E-Governance through Collaborations - A Case of NICNET based Agricultural Marketing Information Network (AGMARKNET)

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Abstract

In this paper an attempt is made to conduct a strategic analysis of NICNET based Agricultural Marketing Information Network (AGMARKNET) - an e-governance programme initiated as a major component of a Centre Sector Plan Scheme of Ministry of Agriculture. Based on the analysis, the paper aims at explaining the importance of adopting a collaborative approach for realizing the ambitious goal of empowering the farmers with market information through this programme.

INTRODUCTION

Governments throughout the globe are trying to shift to e-governance mode for improving internal functioning as well as strengthening external interfaces. The changeover is, however, not smooth as e-governance demands radical changes in the traditional and established ways of executing Government business. It is, therefore, not surprising that only 15 per cent of the e-governance initiatives in the developing countries have been found to be successful (Heeks, 2003). The situation in India also seems to be similar as there has been only limited success so far. The vertical and horizontal integration of services — the essential characteristics of matured e-governance (Layne and Lee, 2001) — seem to be a distant dream in the Indian context.

In order to reach the mature e-governance stage in a reasonable timeframe, it is required to look for developing synergetic relationships within and across the departments and leverage ICT for integrating backend government processes

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for providing a single window interface to citizens. As an illustration, let us take the case of agriculture sector which provides livelihood to nearly 2/3rd of Indian population. Government of India has been constantly emphasizing on higher growth of this sector during the successive plan periods. Agriculture being a state subject as per Indian constitution, the prime responsibility of development of agriculture lies with the respective State Governments. The Central Government's role is limited to taking national level policy measures and augmenting the efforts of State Governments through various instruments like centrally sponsored or centre sector plan schemes. However, the scattered and multiple plan schemes have not been yielding the desired level of results due to lack of co-ordination and cohesiveness among various entities in our federal structure (Tenth Five Year Plan, 2002-2007). The traditional framework, which treats plan schemes as department specific, has also affected the performance of e-governance programmes by ignoring the fact that a citizen centric service may cut across different departments.

The basic operating framework of plan schemes of both the Central/ State Governments, therefore, needs to be re-oriented by building appropriate linkages among them and exploring possible areas for collaborating with corporate sector to tackle resource constraints (An approach to 11th five year plan, 2006).

METHODOLOGY

This paper is based on synthesis of the practical experience gained during the implementation of the ongoing AGMARKNET project, learnings from a review of literature and two exploratory studies conducted by the authors in the recent past.

AGMARKNET: Project Brief

The importance of timely availability of agricultural markets related information to the farming community is well recognized (Acharya 2004, Dhankar 2003). In India, there are about 7000 Agriculture Produce Wholesale Markets (APWMs) where the farmers bring their produce with the expectation of getting better returns.

The APWMs, spread all over the country, are autonomous bodies operating under the respective State Marketing Boards/Directorates (SMBs). These

markets are required to maintain the information pertaining to daily transactions. In the conventional system, market prices and arrivals information used to remain confined in the registers maintained in the markets. There was no mechanism or willingness to share the latest information for the benefit of various stakeholders across the country.

Recognizing that access to a sound agricultural marketing information system can empower farmers and bring them in better bargaining position, Directorate of Marketing and Inspection (DMI) Government of India, initiated a project – NICNET based Agricultural Marketing Information System (AGMARKNET) during the year 2000. The project was launched in the form of a Centre Sector Scheme during IX plan period. The project, being executed by the National Informatics Centre (NIC), has made rapid strides since then. The project scope was extended from initially approved 710 nodes to network another 2000 markets by the year 2007. Over the past six years, the target markets have been sensitized through regular capacity building programmes for sharing information. As on February, 2007 about 1500 markets are reporting market information to the portal http://agmarknet.nic.in. The portal is in public domain and is accessible through internet. However, even though an Information and Communication Technology (ICT) based system has been established to collect, collate, analyse and disseminate country-wide market information on daily basis, the information is yet to reach the grassroots.

