Organizational Learning and Human Capital: Similarities and Tensions

Abstract

We apply a formal model to understand the effects of the relative learning rates of embedded agents and the institutional field on organizational outcomes.

Keywords:
Embedded Agency

Title: Sub-title

Organizations today increasingly rely on intangible assets such as human capital to gain a competitive advantage (e.g., Barney (1991)) some of the linkages between micro and macro areas are already occurring, for example in the domain of human capital and strategy (e.g. Coff & Kryscynski (2011); Ployhart & Moliterno (2011). The idea of microfoundations can be traced to historical tensions between micro and macro disciplines in the social sciences. The central tension has been whether explanations of individual and collective or societal outcomes should focus on the individual or societal and cultural level (Udehn, 2001) Similar intuition has been echoed and further reinforced in some of the most highly cited and seminal work in strategic management over the past two decades, specifically arguing that individual-level considerations simply are not relevant for strategy and firm-level outcomes (Henderson & Cockburn, 1994; Kogut & Zander, 1992, 1996; Nahapiet & Ghoshal, 1998; Spender, 1996). This literature places an emphasis on macro factors such as firm-level knowledge and competencies, social capital, networks, and other collective constructs. (Henderson & Cockburn, 1994) assume in their highly cited empirical analysis of organizational competencies that individuals are homogeneous, and thus they ascribe performance variance to collective-level routines and practices. The microfoundations literature and movement, then, can be seen as a reaction to an over-emphasis on collective factors, as well as the seeming disregard for individual-level and social interactional considerations in explaining organizational outcomes.

To provide another specific example, foundational and highly cited macro concepts such as firm-level absorptive capacity (Cohen & Levinthal, 1990) can be directly traced to equivalent, individual-level concepts in psychology. These individual-level concepts were applied directly to the firm and coined as ?absorptive capacity?. While the concept of absorptive capacity, of course, is important, the paper itself did not explicitly theorize how the concept might need to change and evolve when applied to the organization as a unitary actor (though, subsequent efforts have been made in this direction). Other examples of the one-to-one application of concepts from micro to macro include cognition and learning by association and analogy (e.g. Gavetti (2012); Gavetti et al. (2005)).

From an organizational learning perspective, recipient firms are likely to be concerned with two issues related to ability to learn: first, whether they can effectively understand and apply the spilled over knowledge; and second, the additional complementary opportunities for learning from the originator. If the knowledge is in one of the areas of specialization of the recipient firm, the recipient?s absorptive capacity (Cohen & Levinthal, 1990) for the spilled over knowledge as well as for complementary knowledge is likely to be high. The absorptive capacity of the firm for external technological knowledge is dependent to a significant extent on the degree of its knowledge in a particular technological field (Schoenmakers & Duysters, 2006). Further, the development and accumulation of tacit knowledge (Polanyi & Sen, 2009) related to the technology is also dependent on specialization (Enright, 1991). Thus a recipient with greater specialization will possess well-developed internal mechanisms for understanding and exploiting spillover knowledge.

their macro approach, and assumptions about the homogeneity of human capital, by arguing that stars cannot be a source of sustainable advantage as they appropriate their marginal rents. In other words, the reason that some have focused directly on collective capability is that information about the capability of particular individuals (if markets are relatively efficient), such as stars, is likely to be widely available and thus these individuals are perhaps able to appropriate any rents

associated with their abilities.

Our theory also links work in the knowledge- based view (e.g., Grant (1996); Kogut & Zander (1992) with work on strategic human capital (e.g., Campbell et al. (2012); Coff (1997). The literature has long held that routines are ?repositories and carriers of knowledge? (Hodgson, 2008: 25). We show that organizational memory is a natural outcome of the process through which routines emerge, and knowledge is thus not only in the minds of (and embodied in the habits of) individuals, but also in the connections between individuals. Con-sider employee turnover. We nd that the exit of one individual does not undermine the performance of the routine. Even if the departing individual does not explicitly transfer his or her knowledge to the replacement person, the routinized behavior of the remaining individuals will lead him or her to select a task approach that resembles his or her predecessor. Thus, the knowledge embodied in the connections between individuals has the properties of tacit knowledge. Once formed, such knowledge is not subject to expropriation by individuals ? it is inher- ently the property of the organization.

Coff & Kryscynski (2011) explored human capital-based competitive advantage and, while their focus was clearly within the firm, they did note that when causal ambiguity is derived from tacit knowledge it creates problems of imitation for both people within the firm and for competitors.

