

KNOWLEDGE MANAGEMENT AS STRATEGIC COMMUNICATION: A MODEL FOR EVALUATING K-AGRINET

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ABSTRACT

ICTs are highly touted as enabling mechanisms for development. These technologies are considered powerful media that can be expected to improve education, health care and other basic services; provide and expand employment opportunities; encourage popular participation in governance, and thereby promote social and political accountability. In the area of agricultural development, ICTs are important for the creation and management of agricultural knowledge, both modern and indigenous.

*K-AgriNet “an e-government funded program supported by the Commission of Information and Communications Technology (CICT) aim(s) at developing and modernizing the country’s agricultural sector.” This paper views the program as a **knowledge management program** that introduces ICTs as tools for people in the agricultural sector as well as a **communication strategy** whose activities involve the development of information packages, capability building, social mobilization, etc.*

Hence, a proper evaluation of K-AgriNet necessitates assessment of the program as both a knowledge management system and a communication strategy. This paper proposes a framework that integrates strategic communication principles with knowledge management concepts and processes.

INTRODUCTION

THE ROLE OF ICT IN RURAL DEVELOPMENT AND FOOD SECURITY

Information asymmetry in Philippine agriculture

In the Philippines, which is still largely an agricultural economy, a long-standing problem among farmers and agri-business entrepreneurs is their limited and unequal

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access to relevant information (e.g., new varieties of seeds, innovations in production and harvest technologies, availability of credit, current prices, market trends, new marketing practices, etc.). The information needs of these agricultural players, especially those in rural areas, have traditionally been provided by extension workers whose information dissemination efforts can be described as a trickle-down process.

ICTs as tools to correct information asymmetry

The emergence of information and communications technologies (ICTs) has provided new platforms and enabling mechanisms for development. For the purpose of sustainable agriculture, ICTs are important instruments to correct information imbalances among agricultural players.

These technologies, most particularly those that are Internet-connected and capable of providing online information in real-time, deliver the latest information necessary for farmers to improve productivity and raise agricultural incomes. As one development specialist pointed out, “although the Internet is not a panacea for rural development problems and food security, the Internet can open new communication channels that bring new knowledge and information resources to rural communities.”²

ICTs as tools to correct knowledge asymmetry

Apart from radically changing the modes of information delivery, ICTs permit new ways for knowledge construction. For the purpose of sustainable agriculture, ICTs can perform critical roles in correcting knowledge asymmetry among agricultural players

² Hilda Munya, (nd). *Information and Communication Technologies for rural development and food security: Lessons from Field Experiences in Developing Countries*. Retrieved July 25, 2006 from FAO Website: www.fao.org/sd/CDdirect/CDre0055b.htm

as they make possible the creation, management, and sharing of knowledge – both modern or scientific and traditional or indigenous.

HARNESSING ICT FOR PHILIPPINE AGRICULTURE

K-AgriNet as development tool for people in the Philippine agricultural sector

The Philippines' agricultural program, KNOWLEDGE NETWORKING TOWARDS ENTERPRISING AGRICULTURAL COMMUNITIES or **K-AgriNet**, seeks to address demands for “more advanced and proactive approach” to modernize the country's agricultural sector through the use of ICTs³. Its website lists the objectives of the program as:

To contribute in creating a modernized and socially-equitable agriculture and fisheries sector by improving access to information and modern and indigenous technology through the use of information and communications technology (ICT);

To improve the status and raise the quality of life of rural farmers/fisherfolk and the lives of their families in the context of a well-informed, information driven, and digitally connected agriculture and fisheries sector ushering a shift from a traditional to a knowledge –intensive farm management;

To link policymakers, researcher, service providers, markets, business organizations, and farm communities in an open environment.⁴

The K-AgriNet program represents the collaboration of four institutions, i.e., Development Academy of the Philippines (DAP), Department of Agrarian Reform (DAR), Department of Science and Technology – Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (DOST-PCARRD), and

³ <http://www.dap.edu.ph/k-agrinet/ak.html#tp> Retrieved 27 July 2006

⁴ <http://www.dap.edu.ph/k-agrinet/ak.html#tp> Retrieved 30 July 2006

Department of Agriculture – Philippine Rice Research Institute (DA-PhilRice). Meanwhile, its target beneficiaries are agricultural workers (i.e., individual farmers and fisherfolk as well as agriculture-based people’s organizations and cooperatives), government and non-government extension workers, private sector business (i.e., agricultural traders, agri-business entrepreneurs) and civil society. Figure 1 shows the program’s institutional partnerships and their corresponding areas of intervention.

