Chapter VI

Support Networks for Rural and Regional Communities

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Abstract

Using a case study approach, this chapter examines the role of organizational networks in the success and failure of information and communications technology projects. Within a framework informed by the literature of information systems failure, the diffusion of innovation and social network analysis, it argues that information systems projects must take into account the social context in which they are implemented. To be successful such networks require a mix of extended and locally based support networks, because they provide access to much needed resources, including innovations, strategic advice, training, and support at the appropriate level. It further argues that the people who are working in a regional setting felt themselves to be in an extremely disadvantageous situation because they typically lacked support from similar networks. The author hopes that highlighting the importance of such support networks will lead to a better understanding of systems failure and success, and will contribute to improved policy formulation and practice.
Introduction

Quite often it is assumed that the mere implementation of technology and some initial guidance and training in its use will result in successful projects and their ongoing effective use. Time after time this has been found to be insufficient. The literature on information systems failure deals with the multiple causes of this phenomenon, but the intention of this chapter is to focus on one aspect that is particularly important in the context of rural and regional development: the role and type of support networks that are needed to properly plan, implement, and sustain information and communications technology (ICT) projects.

The starting point will be a brief overview of the literature on information systems failure, highlighting recent research that seeks to emphasise the importance of understanding the social context in which systems are implemented and the impact that can have on their success or failure. This will be followed by an introduction to the literature on the diffusion of innovation and social network analysis. Then it will provide a broad theoretical background that can be used to examine the characteristics of organisations as nodes in broader networks, the nature of the relationships they establish within those networks and the importance of those relationships in providing access to information, skills, and resources. These theoretical concerns will then be illustrated by drawing upon a selection of case studies available in the literature, as well as practical experience the author gained when implementing information systems in Vietnam.

The case studies have been chosen because they provide examples of the theoretical issues in rural or regional settings. While some, such as the attempt to implement geographic information systems in India (Barratt, Sahay & Walsham, 2001), serve to illustrate the extent of the problems that can arise when a lack of local knowledge and infrastructure is not addressed, most of the studies illustrate more positive outcomes and act to reinforce insights derived from the theory. As a whole, they demonstrate that network relationships are essential for development in rural and regional areas because they provide access to new ideas and innovations, strategic advice, training and support, as well as a host of other necessary resources. They also demonstrate that some resources, such as access to new ideas, should typically continue to be provided through extended networks, but successful and sustainable projects require the development of a localised infrastructure capable of harnessing resources in a trusted environment.

Information Systems Failure

There is a significant body of literature that has been found discussing the causes of information systems failure from a project management perspective, for example, the work of Lyytinen and Hirschheim (1987), Keil, Cule, Lyytinen, and Schmidt (1998), and Schmidt, Lyytinen, Keil, and Cule (2001). These have tended to focus on management issues, such as the lack of top management commitment to the project, failure to gain user commitment, misunderstanding the requirements, lack of adequate user involvement, lack of required knowledge/skills in the project personnel and lack of frozen requirements (Schmidt et al., 2001) although recently there has been significant interest in concepts such as learning
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