Chapter XI
CEO/CIO Communication and the Strategic Grid Dimensions

Alice M. Johnson
North Carolina A&T State University, USA

Albert L. Lederer
University of Kentucky, USA

ABSTRACT

McFarlan’s strategic grid postulated that the impact of existing information systems and impact of the portfolio of planned information systems constitute two dimensions on which the chief executive officer and chief information officer could assess their information technology. But what predicts their agreement on those impacts? Mutual understanding between an organization’s CEO and CIO is an important factor in the organization’s efforts to gain the greatest value from information technology, a factor that communications theory predicts, moreover, can be the product of greater communication frequency and channel richness. This research used a postal survey of 202 pairs of CEOs and CIOs to investigate the effect of such frequency and channel richness on CEO/CIO mutual understanding of the impact of existing information systems and of the impact of the portfolio of planned information systems. More frequent communication between the executives predicted mutual understanding about the current and future impacts of IT. However, the use of richer channels did not predict mutual understanding about the current impact, but did predict it about the future impact when the extent to which the organization relied on IT to support future projects was used as a covariate. Moreover, the finding that CEOs and CIOs perceived e-mail to be a richer communication channel than telephone was an unexpected outcome of the research. From a research perspective, the study extended theory about communication frequency, media richness, mutual understanding, and the impact of IT in organizations. It also provided additional validation of existing instruments that can be used to help future researchers of communications and IT. It provided direction for CEOs and CIOs who may be interested in increasing their mutual understanding of the impact of IT, improving their relationship with each other, and thus improving their planning of new information systems.
INTRODUCTION

Mutual understanding between the chief executive officer and chief information officer is critical to an organization’s effective application of information technology. Such understanding can facilitate the organization’s alignment of IT with business strategy (Keen 1991; Preston et al. Rowe 2006; Tan and Gallupe 2006), which predicts both improved IT performance and business performance (Chan et al. 1997).

On the other hand, the lack of mutual understanding between the two executives can cause problems. For example, if the CIO fails to understand business objectives or the CEO fails to understand the value of IT and how to employ it to achieve those objectives (Nath 1989; Neo 1988), then strategic information systems planning will be adversely impacted (Feeny et al. 1992; Keen 1991). Furthermore, failure to achieve such understanding can impede the organization’s ability to acquire support for IT investments and the information systems function (Earl 1996). The Information Systems department’s budget, after all, does depend on top management’s understanding and perception of the impact of IT (Raghunathan et al. 1989).

McFarlan et al. (1983) established current strategic impact of IT and the future strategic impact of IT as meaningful and useful constructs in information systems practice and research. They defined the two impacts within their now well-known strategic grid framework. According to the authors, organizations should have developed and thus be employing a portfolio of current information systems with strategic impact, and organizations should be planning a portfolio of future systems with such impact. The grid was intended to provoke self-evaluation and the creation for information systems with strategic impact.

Mutual understanding of that impact, at both the current time and in the future, is critical (Applegate et al. 1996). An understanding of the current impact increases the likelihood of the proper support for critical, existing functions that rely on IT for daily operations. However, IT support for current functions does not guarantee support for future operations. In fact, plans and strategies for an organization’s current IT may be counterproductive for future corporate strategies (Applegate et al. 1996). Therefore, mutual understanding — often referred to as convergence — about the future impact of IT is also important.

Convergence between the CEO and CIO is important, but few studies have investigated the process through which it is achieved. The objective of this chapter is to examine the role of communication in achieving convergence in the CEO/CIO relationship. The research question is: Do the frequency of communication and the richness of the communication channel between the CEO and CIO influence convergence about the current and future impact of IT in an organization? Figure 1 illustrates the research model.

COMMUNICATION FREQUENCY, CHANNEL RICHNESS, AND CONVERGENCE

Communication frequency, channel richness, and convergence are the constructs in this research. Each is now defined along with its importance to IT management.

Frequency

Communication is defined as a process in which individuals share and create information in order to reach a mutual understanding (Rogers and Kincaid 1981). Through frequent communication, they develop common definitions of situations and build consensus (Van de Ven and Walker 1984). Such communication is referred to as an “adjustment process” (Warriner 1970, p. 126), through which relationships are transformed over time (Singlemann 1972). Similarly, it is described as a