Characteristics, Base discipline, level of analysis, key assumptions about human behavior

ORGANIZATIONAL LEARNING

Organizational learning is the process by which an organization acquires knowledge as a result of its experiences. It is possible for an organization to acquire such knowledge either directly ? through its own activities ? or indirectly ? through observing the actions of other units. Organizational learning is a change in the organization?s knowledge that occurs as a function of experience Organizations can learn directly from their own experience or indirectly from the experience of other units (Levitt & March, 1988) the knowledge the organization learns from experience can manifest itself in changes in cognitions of organization members, in the organization?s routines or in characteristics of its performance such as speed or accuracy. The knowledge can be embedded in a variety of repositories (Walsh and Ungson 1991) including tools (Kogut and Zander 1992), routines, social networks and transactive memory systems. Once the knowledge is embedded in a supra-individual repository, the knowledge would evidence some persistence, even if turnover of individuals occurred.

Extensive attention has focused on understanding the relative advantage of two different modes of organizational learning, exploration and exploitation March (1991). Exploration includes the search for new possibilities, experimentation and risk-taking. For instance, an electronic firm positioning itself as an innovator may want to explicitly set up exploratory learning processes to collect novel ideas from consumer focus groups on a regular basis. Conversely, exploitation involves efficiency and refinement. For example, a firm focusing on exploitation might set up processes to identify and correct the causes of production defects.

Organizational learning is viewed as routine-based, history-dependent, and target-oriented. Organizations are seen as learning by encoding inferences from history into routines that guide behavior.

HUMAN CAPITAL

Building upon Becker (1962) seminal work, strategists assume that human resources are heterogeneous and endowed with different types and degrees of human capital. Human capital captures stocks of education, information and health that have been accumulated both on and off the job (Becker, 1962). Given that human resources are not randomly distributed across firms, the optimal matching of firms, workers and jobs is crucial in achieving a competitive advantage.

Some authors have stressed that individuals possess portfolios of both general and specific human capital, and that the portfolio and its use by the firm determine its value (Campbell et al., 2012). Others have argued that human capital is never specific in the sense that no other firm can use it. Lazear (2009) has suggested that all human capital, is general.

not much about how a company can redirect the actions and behaviors of its critical human capital to deliver on the changing demands of the external marketplace. This is just one example of demanding, practical human capital problems that managers deal with every day but that our academic literature seems to ignore?yet more evidence of the commonly discussed divide between theory and practice (Bartunek & Rynes, 2014). This emerging domain seems to be bringing together scholars and practitioners from two different traditions: strategy and human resource management (Wright et al., 2014). Based on logic from the resource-based view (RBV), firm-specific human capital should be a particularly important strategic resource because it is uniquely valuable in the focal firm. The difficulties with transferring firm-specific human capital to different firms provide theoretical isolating mechanisms that allow the firm to capture quasi-rents (Barney, 1991; Campbell et al., 2012). The collective wisdom of strategic human capital scholars, then, is that firm-specific human capital is a critically important source of sustainable competitive advantage.

The FSHC paradox is that firms need workers to invest in firm-specific human capital, but workers don?t always want to make these investments (Wang & Barney, 2006). Workers have a choice about whether to invest in general or firm-specific human capital. If they invest in general human capital they can always take their human capital to another employer and get paid appropriately for their skills. If they invest in firm-specific human capital, they can extract the value from those skills only in their current firm. If the firm goes out of business, if the employees need to change jobs for personal reasons, or if the firm decides to act opportunistically and not compensate the employees for these skills, the employees cannot achieve any reasonable return on their investments. Generally, risk-averse employees are more likely to invest in general human capital, because there is less risk of losing the value of the human capital investment (see Wang & Barney (2006) for a more detailed review of the paradox). The focus on this paradox has led some scholars to claim that we have a global underinvestment in firmspecific human capital that may be holding back our economic growth and development.

Assumption 1: Firm-specific human capital is important for a firm?s competitive performance

Lazear (2009) suggested that firm-specific human capital is not particularly important in practice. He argued that some of the knowledge that is truly firm specific, such as finding the bathrooms, is important for daily functioning but not particularly relevant for competitive performance. Thus, he proposed that different combinations of general skills may be more practically relevant than trying to search for unique and difficult-to-transfer skills.