A recent evaluation study conducted by the College of Agri-business Management, Pant Nagar has found that though there are instances of benefits accruing to different stakeholders, the service is yet to reach farming community at large. The prime reasons have been identified as illiteracy, lack of awareness and lack of means to access information. As such, it can be inferred that the portal service is yet to achieve its real purpose. This limitation needs to be immediately addressed to avoid further widening of the digital divide between the resourceful and the underprivileged sections of our society.

Keeping into view the intricacies associated with implementing centrally initiated ICT projects in a federal structure, it is important to carry out an external and internal environment analysis in the context of this project before venturing into its further expansion. A SWOT analysis of the project is carried out in the next section to arrive at a suggestive approach to fill the aforesaid digital divide.

SWOT Analysis

The project was initiated with the strategic goal of bringing better returns to the farmers for their produce by empowering them with latest market information (Operational Guidelines, 2003). This ambitious goal cannot be achieved through ICT intervention alone. The other important Government initiatives on structural reforms in agricultural marketing have also to mature before the farmers at large can make real use of the information emanating from the portal service. Some of such initiatives are re-formulation of State agricultural marketing acts to support the liberalized trade environment, establishment of storage facilities in rural areas, strengthening of agricultural marketing related infrastructure and national warehouseing receipt system. However, focus of this paper being on e-governance, we have confined the SWOT analysis to AGMARKNET project only. The analysis is brought out in Table 1.

Table 1: A SWOT Analysis of AGMARKNET

Strengths	Weaknesses
• First mover advantage • Capability built in the form of a unique network in the country • Rare example of ICT based collaborative framework in a federal structure (Co-creation and Integration) • 1500+ markets reporting data regularly and the number is growing • A national market information database of about 300 agricultural commodities and 2000 varieties to serve planning and decision making at various levels • Replicable client application and flexible database design	• Operating in rigid Government framework with limited resources. • Absence of self-sustaining framework. Presently the portal is supported by budget allocated under a plan scheme. • Absence of shared mission across the states (markets across States perceive their role as merely information pusher – lack of interdependence). • Operationalization delays at certain location. • Irregular and unreliable flow of information from certain markets. • Adding to digital divide in the present stage due to lack of forward linkages. • Inadequate support for localization of contents and inadequate analysis of information to serve different stakeholders.

Opportunities	Threats
• Recognition as 'Mission Mode Project' under National e-Governance Plan (NeGP) • Government's thrust to reorient agricultural marketing system • Increased importance of market information in the changing agricultural marketing scenario • Flourishing commodity futures which require nation-wide market prices • Growing number of agri-business firms • Increasing number of kiosk operators in rural areas • Country-wide strengthening of ICT infrastructure including Common Service Centres under NeGP and fast spreading reach of mobile phone operators. • Other schemes of DAC (e.g. Marketing infrastructure strengthening, Rural Godowns, National Horticulture Mission, AGRISNET, Revamping of agricultural extension system, Kissan Call Centres etc.) which offer possibilities of building synergetic relationships. • Recognition at national and international levels	• Lack of project ownership by few states and participation by other divisions of DAC. • Emergence of companies offering market information services in agriculture sector

Emerging Focal Areas

Based on the SWOT analysis, it has emerged that the implementing agencies have to concentrate on two key areas viz. content enrichment and content accessibility. The portal contents need to be strengthened by including commodity specific market intelligence reports, profiles of all commodities of commercial importance, local language interfaces, commodity specific buyers and sellers information, advisory service to farmers, alerts to centre and state level agricultural

departments by integrating market data with other agricultural databases e.g. area, production, land use, seeds, pesticides, GIS based interfaces to aid the planning and decision making process etc. Internet penetration being poor in rural areas, channels other than internet need to be explored for reaching the grassroots.

