ENSURING PARTICIPATION IN RURAL COMMUNITIES THROUGH KNOWLEDGE MANAGEMENT AND ICT: THE CASE OF BAROTAC-VIEJO, ILOILO

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Abstract: The concept and practice of good governance have contributed to the evolving relationship among the three governance sectors, namely the State, Private Sector and Civil Society. Primarily focusing on bureaucratic reform, current discourses on good governance centers on the State's ability to deliver services to its constituents and harness the potential for synergy among key societal players. Another facet of this discourse is the role of good governance in socioeconomic development. Focusing on the area of participatory governance, an aspect of the discourses on this area treats participation as a vehicle for promoting inclusive growth and the empowerment of the periphery.

With the purpose of ensuring significant participation in community development, this paper looks at the dynamics of participation in selected rural communities in the Philippines. The paper explores the knowledge management practices and possible ICT intervention points in the practice of participation in community development.

Lastly, the study focuses on three selected communities belonging to the Area Specific Development Program (ASDP). ASDP is a community development program administered by the NGO- Kaisahan Inc. in partnership with the Municipality of Barotac-Viejo, Iloilo Province.

Keywords: Knowledge, Knowledge Management, Community Development, Participation, e-Participation and ICT for Development.

I. INTRODUCTION

The passage of Republic Act 7160 or better known as the Local Government Code (LGC) of 1991 is considered as a major breakthrough in the quest for governance reform in the Philippines. Stressing the importance of people's participation in governance, the LGC seeks to empower local government units (LGUs) from the provincial down to the village level (locally known as the "barangay") through the devolution of resources and authority. Devolution of national government functions and resources down to the provincial and municipal levels are the main thrust of the LGC, thus becoming a tool to promote involvement in community-level governance. With the emphasis on empowering the local communities, devolution practices and the eventual empowerment of the periphery are called as Participatory Local Governance (PLG). The idea of PLG brings to the center stage the idea of community-based governance through participation (or involvement) of different stakeholders such as LGUs, Non-Government Organizations (NGOs), Peoples' Organizations (PO), and the private sector. The areas where the PLG approach is being applied are the following: a) political participation; b) social/mass movement; c) democratic participation in governance and d) sustainable integrated area development. This cascading of governance functions and the enlargement of the governance space presents a daunting challenge for advocates of good governance and bureaucratic reform. With this change in governance paradigm comes the concern on how to ensure significant participation from stakeholders.

This paper looks at this challenge using the lens of knowledge management and information and communication technologies (ICT) in supporting participation in communities. The paper treats KM and ICT as enabling tools for PLG.

Using a qualitative-deductive research design, the paper explores the dynamics of PLG practices in community development. Focusing on the practices in Sustainable Integrated Area Development (SIAD), the paper will present possible gaps and application areas for ICT. These application areas are treated as possible opportunities for eliciting participation in community development.

II. OVERVIEW OF PREVAILING LITERATURE

Defining participation is defined as "the voluntary and generous engagement of a person in social interchange", its nature is said to be based on the attainment of the common good [1]. Participation is also viewed relative to the Participatory Theory [2][3] where participation is presented as a collective action of citizens in the context of political decision-making. On a more specific context, Sen (1999)[4] proposes that participation be seen as a development ingredient associated with freedom and democratic practices. Zittel (2007)[5] stresses that participation in governance is a shared responsibility and that such responsibility is essential for social embeddedness of individuals. In social embeddedness, participation is seen as a right or part of one's social responsibility. In these discourses, participation is presented as a vehicle to achieve social cohesion whose goal is to achieve the common good.

