
Knowledge governance: contributions and unresolved issues

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Abstract: *Knowledge governance* joins knowledge management, strategic management, and theories of the firm, and considers how governance mechanisms influence knowledge processes, such as sharing, retaining and creating knowledge. We survey the papers in this volume of the special issue, and discuss future research challenges.

Keywords: governance; knowledge management.

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1 Introduction

Knowledge governance (Grandori, 1997) considers how governance mechanisms influence processes of knowledge use, creation, retention, integration and sharing. Knowledge governance joins a number of parallel developments, such as the convergence of organisational economics (transaction cost economics, property rights, and agency theory) (Mahoney, 2005) and the knowledge-based perspective in organisation theory and strategic management (Foss, 2007).

Knowledge governance research emphasises a design-oriented approach (Nickerson and Zenger, 2004) that focuses on organisational structures and governance mechanisms, such as incentives, authority, and information systems to improve knowledge-based goals (e.g. knowledge sharing; Osterloh and Frey, 2000). Here we briefly discuss the contributions to this second volume of our special issue on knowledge governance, and conclude by briefly discussing some unresolved issues.

2 Papers in this issue

The first paper by Vaaler and Bowie identifies a fundamental business issue of whether and how Multinational Enterprises (MNEs) balance the needs to be both respectful of the different countries' business norms where they operate and to be consistent in the application of business norms (e.g. organisational routines) across their operations to

maintain their organisational identity. This paper uses Transaction Cost Economics (TCE) theory to explain why certain types of knowledge-intensive MNEs are more likely to employ 'universal' ethical business norms in all countries in which it operates for reasons of efficiency and effectiveness. This paper then attempts to establish the TCE-related conditions under which knowledge-intensive MNEs would establish such universal ethical business norms, as (a) non-discrimination; (b) honesty and transparency; and (c) self-control and fairness.

The next paper by Yin and Shanley considers a particular discrete structural form (Williamson, 1996), namely franchising. This paper notes that most franchise systems own some units while franchising others, which is a form of tapered integration (Porter, 1980). Yin and Shanley suggest a learning perspective of mixing company-owned and franchised units and propose that the different governance structures used by parent firms concerning their local outlets lead to different learning environments and thus contribute to different performance results. While company-owned outlets tend to have a high level of organisational routines (Nelson and Winter, 1982), independent outlets tend to have a high level of local adaptability. Franchisee-owned outlets tend to have a moderate level of organisational routines and adaptability. Finally, multi-unit franchisee-owned outlets have a higher level of organisational routines and associated capabilities, and a lower level of local adaptability relative to single-unit franchisee-owned outlets. Thus, Yin and Shanley's study contributes to the research literature joining capabilities and knowledge governance.

The third paper by Lajili proposes a framework to explain and predict managerial decision concerning both general and firm-specific training and human capital development. First, the paper provides human capital theory predictions with regards to human capital investments and governance decisions. Second, the paper provides transaction costs theory predictions on knowledge-specific investments and governance. Finally, the paper offers predictions based on agency, property rights and knowledge-based theories.

The following paper by Carpenter, Westphal and McDonald explores micro-processes relating corporate governance to a firm's knowledge management capabilities. The developed theory builds on the premise that the Top Management Team (TMT) is the information processing centre of the firm in its relationship with the environment. The paper submits that changes in board compositions that increase the social independence (e.g. increase demographic dissimilarity, decrease friendship ties, and reduce common board ties) from CEOs may affect TMT member selection. This theory is tested with data from an original survey of CEOs and 263 large and medium-sized companies US global corporations together with archival data on board composition and management characteristics. Empirical results corroborate that social psychological cognitions among corporate leaders may lead to less diversity in top management teams, including diversity of social networks.

The final paper of this volume by Arikan, Arikan and Kiousis examines the optimal technology investment strategy for a firm seeking to invest in a winner-take-all market. In particular, this paper considers an investment scenario of high technology but limited flexibility and proposes a search model in addressing the specific investment problem. This paper thus shows that search models can be a useful addition to the existing set of approaches (e.g. real options theory) to managing technological investments, and may be especially applicable in cases of radical or disruptive innovations.

3 Concluding thoughts

The purpose of this (two volume) special issue has been to showcase a number of exemplars of knowledge governance research. Collectively, they advance our understanding of knowledge governance. However, many knowledge governance issues remain open. In the following we briefly discuss these under the headings of ‘causal relations between capabilities and governance’, and ‘behavioural foundations and multi-level issues’.