NEXT STRATEGIC PATH

The Directorate of Marketing and Inspection has built a unique capability in the form of an ICT based system to facilitate daily market information collection and dissemination from several wholesale markets in the country. The national database evolved under the project comprises daily prices and arrivals information in respect of about 300 commodities and 2000 varieties. With the system in place, DMI's strategy should be to transform the capabilities built into a sustainable competitive advantage for the country. This can be achieved only when the portal service is able to cater to the information requirements of various stakeholders. The limited resources of DMI, NIC and SMBs are just not sufficient to meet this expectation. For this, the project has to cross the boundaries of the involved organizations viz. DMI, NIC and State Marketing Boards. The available Government infrastructure has to be amortized and the project needs to be managed like a successful entrepreneur manages its portfolio of businesses. This would require building of appropriate linkages with both corporate and public sector organizations to contribute meaningfully to the ambitious strategic goal of uplifting the farming community.

The overall guiding principle should be to build a network of alliances around AGMARKNET for enriching the contents and ensuring accessibility of the portal service at the grassroots. We have attempted to identify few such target organizations in Table 2 and Table 3.

Table 2 : Suggested agencies for making Collaborations for Content Enrichment. Source : Suri (2005)

S. No.	Agency	Expected Benefits
1.	Commodity Directorates	Updated commodity profiles
2.	Commodity Boards	Effective monitoring of the prices/arrivals situation for respective commodities
3.	National Institute of Agricultural Marketing	Enrichment of portal with market research findings
4. 5.	Indian Agricultural Statistics Research Institute, Directorate of Economics & Statistics	Value addition with statistical analysis of market information
6.	Indian Council of Agricultural Research	Latest crop research information on the portal
7.	National Horticulture Board, Agricultural and Processed Food Products Export Development Authority, Marine Products Exports Development Authority, Indian Institute of Packaging, National-Agricultural Co-operative Marketing Federation of India Ltd., National Co-operatives Development Council, National Dairy Development Board, National Bank for Agriculture and Rural Development, State Trading Corporation, World Trade Council, Tribal Co-operative Marketing Development Federation of India Ltd. Export Promotion Councils etc.	Customised access to agricultural Marketing promotional initiatives taken by other organizations for dissemination as a single window service; e-commerce; Strengthening of forward linkages
8.	Inter Ministerial Task Force Commerce, Health, Consumer Affairs, Food, Food Processing Industries, Consumer Affairs, Rural Development	Instant sharing of decisions (by other Ministries) which have impact on Agricultural Marketing
9.	Commodity Exchanges	Sharing of future prices database; Promotion of e-commerce in agriculture
10.	International Organizations eg Food and Agriculture Organization,Codex Alimentarius Commission	Access to information on quality and food safety standards and international market trends

Table 3: Suggested agencies for making Collaborations for Breaking the Internet Barrier for Widening the Reach. Source : Suri (2005)

S. No.	Agency	Expected Benefits
1.	Mobile Phone Operators	Access to million of users without any further investment by Government
2.	Commodity Boards	
3.	National/State Institutes of Agricultural Marketing	Awareness among farmers and market functionaries visiting the institute
4.	National/State Institutes of Rural Development	Awareness through publications in local languages
5.	Indian Farmers Fertilizers Co-operatives (IFFCO) and other such agencies/co-operatives	IFFCO has about 37000 farmers co-operatives, ~ 500 farmers service centres; planning to diverse into e-commerce; installing farmers friendly kiosks at strategic locations. Cooperatives in rural areas can play a major role in widening the reach of AGMARKNET
6.	Krishi Vigyan Kendras	Direct access to farmers
7.	Other Agricultural Extension related institutions of Centre and State Governments	
8.	Kissan Call Centres	Direct access to farmers through toll free no 1551
9	Agri Clinics Community Information Centres (CICs)	Reaching the rural masses
10.	Agencies operating information kiosks in rural areas	
11.	All India Radio	Conventional means have much wider reach and are more popular
12.	Local Newspapers	
13.	Cable TV networks	
14.	Doordarshan	

