beneficiary farmers. The average age of the farmers interviewed is 41 years and majority falls in the age group of 31-50 years. The present age group is found to be dynamic, with more enthusiasm for profit making from agriculture and ready to take any risk for higher production and profit. However, unlike the north zone, a majority of farmers of the eastern zone belong to marginal farmers' category having very few lands. As observed in the field though they have little land, they work either in other's land or go for leasing. Maximization of profit is not always possible for the farmers in this region. As a result, farmers in this region go for intercropping due to less availability of land with them.

Variables	Ist Rank	IInd Rank	IIIRD Rank
Age Group	31-50 (41%)	21-30 (31%)	51-70 (26%)
Gender	Male (55%)	Female (45%)	
Education	Illiterate (48%)	Middle School 15%	High School (14%)
Family Type	Nuclear-71%	Joint - 29%	
Occupation	Agri - 63%	Agri+Private-21%	Agri + Allied - 15
Possession of ICT	Radio – 52%	Mobile – 45%	Newspaper – 41%
Preferred mode of info	Pictorial – 50%	Spoken – 38%	Read – 11%
Willingness to Pay	Yes – 68%	No – 32%	
Land Size	Marginal – 55%	Large – 9%	Small – 8%
Farming Experience	11-20 Yrs - 40%	Upto 10 Yrs -31%	21-30 Yrs - 19%
Major Crop	Paddy	Vegetables	
Priority of Info (Crop Wise)	Production Tech	Govt. Schemes	Market Information
Source of Information	Local Input Dealer – 95%	Friends & Neighbor – 85%	NGO – 47%

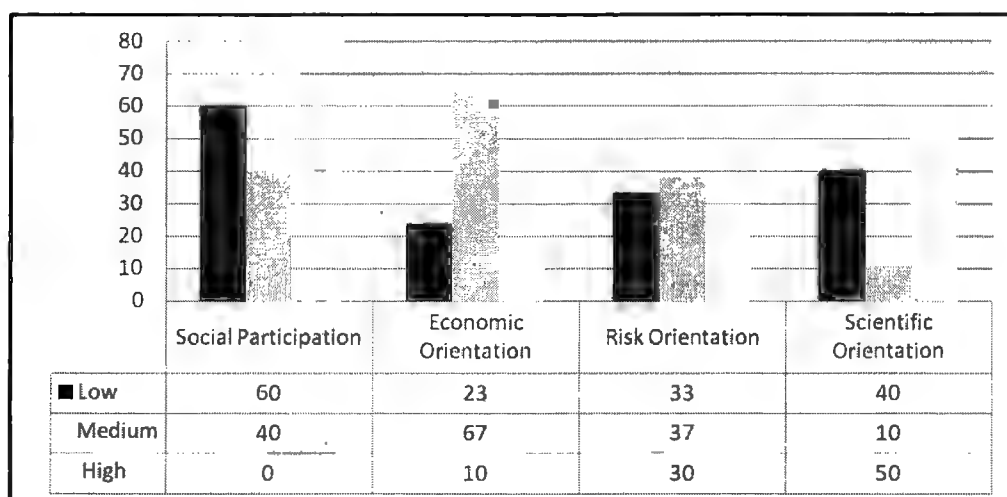
Source: Field Analysis of Data: Eastern Zone

Majority of farmers interviewed in this region are illiterate (48 per cent) and having almost nuclear family (71 per cent). However, in regard to their attention to high productivity and profit out of the agriculture sector, majority of farmers prefer to go for wider uses of technology and other tools. They feel that though agriculture is their main source of income, they should take all steps to strengthen it. Most importantly, technology penetration is quite slow in the region due to its location. Therefore radio is a widely used technology among the farming community in the region (52 per cent) followed by mobile (55 per cent) and news paper (41 per cent). Though the farmers widely use radio in the region, 50 per cent farmers say that they want information in pictorial mode followed by spoken mode (38 per cent) and text mode (11 per cent).

Impact of CSC on Farmers

IT Mediated Agriculture Extension System in Jharkhand

To understand the impact of the CSC on farmers in selected area of Garwah district of Jharkhand, an impact analysis was done based on the farmer's level of orientation towards the initiative vis-a-vis agriculture. Under the analysis, four different parameters (social participation, economic orientation, risk and scientific orientation) were selected and analysed. The study revealed that although the Initiative has 60 per cent low impact on social participation, regarding economic and scientific orientation, the initiative impacted 67 per cent as medium and 50 per cent high orientation.



