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Beyond Transaction Cost Economics: Towards an endogenous theory of Information Technology Outsourcing

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ABSTRACT

In our review, we coded 73 empirical findings from 31 journal articles that applied Transaction Cost Economics (TCE) to study Information Technology Outsourcing (ITO). As Karimi-Alaghehband et al. (2011) note correctly, the empirical results of TCE tests in the context of ITO are mixed. We found that only 49% of the empirical ITO findings supported TCE logic. We found only slightly better support for TCE when it is used as a normative theory (54%) than when it is used as a predictive theory (47%). The main difference between Karimi-Alaghehband et al.'s (2011) contribution and our contribution to the debate focuses upon what to do next. Karimi-Alaghehband et al. (2011) argue that ITO researchers need to apply TCE more faithfully. We argue that we are asking too much of TCE—the ITO phenomenon is more complex than can be accommodated by TCE. We argue that ITO research has matured to the point that we should be building our own endogenous ITO theory. We offer observations and insights on what such a theory might entail. In moving ITO research forward, we first critique TCE assumptions and provide alternative assumptions that seem to fit ITO observations well. We draw on our review of 741 ITO empirical findings (Lacity et al., 2010) to provide a detailed theoretical framework to advance further study that suggests the most promising constructs to use in an endogenous ITO theory.

1. Introduction

Transaction Cost Economics (TCE) has been the most frequently appropriated theoretical framework for the study of Information Technology Outsourcing (ITO) (Klein, 2002; Dibbern et al., 2004). TCE is a theory specifically addressing make-or-buy decisions and has therefore been viewed as a strong theoretical base for analyzing ITO decisions (e.g. Aubert et al., 1996). TCE has enjoyed an abundance of empirical and theoretical academic attention in other disciplines, which may have also influenced its appeal to ITO researchers (Anderson, 1994; Bowen and Jones, 1986; Griesinger, 1990; Hennart, 1991a,b; Hesterly et al., 1990; Hill, 1990; Joskow, 1985, 1991; Lieberman, 1991; Malone, 1987; Malone et al., 1987; Pisano, 1990; Robins, 1987; Walker and Poppo, 1991). In addition, this is a theory we have used and applied in our own empirical work (Lacity and Willcocks, 1995; Poppo and Lacity, 2002; Willcocks and Lacity, 2009). Given its common adoption for the study of ITO, it is both relevant and timely to review the empirical applications of TCE to the ITO context.

As Karimi-Alaghehband et al. (2011) note correctly, the empirical results of TCE tests in the context of ITO are mixed. Their interpretation of the mixed empirical results assumes ITO researchers frequently misappropriate the theory. We agree with much of their interpretation; we agree that TCE often operates better as a normative theory (Poppo and Lacity, 2002, 2006) and that ITO researchers frequently ignore interaction effects. We complement their contribution by offering