GUIDING PRINCIPLES FOR BUILDING A COLLABORATIVE FRAMEWORK

Collaboration as a strategy is commonly being practiced in the corporate world to beat the ever growing competition or attain higher levels of business growth. There are ample examples where even competitors have joined hands for enhancing their capabilities for sustaining business (Hamel and Prahalad, 1989). Government organizations on the other hand are non profit making, attuned to function in silos and prefer to maintain their strategic autonomies. As such, non equity based strategic alliances, seem to be the appropriate way of establishing collaborative linkages among them as also with the corporate sector. Thrust should primarily be on learning from such arrangements and creating value for better delivery of service to the society at large. It should also be kept in view that alliances are successful only when they create perpetual strategic value for all the involved partners. Taking clue from high failure rate of alliances (Kalmbach and Roussel, 1999), aspects like partner analysis, alliance structure, roles and responsibilities, distribution of value, conflict resolution, monitoring and evaluation, shared mission, vision and strategic objectives (Lasserre 2005, Kanter 1994) need to be carefully looked into for ensuring alliance success. Two important areas which require greater attention in the case of AGMARKNET are as follows:

Revenue Sharing

AGMARKNET has been launched to achieve the social objective of uplifting the farming community. Besides farmers, there are several other entities for whom information available on the portal is of immense value. Keeping in line with the basic objective, Government should continue with the policy of keeping this portal for free access in public domain. However, the free service should be restricted to farmers and non profit making organizations working for the cause of farmers. Profit making organizations may be charged for portal service. Such an approach will make the project self sustainable besides leading to improvement in quality of market information as the consumers will be more demanding when asked to pay for services.

## Database Repository and Ownership

Market information especially the commodity prices and arrivals is sensitive

as it affects the demand-supply situation. The national repository should therefore be continued to be maintained by NIC to avoid inconsistencies that might creep in when the database is allowed to be replicated at multiple locations under the control of different organizations.

A Model Alliance Framework for Government Organizations

A framework of alliance among four Centre Government Organizations viz. Directorate of Marketing and Inspection, Directorate of Economics and Statistics, Department of Consumer Affairs and National Horticulture Board is arrived at as follows:

Exhibit 5: Alliance Framework
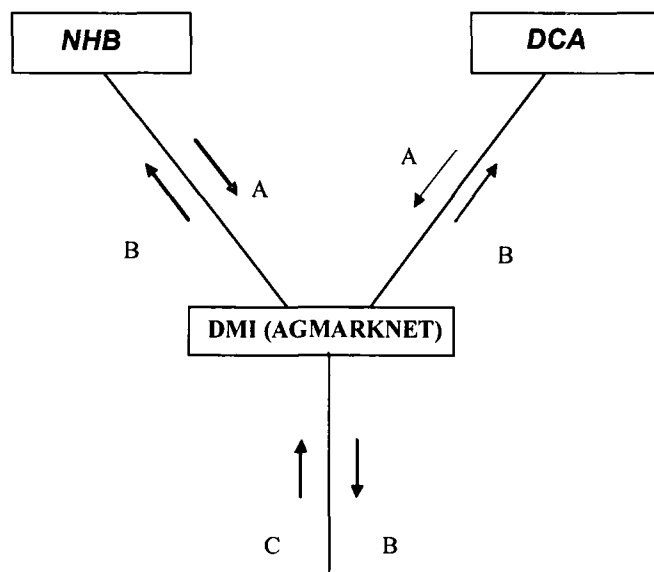
Binding Links

A : Monitoring and co-ordination for reliable inputs and wider dissemination

B : Latest market information, customised analytical reports, wider coverage (commodities, markets), wider dissemination

C : Statistical methods for improving reliability, market and commodity bulletins, Decision Support System

Source : Suri and Sushil (2006)

For a detailed description of the features of alliance, likely benefits and alliance governance, please refer (Suri and Sushil, 2006).

CONCLUSION

In the conventional planning framework, e-governance projects are being perceived as having one to one correspondence with Government departments. However, citizen centric services generally span across different departments. A strategic analysis of the AGMARKNET initiative of DMI has revealed the importance of adopting a collaborative approach for meeting the challenging goal of uplifting of the farming community. In general, this suggests need for re-orienting the strategy for implementing e-governance projects by looking beyond the boundaries of individual Government departments.

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