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Epilogue: Popperian Perspectives on Transaction Cost Economics and Future Directions of Empirical Research☆

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Abstract

The 2009 Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel Prize to Oliver Williamson was not a surprise to scholars in business research. Transaction cost economics (TCE) has been among the most important streams of empirical investigation in business research during the last four decades. TCE has formed, developed and changed business research across disciplines during this era. Williamson, (1999:1092) himself noted that "*I have no hesitation, however, in declaring that transaction cost economics is an empirical success story*." The Nobel Prize is a milestone event in business research, and the use of the criterion of falsification in this essay provides a compass to navigate future efforts. We present potential avenues of TCE research based on a Popperian lens focused on research discussed throughout this milestone issue of the *Journal of Retailing*.

Keywords: Business research; Transaction cost economics; Nobel Prize in economics; Popper; Falsification; TCA; TCE

Introduction

The 2009 Nobel Prize to Oliver E. Williamson is a milestone not only to economics but also to the different fields of business research. It is an opportunity to put transaction cost economics (TCE) into a broader perspective, and the criterion of falsification is a good platform by which to do so. Strongly related to the idea of falsification is the ability to develop and test theoretical statements. We therefore review contributions to TCE in light of the structure, specification, testability, and empirical support that facilitate falsification efforts (Popper 1959). Furthermore, we present opportunities for future avenues for empirical research in this area.

Structure

Structure refers to the construction of refutable relationships among measures of theoretical concepts. The architecture of a nomological network reflects the quality of the theoretical structure (Cronbach and Meehl 1955). This sub-dimension of the falsification criteria focuses on the predicted system of theoretical relationships within an empirically testable model (Cook and Campbell 1979). The theoretical model should construct an operational apparatus based on the theoretical framework that forms logical information and testable hypotheses (Zaltman, Pinson and Angelmar 1973). Structure means that there are at least two or more theoretically measurable concepts. Furthermore, according to the Popperian perspective, the researcher develops hypotheses before data collection and attempts to generalize after data collection (Popper 1959). By contrast, a "weak" theoretical perspective does not present suitable theoretical definitions. Moreover, there is a lack of "structure" when causal connections are vague, diffuse, or implicit. Another structural problem materializes when there is a divergence on definitions or causal formation.

In the early "*classic period*" (from Coase 1937 to Williamson 1975) there was no explicit theoretical structure designed for empirical testing. TCE developed a theoretical understanding that transaction costs explained organizations, but it offered limited discussion of when and how this occurred or did not occur. After Williamson (1975) presented the endogenous governance structure of TCE as a dichotomous variable ("*make or buy*" period), the model became testable and falsifiable. Early empirical inquiries reflected this theoretical point of theoretical evolution. Anderson's (1985, 1988) logistic regression model-

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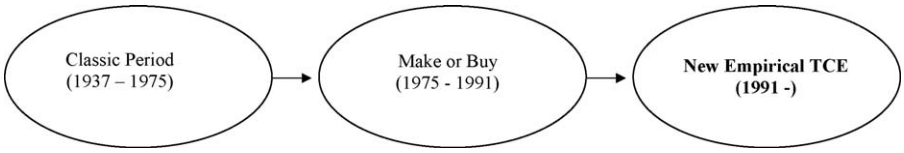

Fig. 1. Periods of TCE research.

ing of make or buy contracts in the distribution of electronics illustrates the early innovative phase of transaction cost analyses. Scholars had to find empirical settings where they could measure a dichotomous dependent variable. The theoretical framework was simplistic (*make or buy*) as well as the methods. Logistic regression was a popular approach to empirical testing.

