THE INDIVIDUAL AND THE ORGANIZATION: LOCATING KNOWLEDGE CAPABILITIES IN PROFESSIONAL SERVICE FIRMS

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ABSTRACT

We investigate what types of human capital are most valuable to professional service firms. Using the data from the New York City advertising industry from 1924-1996, we find that the departure of unheralded back office executives is more damaging than the departure of many prominent client-facing executives.

INTRODUCTION

In the modern information age, a firm's effective management of organizational knowledge has become increasingly important for achieving strategic objectives (Carlaw, Oxley, Walker, Thorns, & Nuth, 2006; Drucker, 1993). Exploiting organizational knowledge improves a firm's likelihood of discovering new market opportunities (Wiklund & Shepherd, 2003), increasing market value (DeCarolis & Deeds, 1999), and sustaining a prolonged competitive advantage (McEvily & Chakravarthy, 2002). The current literature on the knowledge-based view offers two competing frames of reference regarding the location of competitively significant organizational knowledge (Abell, Felin, & Foss, 2008). The dominant perspective posits that collective-level routines and structures are the key carriers of organizational knowledge to competitive advantage (Nelson & Winter, 1982). In this view, the knowledge embedded in any single person is not the key to their competitive advantage; rather, it is the collective knowledge embedded in the structure of interactions between employees that is paramount (Argote & Darr, 2000). A growing number of scholars have begun to address the opposing view by developing a "microfoundation" for strategic analysis, to look specifically at how the actions of individuals contribute directly to collective outcomes (Felin & Foss, 2005, 2006; Gavetti, 2005). Proponents of this knowledge-based view suggest that the knowledge residing within individuals is the principal source of competitive advantage (Felin & Hesterly, 2007), shifting the analytical focus away from routines and toward issues of information asymmetry and employee turnover (Coff, 1997).

In this paper we advance the knowledge-based view (KBV) literature by examining (1) whether individual level knowledge matters for organizational performance and (2) what types of individuals at the highest levels of the organizations have the most critical expertise and thus the strongest impact on firm level outcomes. To accomplish these objectives we examine employee mobility via organizational "parenting" events whereby one or more employees leave one organization to found a competing organization. Based on extant KBV research, we develop hypotheses about how employee departure will affect firm survival and test them in the context of the U.S. advertising industry, an ideal context for this inquiry because competitive advantage is less reliant on technological resources than on a firm's ability to manage its knowledge-based capabilities (Grant, 1996a; Greenwood, Suddaby, & McDougald, 2006; Thomas, 1978).

THEORY AND HYPOTHESES

Collective View vs. Individual View of Knowledge-Based Capabilities

As actionable knowledge has become recognized as the key resource driving competitive advantage in modern markets, the knowledge-based view has blended research streams on competitive dynamics and organizational learning (Grant, 1996b) in an attempt to understand why certain firms are more successful than others. The dominant perspective within the knowledge-based view assigns an ontological preference at the collective unit of analysis (Felin & Foss, 2009). Though credence is given to the knowledge of individual employees, it is not seen as directly tied to the development of organizational capabilities (Teece, Pisano, & Shuen, 1997). Conversely, the human capital perspective suggests that tacit, appropriable, inimitable knowledge—a primary source of competitive advantage—may also exist as individual expertise (Felin & Foss, 2006; Grant, 1996a). This perspective is based on the epistemological assumption that individuals are the only components of organizations that can learn; thus, the locus of knowledge and expertise within a firm should reside primarily within the minds of its employees (Simon, 1991). Previous research has suggested that the level of human capital present in a firm's upper management can significantly increase a firm's ability to survive (Pennings, Lee, & van Witteloostuijn, 1998), to earn profits (Hitt, Biermant, Shimizu, & Kochhar, 2001), and to retain clients (Seabright, Levinthal, & Fichman, 1992).

One of the central arguments within the collective version of the knowledge-based view is that employee turnover should have a negligible effect on firm outcomes because knowledge transfer and exploitation is supraindividual (Kogut & Zander, 1992: 383). Thus, to compare the collective and individual perspectives of knowledge-based capabilities, we analyze the interfirm movement of high-ranking executives in the advertising industry. We utilize an organizational genealogical framework comparing the failure rates of new firms founded by individuals from preexisting firms within the same industry (e.g. Phillips, 2002). This incident is labeled a parenting event, the preexisting firm being labeled as the parent firm and the newly founded firm labeled as the progeny firm.

The perspective held within the advertising industry argues that the processes required to operate an advertising agency are relatively easy to codify and that the knowledge and experience of individual personnel is the key to success (Frey & Davis, 1958; Hanan, 1966; Keeler & Haase, 1927). Consistent with earlier research on executive mobility (Phillips, 2002; Wezel, Cattani, & Pennings, 2006), we hypothesize that parent firms should suffer from employee departure and progeny firms should benefit for single and multiple executive departures:

H_{1A}: After a parenting event, parent firms will be more likely to fail than nonparent firms.
H_{1B}: After a parenting event, progeny firms will be less likely to fail than non-progeny de novo firms.

