The Role of the Chief Information Officer (CIO)
in a Changing Global Business Environment

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Research Abstract

Introduction

The role and responsibilities of the Chief Information Officer (CIO) have changed substantially over time. As business becomes more global in nature and more companies move their operations to economic centers in Asia, technology becomes a key integrating factor in cost considerations and collaboration across cultures. The knowledge necessary to manage information, systems, and people globally has become more complex as business has become more international in focus. A changing role requires new skills and knowledge. The shift to globally integrated companies requires a new mindset in supporting business strategy. Technology components must be developed that support corresponding business components in order to provide the flexibility and adaptability necessary to remain competitive. (Sanford and Taylor, 2005). It is more essential than ever that CIOs have international business knowledge to provide insights and vision that meet the demands of a senior level position and support the company's global strategy.

Many of today's CIOs acquired their formal education at a time when technical competence was a primary focus or business knowledge was more general in nature. Although many CIOs in larger companies have gained international business expertise through their own experiences, most have not received formal knowledge in the international business realm specifically. Today's CIO needs industry specific knowledge and overall business competence. Return on Investment (ROI) has become a significant part of the equation. During earlier phases of technology development, especially the internet revolution, companies poured money into technology without paying much attention to ROI. Today, that has changed as more companies are more carefully examining their IT investments. CEOs today must understand the role of technology in their overall strategy and supporting operations. The CIO plays an important role in educating the CEO and playing a partnership role in leading the organization. These roles require not only competence in management and technology

but also specifically in international business. There is a need today for more formalized knowledge that addresses the unique issues associated with doing business internationally. This knowledge will be required of future CIOs and those aspiring CIOs who are in business management programs today.

Literature Overview

The role of the Chief Information Officer has evolved since its formal inception in the early 1980s. Before this time, the title used in many organizations was that of Vice President of Information Systems. Many large U.S.-based multinational companies had a separate position for domestic and international operations. The international information systems issues were determined to be unique and complex requiring a dedicated position for international operations (Deans, et. al., 1991). This is no longer true today with the advent of the internet and a more interdependent world. The information systems executive still has a variety of titles such as Chief Technology Officer (CTO) and Vice President of Information Systems. However, today the corporate level person in charge of IT typically has authority for both domestic and international operations. In some companies both the CTO and CIO positions exist. The CIO title has, however, become the dominant title for the executive level position responsible for IT in the organization. In the majority of companies today, the CIO reports directly to the CEO. In those companies where this is not the case, the CIO reports to the Chief Financial Officer (CFO) or Chief operating Officer (COO). In this paper the CIO title is used to refer to the executive level IT position.

CEOs today want CIOs who understand the business and can demonstrate the vision for how technology can be leveraged to provide the company with competitive advantage. Today's CIOs need unique skills for success in international markets. Although we have argued for decades for the importance of international business knowledge, only recently has this global business environment emerged to the degree that companies are truly competing in a global marketplace. Given current trends in offshoring and outsourcing, especially in Asia, it has become essential that CIOs have an understanding of international business issues as they relate to their industry and operations.

Rockert, Ball and Bullen (1982) were among the first to define a model for the CIO role. This effort was in response to a charge from the Society of Information Systems Management (SISM) to write a position paper on the current and future role of the CIO in organizations. Several have built on this research over the last two decades (Rockart, Ball and Bullen, 1982; Benjamin, Dickinson and Rockart, 1984; Feeny, Edwards and Simpson, 1992; Enns and Huff, 2000; Awazu and Desouza, 2004). More recently, a leadership theme has evolved in which researchers have evaluated characteristics of successful CIO leaders and how this role has continued to evolve over time (Awazu and Desouza, 2004; Smith, 2006). Today's CIOs are more likely to have business and industry expertise. They have become the visionary and strategic IT thinker. This role requires leadership skills, people skills and change management skills. Technology acumen is necessary but not at the top of the list for the highest ranking IT officer. There are many examples today of CIOs who do not have any formal technical education. This represents a major change over the past two decades. Given these trends, it can be argued that the CIO also requires formal knowledge of international business. This knowledge may be acquired through executive education programs or specialized professional development programs.

Both the international business field and information technology field are eclectic in nature and cut across all aspects of the business. It has been well established in the literature that there is a substantial overlapping knowledge interface between information technology and international business (Ives and Jarvenpaa, 1991). A model developed by Deans and Ricks (1993) addressed the intersection between international business, information technology and the functional dimensions of business (marketing, finance, accounting, human resources etc.) Their model focused on the need for research to cut across these domains. This paper specifically addresses this need by presenting an extension of this earlier model to include the specific international business knowledge domain necessary for today's CIOs.

Research Framework

This research provides some preliminary findings and a guiding framework for evaluating the evolving role of the Chief Information Officer (CIO) in multinational

companies and the international business knowledge domain necessary for success in today's global marketplace. The results discussed in this paper are based on interviews with a sample of CIOs in U.S.-based multinational companies across a variety of industries. Follow-up empirical work is currently in progress.

The following research questions are guiding the overall research in this study. The primary purpose at this stage of the research process is information gathering to provide a foundation for development of a more formal instrument for future research. The research questions focus on the current role of the CIO, knowledge and experience required for success in this role and the educational background needed for success in the future.

1. What are the current characteristics of the CIO role as identified by practicing CIOs today?

2. What are the international business skills and knowledge domain needed by CIOs in US-based multinational companies?

3. Do these skills and knowledge vary across industries?

4. Do these skills and knowledge vary across countries?

Relevant studies of CEOs that address international business skills, international business knowledge, and personal characteristics that contribute to success in the global marketplace are also included in the research design (i.e., Fernandez and Underwood, 2006). Preliminary interviews were conducted with ten CIOs from a variety of industries and companies that have operations around the world. These interviews were informal and spontaneous with some flexibility to ask questions based on previous responses.

Based on the findings from this research, a framework was developed to represent the formal knowledge areas that depict the primary domains of competence required of CIOs.   The argument is made for the incorporation of this international business knowledge domain in the formal education of IT leaders and specifically for the CIO.

Future Research

This work provides a foundation from which to pursue more extensive evaluation of the international business knowledge required for CIO success. The model presented in this paper will be tested empirically to determine areas of priority and to establish an

agenda for addressing these concerns. Research building on this work might compare responses across industries and countries. Most of the research to date and presented in this paper is from a US-based multinational corporation perspective. As U.S. companies continue to expand around the world, especially in Asia, it has become increasingly necessary to study these research questions from a global perspective.

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