Relating IT strategy and organizational culture: an empirical study of public sector units in India

Shivraj Kanungo[*], Sanjeev Sadavarti, Yadlapati Srinivas

Department of Management Studies Indian Institute of Technology Hauz Khas, New Delhi 110016, India

Abstract

This paper analyzes the relationships between selected aspects of organizational culture and IT-Strategy in public sector units (PSUs). Organization culture, which is treated as a shared set of norms and values, is analyzed with respect to IT-Strategies. Organizational culture is assessed in terms of innovative, supportive and bureaucratic cultures. IT strategy is viewed as comprising six generic strategies, namely, centrally planned, leading edge, scarce resource, necessary evil, monopoly and free market. The data on which conclusions were drawn arises from a nation-wide survey covering 72 public sector organizations in India. In addition to the survey research, we conducted an in-depth case study of State Bank of India. This yearlong study commenced in 1996. Statistically significant findings show that it is the innovative element of a PSUs organizational culture that is associated with a delineable IT strategy. Leading edge, free market, and monopoly IT-strategies are found to be related to innovative components of organizational culture. Monopoly and scarce resource strategies are associated with supportive and bureaucratic cultures, respectively. Our case study validates some of these findings in a large bank. Implications for practice as well as research are provided. © 2001 Elsevier Science B.V. All rights reserved.

Keywords: MIS; IT strategy; Organization culture; India; Survey and case study research; Qualitative and quantitative research

1. Introduction

Information, emerging within and outside the organization, takes its final form and is used according to the structural, socio-psychological and geographical setup of organizations. The

* Corresponding author. Present address: Department of Management Science, The George Washington University, 2115 G Street NW, Washington DC 20052, USA. Tel.: +1-202-994-7375; fax: +1-202-994-4930.
E-mail address: kanungo@gwu.edu (S. Kanungo).

socio-psychological setup, better known as 'organizational culture,' and its encounter with IT, results in unique uses, problems and intriguing issues. For linking IT use to organizational effectiveness the need arises for a well thought out and appropriate strategy. Until the early 1990s, public sector organizations or units (PSUs) in India dominated the Indian economy in almost all the core sectors. With the advent of economic liberalization, PSUs are facing stiff competition from the private sector that consists of both multinational as well as domestic organizations. In order to remain viable and competitive, PSUs have identified the role of IT (Kholi, 1994; Neogy, 1994; Kutty, 1994) as one of the key determinants of organizational renewal. While there is a comprehensive research base that documents the rationale for IT-enabled organizational effectiveness in the industrialized world, a more limited research base is available for the developing economies. Palvia et al., (1992) do provide a basis for this research and their research shows that strategic IT planning is considered among the least important elements of IS by managers in Indian PSUs. This research base suggests that, in most instances, investments in IT have not translated into organizational effectiveness and that there is plenty of scope for improvement. Studies from India (Gupta, 1996; Goyal, 1994; Rau and Rao, 1993) have also revealed that while some PSUs have used IT to drive productivity increases and derive organizational benefits, many are yet to use IT effectively.

While prior research shows us that the role and the nature of the association of IT with other organizational variables has not been studied in the PSUs of India (Bannet and Sicherl, 1992; Singla, 1992), organizational culture of public sector units (PSUs) in India has been used as an explanatory variable (Bhal, 1996; Sinha and Singh, 1993: Bhaduri, 1991) for organizational success or for less successful performance. Therefore, there is a felt need to develop a better understanding of the relationship between organizational culture and IT strategies.

Consequently, in this paper we have attempted to develop a better understanding of selected aspects of organizational culture and the strategies involved in the installation, implementation and use of computer systems. This is so because insights gained from IT experiences elsewhere (Heeks, 1995; Caudle et al., 1991; Mohan et al., 1990) cannot necessarily be translated directly into local Indian contexts. This is so because, while IT is argued to be culturally neutral, IT use is certainly not (Pacey, 1983). Pacey argues cogently to distinguish technology from technology-practice and relates culture, technology, and organizations to demonstrate the cultural influence on technology use.

This research is an attempt to map empirical relationships between organizational culture and IT strategy. Section 2 presents a review of the literature and the background for this study. In it we discuss the concept of IT strategy, organizational culture and the relationship between the two constructs. Section 3 is devoted to the research method adopted for this study and Section 4 contains the results of statistical analysis on the data collected. Section 5 provides a discussion of these results. Section 6 contains a case study that captures qualitative aspects of the relationship between IT strategy and organizational culture. Section 7 concludes the paper. In it we summarize the results and present the learning issues and implications for practitioners, and implications for theory.