

Chapter III

Product Complexity as a Determinant of Transaction Governance Structure: An Empirical Comparison of Web-Only and Traditional Banks

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ABSTRACT

A transaction governance structures (TGS) is a structure that mediates exchanges of goods or services between different agents or production stages (Williamson, 1979, 1981). According to transaction cost economics (TCE), a selection of TGS for the trade of a particular product depends on the characteristics of the transaction, such as asset specificity, uncertainty, and frequency. This article argues that TCE alone is not sufficient to explain the selection of a TGS. Product complexity also plays an important role in explaining why a particular TGS is selected for a particular product. The construct of product complexity originated in the field of industrial marketing and is an important factor in the study of purchasing behaviors of buyers, decision-making processes of suppliers, and dynamic relations between buyers and suppliers. This study integrates industrial marketing with TCE and examines the impact of product complexity on TGS in the context of banking.

INTRODUCTION

E-commerce has given rise to a variety of transaction governance structures (TGSs) such as online

electronic transactions, forward and backward auctions, distributor consortia, supply chain networks, and mass catalog compilers (Brack, 2000). The new landscape of TGS raises ques-

tions. Is an online TGS more likely to be market or hierarchy oriented? What factors influence the design and selection of an online TGS? Does one have to manage online and off-line differently, and, if so, how? The answers to these questions are important at both the macro and the micro level. At the macro level, they can help policymakers to develop economic and governmental policies regarding e-commerce and the Internet. At the micro level, they can help managers make decisions concerning what to buy (tangible product, searchable product, or digital product), where to buy (from traditional markets or from e-markets), or how to buy (spot purchase or long-term contract).

This study integrates transaction cost economics (TCE) (Williamson, 1979, 1981, 1991) and industrial marketing (Fisher, 1976; Hill, 1973) to examine the impact of product complexity on TGS. The next section of this article reviews the literature that provides the theoretical foundation. The subsequent section proposes the hypotheses and a research model. The following section explains the measurements and tests. The final section discusses the implications and limitations of our study.

LITERATURE REVIEW

Transaction Governance Structure: The Construct

A TGS is defined as a structure that mediates exchanges of goods or services between technologically separable agents or between production stages (Williamson, 1979, 1981). Ring and Van de Ven (2000, p. 173) further defined TGS as “the legal forms of governance that apply to different kinds of transactions (ranging from markets to hierarchies), and the structural and procedural safeguards that parties negotiate into a transaction.” There are numerous ways to operationalize

the construct. The two dominant ones are Van de Ven (1976) and Williamson (1991).

In earlier studies (John, 1984; John & Reve, 1982; Klein, 1989; McCabe, 1987), the conceptualization and operationalization of TGS were influenced heavily by sociology. The logic was that an interorganizational relationship is a social system. Since a TGS is a kind of interorganizational structure, the dimensions commonly used to examine social structures, therefore, could be used to define and measure TGS (Van de Ven, 1976). Consequently, the dimensions used for measuring social structures, such as formalization and centralization, were seen commonly in early TGS studies (John, 1984; John & Reve, 1982; Klein, 1989).

The second influential framework of TGS was Williamson’s (1991) model. The framework defined TGS with five dimensions: incentive intensity, administrative controls, contract law, adaptation (A), and adaptation (C) (see Table 1).

An incentive mechanism provides a payoff structure to guide actions in a certain direction (Cohendet, Llerena, & Marengo 2000). Incentive intensity is measured by how tightly actions are linked to their consequences. Incentive intensity is high in a pure market-based TGS in which actions of reducing cost and increasing quality are rewarded immediately by profits or demand increases. In a hierarchical TGS, the relationship among supply, demand, and rewards is manipulated by administrative controls. Administrative controls provide a payoff structure to guide agents’ behaviors toward an administrative goal.

Types of law distinguish TGSs that govern different types of transactions. Bargaining transactions are governed by classical contract law where transactions are “sharp in by clear agreement; sharp out by clear performance” (MacNeil, 1974, p. 738). Managerial transactions typically take place within an organization and are governed by forbearance law. Under the law of forbearance, “a hierarchy is its own court of ultimate

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