Institution	Program Component	Focused Areas	Key Role Players
PCARRD	e-Consortia	Knowledge Generation, Packaging and Exchange	Regional Consortia
DA-PhilRice	Open Academy	Knowledge Packaging for Distance Learning	Extension Workers
PCARRD	e-Farm	Knowledge-Based e-Commerce	FITS/ Magsasaka-Siyentista
DAR/DAP	e-AGRIkultura	Social Mobilization (Micro-Small Enterprising Communities)	Agrarian Reform Communities

Figure 1. Institutional partnerships and interventions⁵

Importance of assessing K-AgriNet as development tool

K-AgriNet’s accomplishments in the aspects of interconnectivity, systems development, capacity-building, social mobilization, and program management are

⁵ <http://www.pcarrd.dost.gov.ph/K-Agrinet/interventions.htm> Retrieved 30 July 2006.

regularly reported⁶. Beyond such monitoring information, more comprehensive attempts are necessary to determine the effectiveness of the program in meeting its goal of modernizing the country's agricultural sector.

What is necessary, in fact, is developing measurable indicators of the program's general objectives to come up with indicators of K-AgriNet's effects, effectiveness, and impact.

TOWARDS A MODEL FOR EVALUATING K-AGRINET

Evaluation being an essential component in the design of development programs, this paper thus proposes an assessment framework that goes beyond monitoring for accomplishments.

CONCEPTUAL BASES

Knowledge management (KM) forms the core of this assessment framework. In its simplest form, KM pertains to the purposeful capture/creation and re-use/customizing of knowledge. While KM is normally associated with organizational learning, it is a useful approach to assessing how successfully K-AgriNet has met its objectives.

Knowledge management and learning stages

KM has evolved from its first-generation incarnation (also called conventional or techno-centric or supply-side KM) which assumes the availability of information or knowledge for capturing and sharing normally through some kind of technology. Second

⁶ See for example, *K-AgriNet Accomplishment as of September 30, 2006*. <http://www.pcarrd.dost.gov.ph/K-Agrinet/index.htm> Retrieved 18 November 2006.

generation knowledge management (SGKM), otherwise called demand-side KM, puts higher premium on producing new – rather than merely codifying existing – knowledge.⁷

McElroy (1999a) adds that “demand side KM ... focus on enhancing the conditions in which innovation and creativity naturally occur.”⁸ McElroy expands the distinction between first and second generation KM with the concepts of single- and double-loop learning. Characterizing first generation KM as single loop learning, he says:

“Conventional knowledge management practice, then, boils down to little more than getting the right information to the right people at the right time.”⁹

On the other hand, McElroy says that SGKM encourage double-loop thinking that “would lead to active constructions of alternative scenarios in which ... promising ideas could be tested and prescribed responses (are) temporarily replaced with new one(s),”¹⁰ For him, SGKM and double-loop learning are superior because new knowledge are created and old ones revised.

Figure 1 illustrates that there are three phases involved in SGKM, i.e., knowledge production, knowledge validation, and knowledge integration with each phase comprised of several cycles of knowledge processes.

⁷ See http://www.kmci.org/the_new_knowledgement.html

⁸ Mark W. McElroy (1999a), *The Second-Generation of Knowledge Management, Knowledge Management*. p. 2. Also available at [http://www.macroinnovation.com/images/McElroyDLKMv3\[1\]](http://www.macroinnovation.com/images/McElroyDLKMv3[1]) Retrieved September 5, 2006.

⁹ Mark W. McElroy (1999b), p. 3.

¹⁰ Ibid, p. 2.