Another related facet of the prevailing literature is on the participation's link to human development. Stiglitz (2002)[6] points to the participation's role in human development, stressing that "participation must entail open dialog and broad active civic engagement, providing individuals with a voice in discussions that affects them". Focusing on participation in community development, Buendia (2005)[7] cites the factors

that affect participation as the following: Ensuring historical continuum, levels of poverty, divergence in diversity, conflicts in interest, and ensuring sustainability. While Magno (2010)[8] cites the following factors for ensuring maximum participation: a) Achieving balance with national and local issues; b) Appropriateness of economic projects; c) Sustaining local organizations; and d) Role of NGOs;

Evolving thoughts on Governance and e-Participation

The development of thought in the area of governance can be seen as directly related to the historical development of authority relationship. This relationship with the governor and the governed is said to have an evolving nature characterized by technological, economic, and social dynamism that results in the alteration of the roles and devolution of authority (OECD, 2001)[9] . Equating this evolving nature with the idea of governance as a shared responsibility, Coleman (2008)[10] describes this as a messy proposition given the bureaucratic nature of governments, thus its natural tendency to subscribe to technologies that provide the broadest sense of knowledge, skills, techniques and strategies as well as ICT tools. He further points out that this evolving nature has spread out into new areas as well as aspects of personal relationships (Ibid, p.4). This changing nature of governance is also seen as having an effect with how participation and the role of ICT are defined. Known in literature as e-Participation, the use of ICT in participation is seen in many perspectives, namely as a branch of e-government[11], others treat e-participation as synonymous with e-democracy[12] while other places e-participation as an evolution of e-government practices towards adopting e-democracy[13] (Norris, 2010). Moreover, e-participation is also presented as being composed of sequential phases characterized by degrees of participation and its use of ICT [14]. These on views e-participation shows that as a concept, e-participation is evolving; a concept previously seen as e-service oriented (access-diffusion of service) now includes relationship-building, as evidenced by the use Web 2.0 tools (social media and AVTs) in e-participation [15].

The paper treats e-Participation as part of the ICT4D literature. Subscribing to the concept that information are vital resources for community development[16], this belief requires the identification of problems that can be solved by ICT (social appropriation) and the information needs and demands of stakeholders (information mobilization) [17].

With information being regarded as vital resources, knowledge management is the "dynamic management of information and the process that creates new knowledge for the organization". Nonaka et al (2001)[18] emphasized that knowledge management is a continuous self-transcending process for the organization. Relating KM as a tool for organizational productivity, Brown & Duguid (1998)[19] see KM as a continuous creation & generation of knowledge, which is necessary for the development of the organization's core competencies and enables it to resist dissolution. And lastly, Nair (2005)[20] defines KM in the context of enterprise/e-government view, "KM is a coordinated attempt to tap the unrealized potential for sharing and reuse that lies in an enterprise's collective consciousness."

With the intent of showing that KM practices could lead to significant participation in community development, the paper will use Nair's (2005) KM activities for its analysis of the participation practices in the target communities. Moreover, numerous studies have been done in the areas of KM and community development. Popplow (2012)[21], cites that the use of agriculture-related KM practices in 18th century Europe. Attempts were made to formalize knowledge practices to make it more accessible and use these practices to complement scientific knowledge. Moreover, in recent experience, the value of KM practices was manifested in the use of ecological knowledge in fisheries management by local communities [22]. (Santha, 2008) While Singh and Hensel (2014)[23] stressed the importance of knowledge in improving agricultural practices of selected farming communities in India. The same study also highlighted the importance of extension education to address productivity challenges

In summary, the discussion point for participation in governance as being characterized as an evolving practice. Mindful of achieving the common good, this evolving nature is seen as a "messy proposition" thus the need to utilize available knowledge and skills. The discussions also place an emphasis on the need to harness ICT capabilities. Using the participation factors defined by Buendia (2005) and Francisco (1999) as measures for significant participation, the paper will match possible KM qualities and ICT functions with existing PLG practices in community development to identify the ICT application areas.

III. STATEMENT OF THE PROBLEM

A quick scan of the prevailing literature points to two themes, namely a) the evolving nature of roles and activities related to participation and b) the need to ensure maximum benefits for PLG practices through the use of KM and ICT. With these themes, the paper puts forward the research question:

"*What are the activities by which stakeholders participate in community development?*"

Using ASDP as the LGU program for community development, the paper stresses that knowledge-information resources and the use of ICT are options that can ensure significant participation. With this said, the paper presents its second research question:

"*What are the avenues for KM and ICT utilization in community development?*"

The paper's sample includes three barangays that are part of the ASDP being administered by the NGO Kaisahan in cooperation with the municipal government of Barotac-Viejo.