H_{2A}: Parent firms that lose multiple executives to a progeny firm will be more likely to fail than parent firms that lose a single executive.
H_{2B}: Progeny firms that are founded by multiple executives from a parent firm will be less likely to fail than progeny firms that are founded by a single parent executive.

Functional Position of Departing Executive

If knowledge of the organization can be decomposed to the knowledge that resides at the individual level, then the departure of people in different functional positions should have varying effects on the firm, depending on how important the particular knowledge held by an individual is for the organization. We adopt Thompson's (1967) open system model, in which an organization's systematic and predictable processes are managed within the technical-core domain and the more variable and nonroutine processes tied to external contingencies are managed at the organization's boundaries. Executives that work at the boundaries of the organizations are faced with the uncertainty of environmental changes and are expected to use expert discretion based on the tacit knowledge they have accumulated from previous experience. In advertising agencies, account executives and creative executives serve as boundary spanners, and it their departure should have a more drastic effect on parents and progenies (Broschak, 2004). We, therefore, hypothesize:

H_{3A}: Parent firms that lose creative executives will be more likely to fail than parent firms that lose noncreative executives.
H_{3B}: Progeny firms that are founded by creative executives will be less likely to fail than progenies founded by noncreative executives.

H_{4A}: Parent firms that lose account executives will be more likely to fail than parent firms that lose nonaccount executives.
H_{4B}: Progeny firms that are founded by account executives will be less likely to fail than progenies founded by nonaccount executives.

Chief Executive Exit

Chief executives fall between the aforementioned categories because as part of their role they not only manage their organizations' environments (boundary spanning) but also fine-tune their organizations' effectiveness (technical core) (Waller, Huber, & Glick, 1995). We expect stronger effects for chief executives departure and foundings for parent and progeny firms, respectively:

H_{5A}: Parent firms that lose a chief executive will be more likely to fail than parent firms that lose other executives.
H_{5B}: Progeny firms that are founded by chief executives will be less likely to fail than progenies founded by other executives.

METHODS

Our dataset is comprised of all advertising firms operating in New York City from 1924-1996 and our primary source was *The Agency List of the Standard Advertising Register* (The Red Books), an annual listing of all the major advertising agencies in the United States. For optimal data collection efficiency, the directories were coded in three- and four-year intervals, depending on directory availability. The final database comprised 3,288 advertising agencies over 19 observation periods and 8,537 firm-year observations. To eliminate selection bias from left-censoring, we removed all 221 advertising agencies in existence in 1924.

Dependent Variable

*Organizational failure***.** Organizational failure was coded as the year in which a firm was no longer listed in *The Red Books*. To protect against spurious deletions, we considered agencies as failed if they remained unlisted for two consecutive observation periods. To control for potential bias in the data from merger activity, we considered as a merger/acquisition all parenting events in which over 75% of the listed employees in one agency moved to "start" another agency and the parent firm was coded as censored rather than failed.

Independent Variables

Progeny indicator. A firm was coded as a progeny firm if one (Single Executive Progeny) or more (Multiple Executive Progeny) of its founding executives were members of another agency in a previous observation period.

Parent indicator. We also created dummy variables for the each of the following three categories of parenting event: (1) a single executive leaving to found a single progeny firm, (2) multiple executives leaving to found a single progeny firm, and (3) multiple executives leaving to found multiple progeny firms.

Functional position of executive. Using qualitative data from interviews with current and former advertising executives as well as the trade literature, we divided advertising agencies into six functional areas: *Account Executives*, who are the primary points of contact between an agency and its clients; *Creative Executives*, who are the writers, artists, graphic designers, etc., that create advertisement content; *Media Executives*, who specialize in buying time and space in specific media (e.g., print, radio, television) for clients; *Production Executives*, who manage the task of coordinating with the different departments to create the final work product; *Back Office Executives*, who focus specifically on the internal operations of the firm, such as treasury and correspondence; *General Management Executives*, who are generically titled (i.e., "Vice President") and are most likely tasked with managing the internal operations and strategic direction of the agency; *Chief Executives*, who occupy the highest ranking positions within an agency such as "President" or "Chairman" in larger firms, and "Owner" or "Proprietor" in smaller firms.

Control Variables

At the executive level we controlled for departing executive(s) experience, functional diversity, and multi-position status. At the firm level we controlled for size, age, total number of executive exits, number of parents, failure of parents. At the industry level we controlled for population density, industry growth, and historical era.