Williamson (1991) refined the structural alternatives to include complex intermediate governance alternatives between make or buy. The theoretical development took a major step forward in making the theoretical implications adaptable to the real world business context. Furthermore, the theory became generalizable within contexts in which the mix of contracts was more than diverse than a make or buy dichotomy. Empirical research proceeded by reflecting more sophisticated theoretical models of contractual relationships (Williamson 1991). For example, Dahlstrom and Nygaard (1994) examined TCE antecedents to multiple contractual arrangements in the oil industry. Although empirical models became more complex and refined, the concept of "governance" became more complicated to capture. For instance, the "intermediate" contractual arrangement "franchising" may or may not be on a linear centerline between market and hierarchy (Bradach and Eccles 1989).

Williamson's assumption (1991) of the development from dichotomies to multiple divergent contractual forms has not broadly been subject to theoretical or empirical analyses. The growth of TCE analyses in "*The New Empirical TCE*" – period from 1991, however can be characterized by more complex and refined theory, methods and empirical contexts. Fig. 1 presents the periods of theoretical development in TCE research. The diffusion of the TCE framework into business research increased after the theory became more amenable to complex contexts.

Ex ante perspectives

The element of opportunity costs of alternative governance structures is crucial to mainstream TCE analyses, yet ex ante opportunity costs are difficult and costly to measure. Although some initiatives have been made to measure "switching costs," TCE research in general has avoided the measurement of the ex ante costs (Benham and Benham 2001). Most of the investigations have applied specific investments, uncertainty, and frequency as proxy measures for alternative governance costs (Wang 2003). When specificity, uncertainty and/or frequency increase, transaction costs increase and affect the choice among governance alternatives. TCE predicts how management estimates potential ex ante costs among available alternatives. In the real world of business, these costs may be hidden behind walls of confidentiality, complexity and opportunism where research is seldom welcomed. Asset specificity, uncertainty and frequency might be complex, real world estimates of ex ante transaction costs. However, few initiatives investigate this basic empirical TCE assumption.

Ex ante perspectives have dominated TCE research (see reviews in David and Han 2004; Geyskens, Steenkamp and Kumar 2006; Rindfleisch and Heide 1997), but there are signs of a reorientation of the structure of TCE research. We can see that ex ante perspectives have been supplemented by post-contractual, empirical research (Williamson 1999). The focus has changed from the opportunity costs of alternative structures as an independent variable to an endogenous variable. Ex post research emphasizes how operating business relationships might affect transaction costs and performance (Dahlstrom and Nygaard 1999).

Even though TCE is a normative decision theory, few inquires have investigated the concept of "transaction costs." In spite of the fact that this concept is the driving variable in the TCE analyses, transaction costs are scarcely mentioned in the literature, seldom defined, and rarely operationalized (Dahlman 1979). Dahlman (1979) referred to the patchy and incoherent knowledge of the core concept in the TCE literature.

Conventional TCE research has had a strong focus on the frequency, uncertainty, and opportunism variables. Consequently, these variables have been defined and operationalized many times (Anderson 1988; Palay 1984; Williamson 1985, Chapter 2). Both Rindfleisch and Heide (1997) and David and Han (2004) report consistency regarding definitions and the nomological net presented by the previous empirical literature. In order to satisfy restrictions based on the falsification criteria, future TCE research needs to address definitions and consistency of the key element "transaction costs." Psychometrics and structural equation models and other conventional methods in the New Empirical TCE provide the means to do so. The application of stringent methods provides the opportunity to assess the robustness of the theory.

TCE research early on demanded dyadic methods because of the focus on "the transaction" as the level of analyses. Thus, John and Reve (1982) developed methods to analyze dyadic data. Richer data from both sides of the dyad better prepare TCE for empirical testing and triangulation that facilitate falsification. Diverse data helps build a stronger theoretical platform because methodology is "proposing bold hypotheses, and exposing them to the severest criticism, in order to detect where we have erred" (Popper 1974, p. 68).

Considerations for the unit of analysis and the refined assessment of observations continues to provide enhanced insight to TCE. Single-item, single informant approaches have been replaced by multi-item, multi informant research that employs stringent criteria designed to contribute to falsification efforts. Researchers recognize the insight gleaned from dyadic reports,