IV. DISCUSSION OF RESULTS

Municipality of Baroctac-Viejo

The Municipality of Barotac-Viejo is considered as a 4th class municipality with an annual gross income of PhP 34 million. Situated in the northern part of the Province of Iloilo facing the strait of Guimaras and Negros Island. Barotac-Viejo is largely an agricultural municipality. With a total land area of 18,578 hectares, 12,526 hectares are considered as

agricultural land. Farming and fishing are the main sources of livelihood. The municipality is composed of twenty-six (26) barangays and belongs to the 5th congressional district of the Province of Iloilo.

Analysis Results

Figure 1.0 shows the KM qualities for ASDP practices in Barotac-Viejo. Using the critical incidence technique, data gathering activities resulted in the identification of the participation activities in community development through the ASDP. Addressing the question of how communities participate in community development, the following critical incidences in ASDP were identified (Fig. 1.0): a) Community Needs Assessment; b) Project Implementation & Monitoring; c) Impact Assessment and d) Project Sustainability. These incidences were based on the consolidated experiences of the three (3) main stakeholders in the community development process, namely the Community (comprising of Peoples Organization (PO) and barangay participants), the NGO, and the municipal local government (MLGU).

Table 2.0: Summary of participation activities and possible KM applications

Figure 1.0: KM Qualities and Participation practices in ASDP

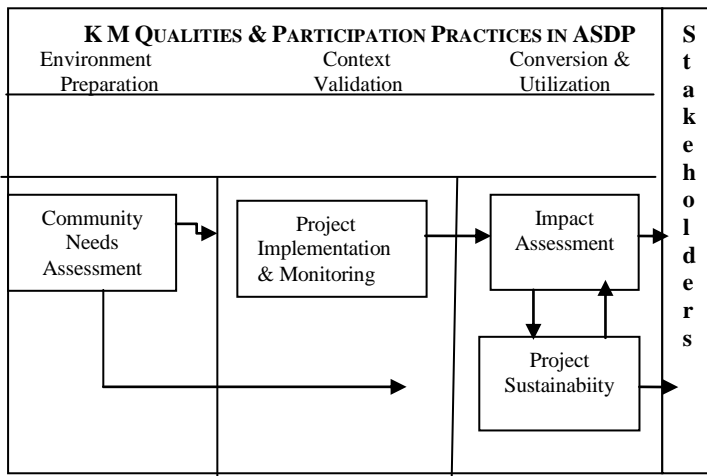| KM Qualities	Description	KM Activities supporting Participation
ENVIRONMENT PREPARATION	This phase is concern with the preparation of the knowledge environment. Takes into account the goals, needs, and demands for community development	• Knowledge Acquisition & sharing
CONTEXT VALIDATION	This phase validates the information that results from the interaction happening within the environment	Knowledge Acquisition & sharing Knowledge Utilization
CONVERSION AND UTILIZATION	This phase transforms information from the environment into forms that can be useful for others	Knowledge sharing Knowledge Utilization

Table 1.0: KM qualities in participation activities

Aside from presenting the participation activities in ASDP, Fig. 1.0   shows the participation activities as having KM qualities. Based from the Socialization-Externalization-Combination-Integration (SECI) model (Nonaka et al, 2002), these KM qualities show that the participation practices contain properties that can be linked to formal KM practices/activities. Table 1.0 presents an overview of these KM qualities and its link to formal KM activities.

KM activities defined

   What are KM activities*?* KM activities are processes attributed to formal KM practices. The following are the KM activities used in the study (Nair, 2005):

   Knowledge Acquisition: refers to the process of developing and creating insights, skills, and relationships;

   Knowledge Sharing: refers to collaborative problem solving, conversations, and teamwork;

   Knowledge Utilization: Refers to the integration of knowledge within the organization;

The study used these KM activities to link ASDP-related participation practices (Table 1.0) and to formal KM practices (Table 2.0).

