IT Software Development Offshoring: A Multi-Level Theoretical Framework and Research Agenda

Fred Niederman, Saint Louis University, USA
Sumit Kundu, Florida International University, USA
Silvia Salas, Florida International University, USA

ABSTRACT

The offshoring of IT development is a significant global economic phenomenon. It influences the lives and fortunes of individuals, organizations, and nations/regions. However, because offshoring so broadly affects different stakeholders, a multi-level theory is required so that influences that may positively affect one set of stakeholders while negatively affecting another are not misinterpreted by an overly narrow analysis. This article discusses how IT development is differentiated from other global labor sourcing and argues that it is worthy of investigation as an offshoring domain. The article proposes that the study of IT development offshoring needs to recognize precursors and results as they affect individuals, organizations, and nation/regions, and presents examples and discussion in each of these areas. The article further argues that the domain of IT development offshoring is incomplete without consideration of interactions between the individual and nation/region as well as between the organization and nation/region. The article concludes by considering the complexity of presenting a complete picture in this domain and suggesting some areas for future research.

Keywords: IT software development; multi-level theory; offshoring; outsourcing

INTRODUCTION

Offshore outsourcing (offshoring) is the practice of distributing work, particularly in the area of information technology (IT) services and development, to workers outside the national borders of the host country. It represents an extension to global proportion of outsourcing practices that have become widely practiced since the 1980s among organizations seeking to hire others to manage IT work or to develop new IT capabilities. Offshoring is not an
issue limited to multinational corporations in the U.S., but a global issue that impacts organizations (Beylerian & Kleiner, 2003) and government agencies (Gruber, 2004; Harden, 2003) around the world.

This practice has received widespread attention, because it influences significantly economic activity for a diverse set of stakeholders. It shifts the equation of decision making for individual IT workers and those considering IT as a career, for organizations embarking on offshoring activities (or considering whether to do so), and for nations/regions competing to attract IT offshoring work or to retain that work domestically. This article argues that offshoring is a significant global, information-technology-related phenomenon of a magnitude that demands attention and understanding. It also argues that the range of stakeholders and the interaction among stakeholders suggest that comprehensive understanding of this phenomenon will require attention to each stakeholder group as well as the manner by which decisions and actions at each level have influence at different levels. Figure 1 presents a graphic representation of the relationships among stakeholder levels that will be discussed in this article.

Offshoring is of significant concern to IT workers, as it potentially affects both the number and kind of jobs available to them. In the U.S., total IT employment shrunk significantly from its peak in 2000. Using the BLS, InformationWeek found that the number of Americans employed in technology has increase by 96,000 in the last year and a quarter (up to summer 2005). However, that is still 82,000 fewer jobs than at the end of June 2002 (Chabrow, 2005). For a period of time, unemployment among IT workers was higher than among U.S. workers overall for the first time since the invention of the computer (at least since statistics included IT workers) (Niederman, 2004). At approximately the same time, according to an Information Technology Association of America (ITAA) study in 2003, U.S. IT-producing companies have

Figure 1. Levels of analysis and interactions

![Diagram](image-url)