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Abstract

In this paper, we address how business value is produced in networked economic systems with a focus on representation and analysis of the transfer of value between enterprises through resources. These enterprises, termed service units, “[provide] a resource for the benefit of another”, following the Service Dominant Logic of Vargo and Lusch (2004, 2006) with the definition of a service in a context of use value as opposed to exchange value. Analyses based on this representation provide insight into the strategic positioning of individual firms by accounting for all of the resources needed to satisfy a customer value proposition. The analysis also provides insight into the value structure of extended enterprises comprised of resources obtained outside their ownership boundaries through outsourcing and partnership arrangements.

Introduction

The revolution in information and communication technology is reaching a maturity point where high bandwidth availability now enables large-scale communication, with global access to a large amount of information on demand. This phenomenon has opened up new opportunities in enterprise restructuring (Palmisano, 2006), market efficiency and value creation. Customers have many channels for accessing relevant information and are able to make sound judgments based on information such as price regularities or item availability.

Today’s geographic dispersal and commensurate organization has called for a more connected and global model of business value network emphasizing the need for detailed coordination among actors, processes, and resources. Now organizational resources need not be replicated at each location, but instead can be globally co-owned. The ability to process large volumes of information and access them from any geographic location means that the co-location of highly coordinated functions is no longer necessary.
Today’s business reality sees companies moving towards globalization and specialization, and needing to manage and analyze more relationships with partners, suppliers, competitors, and other organizations. Business decision makers need to describe, measure, understand, and transform these business value networks in new ways not common in the days of the integrated vertical enterprise.

In this paper, we describe a business structure analysis to address issues of globally integrated enterprise and specialization. We focus on the extended enterprise, which is a subset of the overall business network. Sample decision problems addressed include but are not limited to: identification of business partners, roles, dependencies, and contributions; assessing balance between competitive and partner relationships; assessing network health, risk, and transformational opportunity.

We start by an introduction to several business value network analysis concepts important to the current evolution of business structure: the concept of the value network itself, the entwined concepts of service and resource, the concept of value provided by a service and its extension to a value network, and the view of an extended enterprise where multiple firms own and manage parts of a global pool of resources. We then follow by outlining a set of techniques that could be used to analyze the extended enterprise.

Related Work

Various modeling concepts and techniques have been utilized to analyze the fundamental structures of the modern enterprise. Theories have been put forth that span various disciplines including organization theory, economics, and strategy as seen through work on Transaction Costs Economics (Coase, 1937; Williamson, 1975), the resource-based theories of the firm (Barney, 1991) that posit the need for scarce resources as a reason for firms to enter into exchange relationships, and Porter’s (1980) value chain analysis as one of the pioneering works in providing a macro view of firms’ analysis.

Exchange Relationships

Networks of independent entities involved in economic exchanges have been examined from many perspectives. Resource and capability-based perspectives (Das & Tseng, 2000; March, 1991; Teece, Pisano, & Shuen, 1997) focus on the internal source of value while social networking (Uzzi, 1996), structural holes (Burt, 1992), and transaction cost perspectives (Coase, 1937) focus on the external (Williamson, 1975).

The Actor, Resources, and Activities (ARA) model (Hakanson & Johanson, 1992) provides a conceptual representation model for describing interactions in an industrial network. Industrial Network theory views the industrial market as