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IT Governance in Virtual Communities: An exploration of the issues in the Caribbean context

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ABSTRACT

With the increased usage of information and communication technologies (ICTs) to facilitate information sharing and exchange, there has been increased development of and participation in virtual communities. In the Caribbean context, virtual communities are being formed in various sectors (public, private, NGO) in the region for collaboration and information sharing purposes. With the reliance of virtual communities on information and communication technologies, effective IT governance may be critical to the success of a virtual community. This paper presents research which will examine the current state of IT governance in virtual communities in the Caribbean, using a research model. This research will then guide the development of an IT governance framework for virtual communities with special reference to the Caribbean context.

Keywords

IT governance, virtual communities, Caribbean, information and communication technologies.

INTRODUCTION

There has been increasing interest in virtual communities in the Caribbean, as individuals and organizations collaborate in information sharing and decision-making. This has been seen in the number of virtual communities or networks that have been established in various sectors of Caribbean society ranging from development agency-supported groups to commercial enterprises. Virtual communities have been defined as 'groups of people with common interests and practices that communicate regularly and for some duration over the Internet' (Ridings, Gefen and Arinze, 2002). Leimeister, Sidiras and Krcmar (2004) note that there is no consensus on a single definition and present a working definition of virtual communities which states in part: 'A virtual community consists of people who interact together socially on a technical platform. The community is built on a common interest, a common problem or a common task of its members that is pursued on the basis of implicit and explicit codes of behavior' (page 1).

Lee, Vogel and Limayem (2003) note that there are different views on the classification of types of virtual communities and present some of the more commonly referenced classifications and types. The classification of virtual communities by use, social structure and technology base by Jones and Rafaeli (2000) is described. Whittaker, Isaacs and O'Day (1997) highlight the support provided by information and communication technologies to existing physical communities, along with those virtual communities that were established electronically from the outset. The variations in types of virtual communities are further highlighted as Sagers, Wasko and Dickey (2004) draw on the literature to show their usage within and across organizations and within groups without organizational affiliation for support, discussion, knowledge exchange and sharing. Hummel and Lechner (2002) outline five genres of virtual communities including gaming, communities of interest, and business to business.

The diversity that can be found in these virtual communities in terms of participation, coordination, structure, ICTs and other resources provides an interesting platform to examine IT governance. Leimeister et al. (2004) present results from an empirical study which show that decisions made in regard to IT application and security are critical factors in virtual community success. Weill (2004) highlights the importance of IT governance and posits that effective IT governance stems from well-designed mechanisms which are created to ensure a mapping to the enterprises' goals. IT governance is concerned with systematically determining who makes each type of decision (a decision right), who has input to a decision (an input right) and how these people (or groups) are held accountable for the role. (Weill and Ross, 2004).

A central motivation for this research is to identify and understand the governance mechanisms which may lead to effective IT governance in virtual communities. As indicated by Brown and Grant (2005), organizations are attempting to select the governance framework which best suit their needs based on their knowledge of the available options.

In the Caribbean context, there are factors which could influence the provision and acceptance of IT decision making and input rights in virtual communities. These factors could include the culture of coordinators and participants in the virtual communities, the influence of donors and consultants, the move towards regional integration and the perceived sustainability of the virtual community. An example of the development of a virtual community illustrates these issues. A group of organizations that decide to establish a virtual community may be linked by thematic area of interest; however they are not related in terms of governance arrangements. In this scenario, there may be several stakeholders in the area of information and communications technology. A consultant may be contracted to provide guidelines for IT implementation and decisions, based on funding obtained from donors. The donor may be part of the community, in addition to participants who are working under the individual governance arrangements of their particular organization. Once the external parties are no longer involved with the virtual community, what are the arrangements for information technology governance? If an organization or person who has voluntarily assumed responsibility for website hosting and development leaves the virtual community, how is continuity ensured? These issues apply in relation to sustaining both regional and local virtual communities. The Caribbean has specific issues in comparison to other regions, as there are differences among the regions in level of telecommunications infrastructure development, skills related to IT governance and regional governance mechanisms. Silvio (1996) notes that virtual communities were established in the Caribbean fairly recently compared with other regions, and indicates that the main function of these communities in Latin America and the Caribbean has been to contribute to national and regional integration. It is also noted that culture impacts the selection of technology for use in virtual communities (Silvio 1996).

In generating design requirements for a virtual community, Whittaker et al. (1997) note that some of these issues rest with the designers of the virtual community, but also evolve as participation in the community evolves. The difficulties that can arise in the governance of these resources are highlighted, based on the type of community and the context of its operation. Whittaker et al. (1997) highlight the importance of further investigation to gain insights into the 'theory and design principles' of these virtual communities.

THEORETICAL FRAMEWORK

In a review of the literature on IT governance frameworks and empirical studies, Brown and Grant (2005) identify two streams of research on IT governance: IT governance forms and IT governance contingencies. Ribbers, Peterson and Parker (2002) use competing theories of organization decision-making to develop a framework which posits that environmental contingencies will have an impact on IT governance processes and the resulting IT governance outcome. Using the theory of multiple contingencies, Sambamurthy and Zmud (1999) investigate the impact of multiple contingencies on the selection of the IT governance mode. In addition, Ripamonti, De Cindio and Benassi (2005) examine the impact of critical success factors on economic sustainability. Critical success factors were cited as examples of one of the competing theories underlying Ribbers et al.'s (2002) framework.