The resources and (dynamic) capabilities perspective?which we will refer to as the capabilities approach?maintains that firms possessing, creating, and adapting resources and capabilities can capture and sustain competitive advantage (Barney, 1991; Penrose, 1959; Teece et al., 1997). The

governance approach maintains that higher economic performance can be achieved by investing in complementary and cospecialized assets (Helfat, 1997; Teece, 1986) and by governing them in an economizing way (Oxley, 1997; Williamson, 1985).

One recent and major break from traditional HC research is the focus on the strategic importance of HC (Wright et al., 2014). This focus has stemmed primarily from the combined movements of HR into strategic HR (e.g., Becker & Gerhart, 1996) and strategy into examining the role of people in the organization (Hitt et al., 2001). This convergence between strategy and strategic HR has further accelerated with the increasing focus on microfoundations in strategy (Nyberg et al., 2014). The common theme surrounding this convergence is the focus on how the human element can benefit strategic outcomes. This change in focus from thinking about how individuals acquire more capital in the marketplace to thinking about how organizations use that capital necessitates rethinking the HC construct and more specifically labeling the different constructs that make up this growing strategic human capital resource domain (Wright et al., 2014). Specifically, as researchers move away from examining how individuals develop in the marketplace (e.g., greater education to secure greater work outcomes) toward examining how employees (either at the individual level, such as a CEO, or at the aggregate level, such as a work unit) contribute to unit-level outcomes, they must recognize that this is no longer HC as it was originally conceptualized (Ployhart et al., 2014). Further, this shift is necessary as we think in terms of the relationship between employees and unit outcomes, or as Molloy & Barney (2015), ?[V]alue is created only when the use of human capital increases a firm?s revenues and/or decreases a firm?s costs.? This fundamental change in the construct has evolved, albeit without name. For instance, strategy researchers have long used this higher-order concept of HC to examine the impact of aggregate levels of knowledge, skills, abilities, and other characteristics (KSAOs) on organizational outcomes, while still referring to it as HC (Nyberg et al., 2014). This creates challenges when conversing across levels and disciplines about the role of people in helping to achieve organizational outcomes because traditional HC scholars and those trying to apply these lessons to unit-level outcomes often approach the issues with different conceptions of the construct. That is, as Ployhart (2015) notes, the primary interest of much of the micro research involving HC continues to focus on the individual (i.e., HC) without much regard for the strategic implications of that individual. This contrasts starkly with macro research (even when moving toward microfoundations) that implicitly thinks about HCR even while using HC language. To help reconcile these challenges, Ployhart et al. (2014) declared HC to be dead and introduced the term HCR. Naturally, HC remains a vital construct and one that continues to deserve attention, but it should be limited to a focus on the KSAOs at the individual level of analysis. Hence, we too advocate for using the term HCR when thinking about unit-level outcomes. By using HCR, a construct that is defined as unit relevant, researchers would begin projects with a common language and set of assumptions?building blocks that are necessary for developing strong foundations that can facilitate scientific advancement (Schwab, 1980).

Methodological Issues

Gerhart (2007) has summarized the empirical challenges of HRM research. Weller and Gerhart (2012) provide an overview for the international context. In both cases, two issues deserve attention: first, because HRM is multi-level, many empirical problems centre on some sort of nested data. Examples include individuals nested in firms nested in industries. The problem is that clustered data are not independent, and thus assumptions of the standard regression model are violated.

Violations may result in increased type 1 error rates because the degrees of freedom differ within the data and standard errors may be biased downwards for higher-level variables. Second, it is difficult to establish the causal link between HRM and firm performance. Since most field data are not randomly drawn from the population (i.e., ?treatments? like HRM practices are not randomly assigned), the HRM?performance relationship is subject to endogeneity concerns. Endogeneity may stem from various sources such as omitted variables, simultaneity or non-random measurement error.

THEORY

On the topic of the general hypotheses

Figure **??** lays out the average score charts for four agent-field combinations while enforcing the field to start in Right of Center (this is the same as saying $p^0_{0,F} = 0.75$).

Leading into H1a We do so since the scale is symmetric across the Center (C), any initial mapping

Hypothesis 1a: When the institutional field is open to influence, slow learning adversarial agents will raise overall performance higher than slow learning agents with a neutral orientation

Leading into H2a This trend is confirmed further in Figure **??** where the learning rates of agents are increased even further to 'Fast'.

Hypothesis 2a: For the same initial outcome preferences, the overall performance score varies curvilinearly with difference in the rates of learning of the agent and the institutional field

LIMITATIONS AND FUTURE WORK

CONCLUSION

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