Participation Activities	Factors for Meaningful Participation	KM Properties
Community Needs Assessment	• Need for Historical Continuum	Knowledge collaboration Communities of Practice (COP)
CNA & Project Implementation and Monitoring	• Ensuring sustainability through availability of Information	Knowledge repository Knowledge Sharing
Impact Assessment	• Ensuring appropriateness of socio-economic projects • • Ensuring sustainability through availability of Information	COP Knowledge collaboration
Project Sustainability	• Need for Historical Continuum • Ensuring sustainability through availability of Information • Ensuring appropriateness of socio-economic projects	COP

Table 2.0: Summary of participation activities and possible KM applications

Challenges and Possible avenues for ICT utilization

Matching KM qualities with participation practices in ASDP pointed to the following challenges encountered by the communities:

a) Difficulty in tracking progress and financial reports;
b) Difficulty in storage, retrieval and extraction of information; and
c) Difficulty to produce information that can support project sustainability.

In the first problem, it seems that there is an inadequate method of monitoring ASDP projects in the target communities. Project monitoring is mostly based on verbal reports. The use of data for trend analysis and other forms of data dissection are not being done by the communities. This problem is connected to (B) as reports prepared by community actors are done through the "minutes of the meeting" and free-formatted (in formal) reports.

Given these difficulties, the following are the possible avenues where ICT can be applied to initially address these challenges:

a) *Storage*- electronic storage of vital development-related information is called for given the loose treatment of information and the possible reuse & sharing of information thus converting it to knowledge. Appropriate data base management protocols and standards must be explored given the demands of knowledge management.

b) *Access*- it is the opinion of the author that providing access to information for the various stakeholders can enhance participatory governance. In the case of community development, a web portal that can incorporate governance functionalities based on stakeholders' needs will be useful.

c) *Consolidation of information*- information produced by various stakeholders can be collated to produce new knowledge that can be used and shared. Forecasting and decision support functionalities can be utilized for this purpose.

Possible ICT applications that can be developed based from the KM initiatives are presented in Fig 2.0. The ICT applications can take the form of an information portal that can incorporate an online repository with database querying and report generation. The portal can also serve as a venue for COP collaboration and sharing of learning materials.
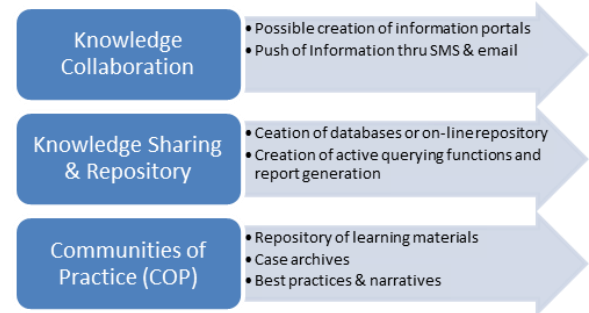

Figure 2.0: Possible ICT applications for KM properties

V. CONCLUSION

The paper explored the possibility of ensuring significant participation through the use of KM and ICT. The paper showed the phases of participation in the community development effort of the Municipality of Barotac-Viejo. Using the practices in the ASDP, these participation activities were matched with KM qualities based on the SECI model. This matching is shown in table 1.0 and fig. 1.0.

In the challenge of ensuring significant participation, the paper stated that the participation factors identified in the literature overview will be used as initial factors on how to achieve significant participation. Table 2.0 provides a summary of how participation could achieve by matching the participation factors with that of the KM properties.

Lastly, the discussions also pointed to the possible use of ICT applications to support the KM properties (Fig. 2.0). This supports the earlier argument that ICT applications are enabling tools enhance participation activities.

Limitations of the Study

Due to limitations, the author sees the need to further explore the various factors and measures that can be attributed to participation. At the same time, more effort must be made to further dissect the PLG activities related to community

development. Further research on the area could lead to more relevant and useful ICT applications.

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