Chapter I
Markets, Hierarchies, and the Evolving Nature of Interorganizational Cooperation[1]

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ABSTRACT

The decreasing cost of IT has encouraged organizations to seek new ways of cooperating with members of the supply chain and other key strategic partners. This increased cooperation is giving rise to a new type of interorganizational system (IOS). Before the advent of the Internet, IS integration required significant investments on the part of organizations participating in an IOS. Such heavy investments, in turn, necessitated close strategic cooperation in the non-IS domain as well. Thus, IS integration went hand-in-hand with non-IS (relational) integration in the pre-Internet era. However, advances in Internet technology have commoditized IS integration to a significant extent, thereby allowing the uncoupling of IS integration and relational integration. It is now possible for organizations to have IS integration without developing strong non-IS linkages. We propose a framework to account for this recent shift and present a typology for classifying interorganizational systems based on the segregation of IS and relational integration. We also verify the typology in case studies of four large firms.

INTRODUCTION

Developments in information technology (IT) have made a significant impact on the way companies compete and cooperate with each other. As the costs of IT, especially those pertaining to hardware purchases, continue to decline, companies are discovering newer ways of cooperating with their supply chain members and other strategic partners to gain and retain competitive advantage in the marketplace. This increased use of IT also seems to be making an impact on the nature of interorganizational relationships (Clemons & Row, 1992; Giaglis, Klein, & O'Keefe, 2002). Although the role of IT in interorganizational cooperation has evolved tremendously in the last decade, the use of IT for such purposes has been around for several decades. For example, companies have long used dedicated EDI systems for efficient inventory management and materials ordering. A significant development in the use of interorganizational IT in the last decade has been the increasingly widespread usage of Internet-based IT applications for better coordination and collaboration between organizations.

Compared to a traditional EDI system, the Internet provides a lower cost communications medium. The lower costs accrue from a shared global network and standardized information exchange protocols and platforms. This lowering of cost has created new opportunities for companies to cooperate with each other. Given that Internet-based information systems (IS) require a minimal dedicated infrastructure, a unique opportunity for companies is created whereby they can integrate their IS without necessarily having any close relationships with each other (Angeles, 2000; Chan & Swatman, 2000). For example, Johnston and Mak (2000) report about a retail company in Australia that uses two types of B2B e-commerce models. In one model, the company uses IS to transact with a small number of big suppliers. In this case, the retail company integrates not only its IS with its supply chain members by investing significantly in developing the infrastructure, but also invests in building relationships with them through long-term contracts. In the other model, however, the retailer uses IS to transact with a large number of small-sized suppliers. In this case, the company transacts with these small suppliers using the low-cost Internet-based EDI. Also, there is an apparent absence of any other form of relationship development between the company and its small suppliers.

Thus, it appears that the lower cost of IT is now allowing companies to integrate their information systems without having to develop any close relationships in the non-IS domain. This is a major shift from just a decade ago when relational integration went hand-in-hand with IS integration. The two could not be separated because of the capital intensive nature of the dedicated IS cooperation, where relational integration like strategic alliances was required to integrate interorganizational systems like EDI systems (Clemons et al., 1992). However, as illustrated by the Australian retailer example above, it is now becoming increasingly possible for companies to separate the two and adopt one without adopting the other.

It is this dichotomization of interorganizational integration that forms the basis of our chapter. In this chapter, we examine the phenomenon of interorganizational cooperation and integration. We propose that the reduced cost Internet-based IS systems add a new layer to the market-hierarchy dichotomy. Prior studies that have traditionally applied transaction cost theory to this dichotomy have assumed that relational and IS integration go hand-in-hand (Clemons et al., 1992; Kambil, Nunes, & Wilson, 1999; Malone, Yates, & Benjamin, 1987). We propose that this does not always have to be the case and propose a new framework to understand this phenomenon. The rest of the chapter is organized as follows. We first present a brief overview of the distinction made by previous researchers between markets and hierarchies and how this distinction has evolved in the electronic domain. Next, we argue that the