Financialization of the Economy and Clean Technology Innovation:

The Paradox of Institutional Investor Ownership

This paper examines how the rise of shareholder value orientation driven by the financialization of the economy impacts corporate environmental innovation. By focusing on the tension between corporate practices meeting shareholder demands and ongoing efforts for environmentally beneficial strategies, we can gain a deeper understanding of the fundamental tension between the managerial short-term orientation, embedded in the dominant market norm of shareholder value conception, and the long-term orientation for proactive corporate environmental strategies, embedded in the broader societal demands on corporate environmentalism.

Organizational research on the conception of shareholder value has tended to focus on cases of how organizational generic strategies are well aligned with the demands of shareholders, yet sustainability research has tended to focus on cases of how organizations respond to institutional demands of corporate environmentalism. Hence, drawing from recent scholarly advances on inconsistencies in temporal orientations and inherent paradoxical natures in the generic business domain and the particular sustainability domain (Bansal & DesJardine, 2014; Hahn et al., 2014; Smith & Lewis, 2011), we aim to bridge the gap between complexities in institutional demands in specific sectors or fields and a more general view of these dynamics. By doing so, this paper contributes to an understanding of how dominant cultural forces affect the stability and transformation of particular markets.

Empirically, we examine whether the growth of institutional investor ownership undermined ongoing managerial efforts to enhance clean technology innovation. Drawing variations in ownership structure, industry, and regional characteristics, we investigate under which conditions such relationship between institutional ownership and clean technology innovation were mitigated or amplified. We develop our theoretical framework from the joint consideration of institutional complexity in organizational environments (Friedland & Alford, 1991; Greenwood et al., 2011; Thornton et al., 2012) and socially embedded and constituted agency as a carrier of cultural values (Rao et al., 2003; Scott, 1995; Westphal & Zajac, 2013). By focusing on different situational contingencies and the heterogeneity among institutional investors, we formulate several hypotheses that we test in data on a universe of U.S.-listed firms who participated in clean technology innovation from 1990 to 2004. A set of our hypotheses is as follows:

*H1. Institutional ownership has a negative relationship with clean technology innovation.*

*H2. The negative relationship posited in H1 is weaker, when (a) institutional ownership is concentrated or (b) a firm is owned by families.*

*H3. The negative relationship posited in H1 is weaker, when a firm’s focal domain operates in (a) an environmentally regulated sector or (b) an individual consumer focus (B2C).*

*H4. The negative relationship posited in H1 is stronger, when a firm’s headquarters is located in (a) an eco-friendly state or (b) a Democratic state.*

*H5. The negative relationship posited in H1 is stronger for (a) transient institutional ownership or (b) predominant institutional ownership (investor advisor & mutual funds).*

To test our hypotheses, we assemble firm-level data from a variety of sources. We link clean technology patents data obtained from CleanTech PatentEdge with the NBER Patent Project data and the Harvard Patent Dataverse data to match these data with Compustat from 1980 to 2010. Institutional ownership data are from Thomson Reuters and Brian Bushee. We consult with several archival sources to construct ownership, industry, and regional variables in our sample. As we employ fixed-effects models by employing pre-sample mean scaling estimators, we require a firm to have at least one successful clean technology patent application in our sample period, which is the main restriction from the overall Compustat database. To avoid the data truncation bias, we choose our sample period from 1990 to 2004. Although the number of observations varies by specific regression, the baseline sample for our analyses contains 6,875 observations on 856 firms. Our hypotheses are supported throughout our analyses.

Efforts to bridge the gap between the general domain of organizational theory on financialization (Useem, 1996; Davis & Kim, 2015) and institutional complexity approaches (Friedland & Alford, 1991; Smith & Tracey, 2016) have important implications for sustainability research. There has been substantial progress on the notion that managerial behavior is situated and constituted by heterogeneous institutional forces, yet we need a finer-grained mechanism of how managerial efforts for sustainability are bounded by broader tensions over temporal orientation among market players, bringing paradoxical dimensions in such efforts. Focusing on the fundamental tension in temporal orientations between proactive environmental strategy and shareholder value maximization, in the context of clean technology innovation, we advance the notion of the means-ends decoupling embedded in heterogeneous institutional demands (Bromley & Powell, 2012; Wijen, 2014). Related, such issue touches upon the fundamental tension between the logic of appropriateness and the logic of consequences (March & Olsen, 1989).

Interestingly, the origin and evolution of institutional investors were driven by the individual’s motivation for saving for the future, leading financialization of the economy and emphasizing shareholder value orientation such as the explicit focus on the stock price and future growth opportunity for a firm (Davis, 2009; Dobbin, 1992; Jung & Dobbin, 2012). Ironically, such market forces are negatively associated with clean technology innovation, which is nested in broader institutional demands for innovating for the future (Hoffman & Jennings, 2015). Hence, our empirical case highlights the potential limitations to market logics in corporate environmentalism by presenting the paradox of institutional investor ownership: there are somehow fundamental tensions between ‘save for the future’ and ‘innovate for the future.’