Peterson (2001) examines, through an exploratory study, the configurations and coordination mechanisms for IT governance. The study focused on three European-based transnational companies. Organization design theory is utilized in the development of the research framework which looks at the impact of the strategic context on the organization's governance design and the selection of traditional or hybrid governance mechanisms. For the purposes of this research, some aspects of this framework will be incorporated as it will enable the comparison of virtual communities based on their strategic context.

Contemporary conceptualizations of virtual communities predicate applying advanced information and communications technologies. A key issue that arises, if this indeed is the case, is how best to govern the acquisition, deployment, and delivery of IT services when ownership, accountability, and decision and input rights are distributed across the virtual organization. Drawing on the theoretical frameworks proposed by Peterson (2001), Ribbers et al., (2002), Ripamonti et al., (2005), and Sambamurthy and Zmud, (1999) we present a theoretical model illustrated in Figure 1. Using this model we propose to examine whether the type of virtual community has an impact on the selection of an IT governance mode. We also seek to understand whether multiple contingencies such as the corporate governance structure of a participating organization, IT preferences and culture of participants, source of funding, perceived benefits, trust and whether participants knew each other before the virtual community was established have an impact on the configuration and outcome of IT governance.

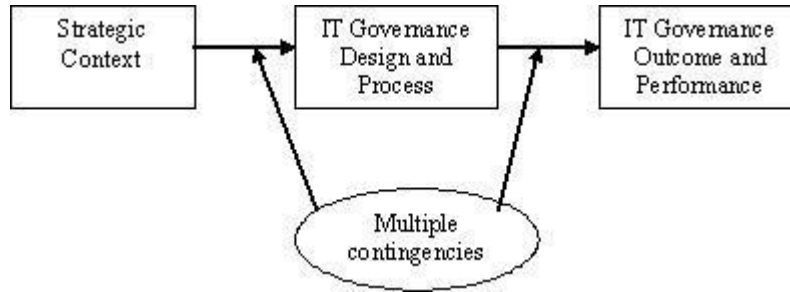


Figure 1. Conceptual model – IT Governance in Virtual Communities

The model will be used to examine the relationship between the strategic context of the virtual community and the IT governance design and process that is selected. The impact of this choice on the IT governance outcome and performance, which includes virtual community and IT functionality and participant satisfaction, will be investigated. The contingencies which influence the IT governance design and the outcome will be identified and examined.

RESEARCH METHODOLOGY

A case study research design was selected based on the objectives of this research to examine the current state of IT governance in virtual communities in the Caribbean and based on the review of the literature which shows that there has been limited research in this area. A case study research design is appropriate for research of this nature as it can be used to examine a phenomenon through multiple methods of data collection from one or more entities such as people, groups and organizations (Benbasat, Goldstein and Mead, 1987; Eisenhardt, 1989). Specifically, a multiple case study approach has been chosen.

Using purposive sampling, eight virtual communities in the Caribbean, of various types as classified by Jones and Rafaeli (2000), with population comprised of several countries in the Caribbean, will be selected for this study. The sample will include communities that have been primarily established by one organization, and those which have been organized with extensive assistance from third parties such as NGOs, the academic community or development agencies. This should facilitate the collection of data on a range of virtual communities and enable the examination of differences between these virtual communities. The sample should also include some virtual communities which have been in existence for some time and those which have just been established.

An outline of the proposed virtual communities for investigation is provided in Table 1 based on descriptions provided either by coordinators of the virtual communities or on the websites used to facilitate the virtual communities:

Virtual Community	Type of community and Technology Base	Thematic area
B1	Interest; Discussion forum, email list	Biodiversity
D1	Interest; Message board, chat, email list	Research
S1	Interest; email list	Sustainable development
A1	Transaction; email list	Agri-business
A2	Interest; email list; discussion forum	Agriculture
H1	Interest/ transaction; message board	Caribbean news
E1	Interest/Transaction; message board, email list	Environment
T1	Fantasy; online gaming	Technology

Table 1. Description of Virtual Communities

Multiple methods will be utilized for data collection. Data collection will be conducted through interviews with participants of the virtual communities, and those with responsibility for IT in the respective virtual communities. A semi-structured interview protocol will be developed based on the initial review of literature available on the virtual communities in the sample, and the theoretical framework. Based on feedback received from respondents in a pilot study on both the content and format of the instrument, the survey instrument will be finalized and interviews conducted. A mixture of quantitative and qualitative data analysis may be used if the pilot study provides the opportunity to create scales on level of satisfaction of administrators and participants with IT governance of the virtual communities. However, a small sample size may not allow this method of analysis. Discussion groups will also be held with participants in virtual communities, at first within a single virtual community and then with the possibility of interaction among various communities. These discussions may involve face-to-face or virtual interaction.

CONCLUSION

The analysis of IT governance arrangements in virtual communities in the Caribbean will contribute to the body of research on IT governance, as there has been limited investigation on its impact on virtual communities. This research, on completion, will provide practitioners with guidelines for the selection of IT governance processes in virtual communities within the Caribbean context. These guidelines will also provide material for further research in the growing areas of virtual communities and IT governance. The study takes into account the flexible nature and requirements of virtual communities, and the potential for changes in configurations and governance designs. An assumption was made that the virtual communities under investigation were active. A longitudinal study would assist in confirming the findings of this study.

This research has examined the literature on virtual communities and IT governance, and provided an overview of the Caribbean context in which the topic will be investigated. The research framework and methodology have also been presented, with an outline of the expected contribution to the research area and limitations based on the design of the study. As the research progresses, the findings will provide further insight to researchers and practitioners on IT governance in virtual communities in the Caribbean.

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