Causal relations between capabilities and governance. Much of the impetus behind the recent interest in knowledge governance has emerged from the critical dialogue that has been going on for about two decades between proponents of various branches of organisational economics (transaction cost economics, agency theory, property rights theory) and those endorsing the knowledge-based view of the firm (in its various incarnations). Proponents of the latter suggest that organisational economics tend to treat production knowledge as essentially homogenous across firms in an industry, flying in the face of a reality of differential capabilities (e.g. Demsetz, 1988). Echoing Richardson (1972), these knowledge-based scholars submit that differential capabilities are determinants of economic organisation (notably the boundaries of the firm) on par with (or, perhaps even more important than) such determinants as asset specificity, frequency and uncertainty (e.g. Langlois, 1992; Jacobides and Winter, 1995). Williamson (1999) granted that capabilities enter into the explanation of the boundaries of the firm. However, the knowledge-based view gives capabilities explanatory primacy, and does not examine the origins of capabilities and how they are influenced by governance structures and mechanisms. In contrast, the knowledge governance approach in organisational economics reverses the causal order and examines how (differential) capabilities emerge from the deployment of governance structures and mechanisms. In this special issue, the papers by Vaaler and Bowie, Yin and Shanley, and Lajili take such an approach.

However, knowledge is a peculiar asset. We cannot exactly anticipate future knowledge, because, if we could, it would not be future knowledge but rather present knowledge (Popper, 1961). Relatedly, as Lachmann (1976) maintains, time and knowledge belong together; in fact, we cannot imagine time passing without knowledge changing, partly unpredictably (Kirzner, 1997). Thus, knowledge governance must take surprises into account (i.e. contractual safeguards must address the possibility of the unexpected; cf. Loasby, 1976). This suggests that knowledge considerations do drive the choice of governance structures and mechanisms.¹

In actuality, of course, knowledge and governance *co-evolve* (cf. also Jacobides and Winter, 2005); the ‘governance first’ approach of the knowledge governance approach or the ‘capabilities first’ approach of the capabilities view are only heuristic fictions. However, very little theorising and even less empirical work exists on such co-evolution; although both organisational economics and the knowledge based view have the potential to tackle process issues of co-evolving governance and knowledge (Williamson, 1996; Jacobides and Winter, 2005). Addressing this co-evolution is a major explanatory task ahead for the knowledge governance approach.

Behavioural foundations and multi-level issues. The papers by Carpenter, Westphal and McDonald, and Arikan, Arikan and Kiouisis point to a second major issue in need for clarification and development. These papers discuss (very different) aspects of the behavioural foundations of knowledge governance. In fact, by discussing the social psychology of TMTs and search models they add further behavioural foundations to an already rather heterogeneous set of such foundations for knowledge governance, which ranges from the perfect rationality/extrinsic motivation foundations of agency theory

(e.g. Zenger, 1994) to the bounded rationality/intrinsic motivation foundation of self-determination theory (e.g. Osterloh and Frey, 2000; Gottschalg and Zollo, 2007). These behavioural foundations are far from settled; for example, agency theory and self-determination theory seem to have opposing predictions with respect to the consequences of performance incentives.

While working with different behavioural foundations, depending on the problem at hand, is an entirely legitimate approach, there is also an obvious need in the knowledge governance approach to establish which behavioural foundations are appropriate for which kind of problems. Some progress has been made here. Motivational psychology, particularly self-determination theory (Deci and Ryan, 1985), has proved useful in both theoretical and empirical work dealing with knowledge-related behaviours (Cabrera et al., 2006). A key and apparently fairly robust conclusion from this line of research is that there is a close association between creative, knowledge-related behaviours and 'autonomous' motivation.

However, most of this research is uni-level, and accordingly does not systematically consider how, for example, autonomous behaviour may be called forth, guided in certain directions rather than others, by the deployment of certain kinds of specific governance mechanisms, HR policies, and the exercise of certain management styles. These issues call for multi-level research (for important conceptual beginnings, see Osterloh and Frey, 2000; Gottschalg and Zollo, 2007).

In sum, better foundations for the knowledge governance approach seems to require deeper connections with the organisational behaviour literature, in terms of relying more on psychology-based work examining micro issues having to do with motivations for knowledge-related behaviours as well as looking at those behaviours themselves (Epple et al., 1996). However, those foundations must inherently involve a linking of behaviours to higher levels (e.g. groups, the level of deployment of HR practices, etc.) in terms of antecedents as well as outcomes of the relevant behaviours. It seems clear that the need for a multi-level approach in knowledge governance is a pressing one. Most phenomena that relate to knowledge processes in (and between) organisations require, in principle, such an approach. However, knowledge governance research has so far made few strides forward in the endeavour to systematically link micro and macro levels of analysis. No doubt, the inherent complexities of building multi-level theory and the well-known practical difficulties of sampling data at multiple levels play a role here (Rousseau, 1985). However, ultimately building inter-level links is a necessity for sound knowledge governance research. Knowledge-related collective level constructs (e.g. capabilities) need to be placed on a secure foundation in individual actions and interactions, and the nature of contextual influences from organisational variables in terms of impact on individuals' knowledge-related behaviours need further theorising.

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Note

- 1 Knowledge governance research tries to capture this by calling for an adequate dimensionalisation of knowledge transactions (Grandori, 2001; Foss, 2007).