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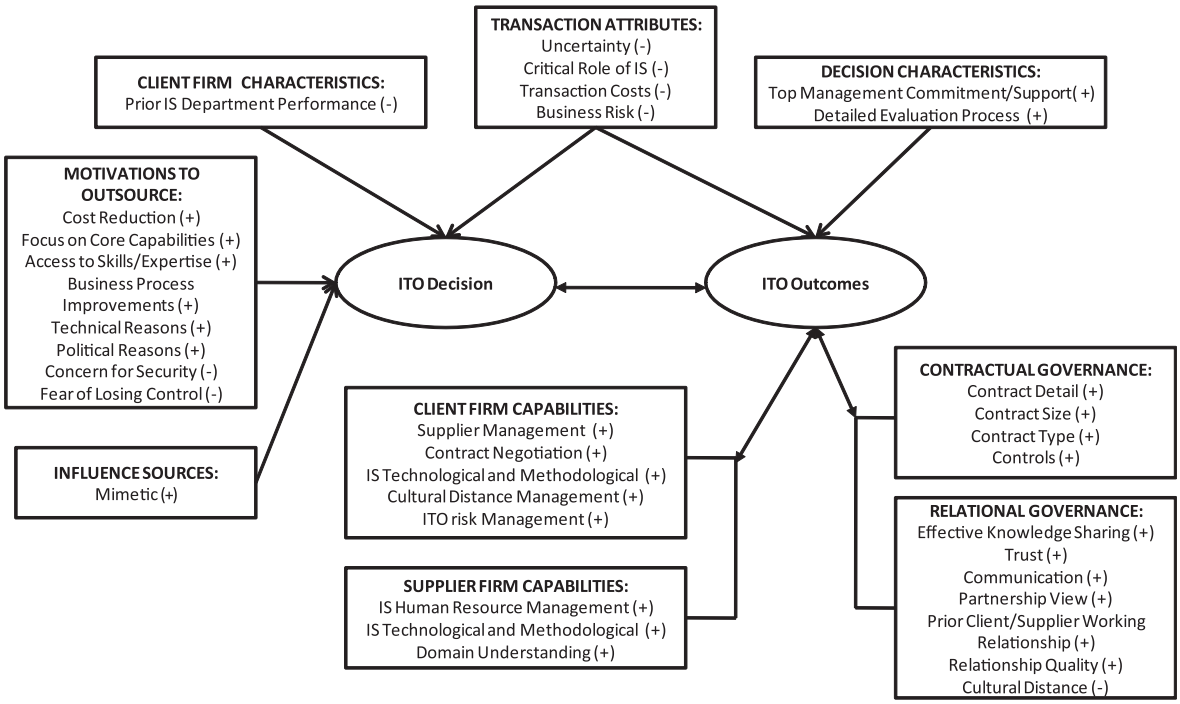

Fig. 1. Theoretical framework adapted from Lacity et al. (2010).

additional insights into the mixed TCE results based on our review of the empirical ITO literature. In our review, we coded 73 empirical findings of TCE found in 31 ITO articles. Of these, slightly less than half of the empirical findings supported TCE logic. We categorize the reasons authors provided for the anomalies into four categories: research methods, boundary conditions, TCE assumption violation, and alternate theory explanations. With *research method explanations*, authors do not assume that their data provides evidence counter to TCE logic. Instead, authors attribute lack of empirical support of TCE to measurement problems, or to some TCE effects overpowering other TCE effects. *Boundary condition explanations* attribute lack of empirical support of TCE to the distinctive context of ITO, such as the distinctive nature of IT, the distinctive research setting (e.g. such as public sector IT), or the distinctive attributes of the data collected. *TCE assumption violation explanations* argue that TCE's explicit or implicit assumptions are unsupported. Finally, *alternate theory explanations* suggest that other theories are more powerful in explaining ITO.

The main difference between Karimi-Alaghehband et al.'s (2011) contribution and our contribution to the debate focuses upon what to do next. Karimi-Alaghehband et al. (2011) argue that ITO researchers need to apply TCE more faithfully. We argue that we are asking too much of TCE—the ITO phenomenon is more complex than can be accommodated by one decision-making theory. We have argued (Lacity et al., 2010) and continue to argue here that ITO research has matured to the point that we should be building our own endogenous theory rather than continuing to rely heavily on reference discipline theories. By endogenous here, we refer to the several dictionary definitions of 'deriving or originating internally', 'arising from within the generating structure' and 'generated by internal factors'.[1]

The paper proceeds with some commentary on TCE as a theory. Because Karimi-Alaghehband et al. (2011) have provided a good explanation of TCE, we will not replicate an explanation of the theory in this paper. We then discuss the method we used to review and code the empirical ITO literature that appropriated TCE as a theoretical basis to derive propositions, hypotheses, or arguments. Next, we discuss the empirical anomalies by offering research methods, boundary conditions, TCE assumption violations, and alternate theory explanations of anomalies. We conclude by arguing that ITO research may be best served by moving towards developing our own theory of ITO. To derive an ITO specific theory, we believe we can retain, recombine, and reconfigure important constructs from other theories that have been empirically tested and robustly found to be significant in the ITO context. The retained constructs need to be coherently organized, with a consistent set of assumptions that suggest why these constructs are the best predictors of ITO decisions or ITO outcomes. A beginning is made below with the development of a theoretical framework for ITO studies (see Fig. 1).

[1] See for example wordnetweb.princeton.edu/perl/webwn; en.wikipedia.org/wiki/Endogenous. To extend this point, endogenous means generated from empirical IS studies of ITO.