Method of Estimation

The effect of parenting events on firm failure rates was estimated using the Prentice-Gloeckler-Meyer (PGM) hazard regression model (Jenkins, 1997) in STATA (version 10) The hazard rate is calculated in the complementary log-log mathematical form as such:

$$h(t) = 1 - \exp[-\exp(X_{ij}\beta + \gamma_j)] \qquad (1)$$

where $X_{ij}\beta$ is the set of independent variables and γ_j represents the measure of error. The independent variables are assumed to have proportional effects on the hazard rate and the coefficients are estimated using logistic probabilities.

Results[1]

We find significant support for our hypotheses regarding the overall effect of parenting events on parent and progeny firm survival (H1a, H1b). Parent firms in our study are up to 3.5 times more likely to fail than similar other firms. Progeny firms are 15% less likely to fail than other *de novo* firms. The results also support our hypotheses for parenting events involving multiple executives (H2a, H2b) and chief executives (H5a, H5b). Counter to hypotheses H3a and H4a, the departures of boundary-spanning executives, represented in this context as account managers and creative executives, do not have a significant impact on the risk of failure for the parent firm. One type of technical-core executives, however, had a significant effect on parent firm failure: Losing a back office executive increases failure likelihood by 28%. The functional background of executives does not have a significant effect on the failure rate of progeny firms, providing no support for hypotheses H3b and H4b.

DISCUSSION AND CONCLUSION

Our empirical results show that knowledge resides both at the individual and collective level, as hypothesized by Felin and Hesterly (2007). Furthermore, we show that some individuals are much more critical for collective performance of the organizations then others, and that these effects are much stronger for departing than founding executives. One of the key contributions of our study to the organizational genealogy literature is the finding that a departing/founding executive's functional background has a differential impact on the viability of firms. Contrary to our hypotheses, the mobility of creative executives and account executives who occupy the role of boundary spanners had no effect on the parent firms they were leaving or the progeny firms they were joining. We were particularly surprised about this in the case of creative talent due to the trade press we reviewed which highlights the importance of the creative individual for winning and retaining clients (Goldman, 1997). A survey of salary levels for different positions in advertising firms (Advertising Age & Irwin Broh & Associates, 2004) confirms that creative executives are perceived to be very valuable: They are the second highest paid job in the industry with pay packages averaging $133,000 compared with the average take-home pay of CEOs, $201,000. By contrast, lead account executives are making on average $92,000, chief financial officers $99,000, and management supervisors $106,000. Here, our empirical investigation provides evidence that the perceptions within the advertising industry are not always aligned with the true nature of the industry's dynamics.

Aside from the chief executives, it is the executives in a technical-core function within advertising agencies that create the most problems for parent firms when they leave. This finding underscores the importance and value of the knowledge that back office executives accumulate at the individual level. These executives work in areas such as finance, correspondence, and office management, where they need to become knowledgeable about an agency's billing procedures, salaries, performance reviews, organizational structure, cash flow, etc. Our results suggest that these functions play a vital role in coordinating processes because they are uniquely firm-specific. When one of these executives departs, replacements may struggle with managing these complex processes, which in turn jeopardizes the functioning of the firm. Moreover, data on the frequency of different functions in our sample indicates that there are significantly fewer experienced back office executives within the labor market than creative or account executives. Thus, the results of this study, imply that it is important to determine how firm-specific the knowledge is and how difficult and costly it would be to replace an employed with that knowledge (Coff, 1997). For advertising firms it is apparently more difficult to hire new good business process managers than creative talent. Although the ability to come up with creative ad campaigns is a critical skill, it is not a characteristic that embeds an individual within an organization as deeply as back office work does. CEOs in our sample appear to understand this fact and depart more frequently with back office executives than any other functional group.

Our results also suggest the importance of those working in the KBV arena to think more deeply about the circumstances upon which capabilities and knowledge at the firm level can be easily decomposed to skills and knowledge at the individual level. Thompson's (1967) distinction between pooled, sequential, and reciprocal interdependence among tasks strikes us as a good starting point to theorize about different levels of decomposability. In the case where organizations are largely a phenomenon of pooled or sequential interdependence, individual human beings would appear directly responsible for organizational level performance outcomes. This is particularly true for human asset intensive organizations such as professional service firms (Coff, 1997). Designing and managing these organizations requires understanding the role that individuals as opposed to, or in combination with, organization-level processes play in an organization's effort to gain and sustain competitive advantage (Rothaermel & Hess, 2007). Scholars working to bridge the work in organizational theory and organizational economics are uniquely positioned to provide novel insights about the structure, behavior, and performance of these organizations.

[1] Due to space limitation the results tables were omitted but are available at: http://professor-murmann.net/publications/bermiss-murmann.pdf

REFERENCES AVAILABLE FROM THE AUTHORS