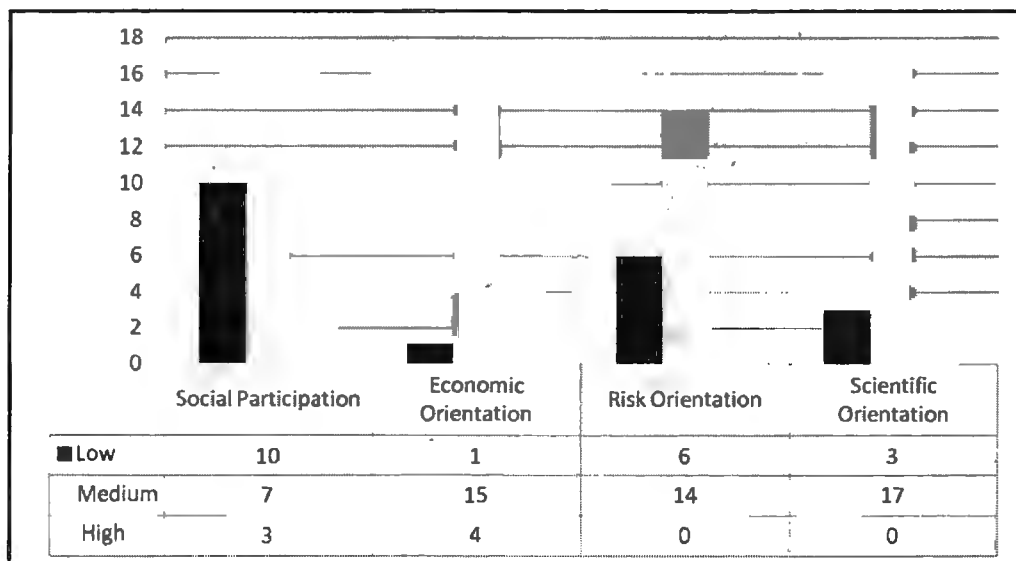
Source: Analysis of Field Data from Jharkhand; 2010-11.

The above figure indicates that the initiative has enabled farmers in taking higher risk in agricultural production and for profit. Secondly it has motivated the farmers to look at agriculture from a business point of view rather a means of livelihood. Even though majority of the farmers are illiterate, they revealed that in their agriculture practices, due to ICT initiative they have adopted scientific method in high production and profit generation. Not only this, the initiative has improved their quality of life while improving their economic condition. As the economic condition has improved, the farmers are ready to accept risk in going for higher investment in their agriculture practices.

Sahaja Tathya Mitra in West Bengal

While understanding the impact of Sahaja Tathya Mitra Kendra (CSC) of West Bengal on the selected farmers of the sample villages, it is observed that the impact of the initiative is slightly different from the Jharkhand experience. It

is revealed by the farmers that ICT has a positive impact on the social life of the farmers which led to their wider participation in public life. Regarding economic orientation, the Tathya Mitra Kendras have helped them in getting more productivity and profit while providing farmers on time farm related inputs.



Source: Analysis of Field Data from West Bengal, 2010-11.

As observed from the data from the field, 15 per cent of the farmers revealed that due to Tathya Mitra Kendras, they are able to access information on time and obtain profit. Access to market rates, bank loan, selection and availability of quality inputs is available at their door step. Due to on-time information, they are able to save money which was earlier spent on fertilizers, pesticides and manpower. Not only that, due to Tathya Mitra Kendras, they are able to get sufficient price for their products and able to store it for the appropriate time/market rate.

Beyond social participation and economic orientation, the initiative has facilitated farmers in taking higher risk in agricultural practices and adopting a scientific method in agriculture for more production in less time and limited resources. Even though majority of the farmers are illiterate, they revealed that it is because of the Tathya Mitra Kendras, that they are able to widely adopt science and technology in their field for more production and profit. Through CSC, they also have access to web information, on-field suggestion from the experts, etc.

Due to the above reasons, CSCs have been given responsibilities in the rural areas to procure food crop directly from the farmers so that the farming community will get maximum profit and will be away from exploitation by intermediaries. Different fruits and crops are procured from the farmers. For

example in Katewadi area of Baramati district of Maharashtra, farmers sell grapes and pomegranate in the CSC while farmers in Garwah district sell their vegetables at the CSC rather than taking it to the market.

Opening up Common Service Centers is a major agenda of the Government of India to bring an equitable, non discriminative, transparent, accountable and responsive administrative system. To achieve all these targets, CSCs are deployed as an important tool for empowerment of rural weaker sections while making them participate in their day to day lives. Though the objectives of CSC have not been achieved completely, as it is in the early stages of operation, it is important to mention here is that it has significant impact upon the rural community. It has not only become a suitable platform for information dissemination, but has also enabled the rural population in decision making and having a share in the profit making. CSC has a major role in bringing the rural people and their problems to the outside world and also providing them a proper solution at a proper time. However, government should utilise CSC as a major enabler for empowerment of rural people while strengthening the infrastructure of CSCs and providing more services through these centres.

Acknowledgement

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References

NSSO, 2005. National Sample Survey Organisation Report (NSSO), Government of India.