*Strategic Management Journal*
*Strat. Mgmt. J.*, **36**: 1697–1716 (2015)
Published online EarlyView 4 September 2014 in Wiley Online Library (wileyonlinelibrary.com) DOI: 10.1002/smj.2320
*Received 12 November 2012*; *Final revision received 23 July 2014*

# WHO MATTERS MORE? THE IMPACT OF FUNCTIONAL BACKGROUND AND TOP EXECUTIVE MOBILITY ON FIRM SURVIVAL

Y. SEKOU BERMISS[1]* and JOHANN P. MURMANN[2]
[1] *Department of Management, University of Texas at Austin, Austin, Texas, U.S.A.*
[2] *School of Management, Australian School of Business, University of New South Wales, Sydney, NSW, Australia*

*Do some top executives matter more than others? Integrating insights from upper echelons and executive mobility research, we suggest that the functional roles performed by top executives shape their value to the firm. We examine the effects of interfirm executive mobility on firm survival for New York City advertising firms from 1924 to 1996. We find that, while losing any top executive is damaging, the loss of a top executive whose functional role focuses on internal firm processes is more detrimental to firm survival than losing a top executive whose functional role focuses on managing external exchange relationships. Additionally, in situations when multiple executives leave simultaneously, firms are more negatively affected when the group departing is functionally heterogeneous.* 

## INTRODUCTION

The upper echelons perspective argues that a firm is a reflection of its top executives and investigates the extent to which top executives matter because of "the choices of which products and markets to emphasize, how to outdo competitors, how fast to grow, and so on" (Finkelstein, Hambrick, and Cannella, 2008: 19). Notably, a majority of this work focuses on chief executive officers (CEOs) and the contextual factors at the firm level (Finkelstein and Hambrick, 1990), industry level (Haleblian and Finkelstein, 1993), and country level (Crossland and Hambrick, 2007) that constrain the managerial discretion CEOs can exercise. Aside from the CEO position, however, upper echelons research has devoted little attention to examining the individual value of top executives to their respective firms. Studies of top management teams (TMTs), for instance, treat the cadre of top executives at the apex of the organization as a unitary construct, focusing on how the composition, structure, and processes of the TMT affect strategic decisions and ultimately outcomes for a firm (Carpenter, Geletkanycz, and Sanders, 2004). The relative value that individual non-CEO executives provide to the firm is largely ignored or is framed in specific relation to the actions of the CEO (e.g. Boeker, 1992).

We attend to this gap in the upper echelons perspective by exploring how performing specific functional roles makes certain top executives more valuable to a firm than others. Top executives serve various managerial roles, in which their attention is focused on distinct aspects of their firm's task environment (Mintzberg, 1973). An executive serving as a firm's chief operations officer, for example, will be primarily responsible for managing the firm's internal operations, which allows the CEO to dedicate more attention towards issues external to the firm (Hambrick and Cannella, 2004). While

Keywords: executive mobility; upper echelons; professional service firms; strategic human capital; knowledge-based view
*Correspondence to: Y. Sekou Bermiss, 2110 Speedway, Stop B6300, CBA 4.202, Austin TX 78712, U.S.A. E-mail: sekou.bermiss@mccombs.utexas.edu

the existence of these managerial roles shapes how firms are governed and indirectly how they perform, it is not clear from previous research how much of this effect is driven by the roles themselves, or by aspects of the executive who fulfills the role. In this regard, more research is needed to better understand how specific roles shape top executives' value to the firm and their influence on firm-level outcomes.

To address this research question, we draw on insights from the executive mobility literature and apply them to the upper echelons perspective. The executive mobility literature serves as an appropriate guide for several reasons. Foremost, mobility research aligns with the upper echelon perspective's focus on top executives. Research on mobility suggests that, due to their accumulated experience and position in the organizational hierarchy, top executives possess critical knowledge about a firm, including the "blueprint" of the firm's routines and structures that make a firm competitive (Phillips, 2002). As a result, the negative consequences of employee departure are more pronounced when a firm loses a high-ranking executive or an executive with a deep wealth of experience than when a less experienced employee leaves (Wezel, Cattani, and Pennings, 2006).

Executive mobility research also provides insight about the competitive implications of interfirm mobility (Sorensen, 1999). Specifically, it provides theoretical explanations for why personnel moves between rival firms can be problematic for the departed firm; namely, that a top executive's departure adversely affects the focal firm due to the transfer of critical human and social capital resources to competitors (Somaya, Williamson, and Lorinkova, 2008; Wezel *et al.*, 2006). Firms actively attempt to prevent interfirm mobility of knowledgeable employees through contractual mechanisms such as non-compete clauses (Marx, 2011), which suggests that firms also appreciate the value in retaining top executives. To the extent that interfirm executive mobility has been shown to alter the comparative performance of both firms that gain and lose important individual employees (Chatterji, 2009), the executive mobility paradigm serves as a useful tool for better understanding the role that top executives play in conferring competitive advantage.

The present study aims to extend and contribute to research on upper echelons by shifting the focus from the characteristics of top executives currently employed at the firm to the characteristics of top executives that the firm has recently lost and the subsequent consequences of their departure. We suggest that top executives serving in functional roles providing access to a wide breadth of internal coordinating routines are more difficult to replace when they depart and thus are more critical to a firm's success than are executives without this functional experience. In doing so, we highlight the role that functional experience plays in determining the competitive implications of an executive mobility event. We test our hypotheses using a unique longitudinal data set that tracks the movement of all top advertising executives in the New York City area over a 72-year period. The professional service context of these data is ideal for our inquiry because competitive advantage in these industries relies significantly on a firm's ability to manage knowledge-based capabilities closely linked to its human capital (Teece, 2003).

## THEORY AND HYPOTHESES

Top executives affect the performance of a firm through their actions and behavior. While there is no consensus definition within the upper echelons literature, we broadly define top executives as the dominant coalition of individuals who assume responsibility for the overall organization (Hambrick and Mason, 1984). Top executives formulate the strategic direction and structure of the firm, as well as convey organizational values to, and motivation for, employees (Gioia and Thomas, 1996). While the accumulated knowledge of top executives can provide a firm with a competitive advantage, the potential for loss of these executives and the accompanying loss of critically important human capital embedded within them is a continual threat to firm viability (Coff, 1997). This is particularly true when a firm's primary tasks are difficult to monitor and product quality is challenging to assess (Nelson and Winter, 1982: 17), thus making knowledgeable employees the most critical resource within the firm (Felin and Hesterly, 2007). In professional service firms, for example, the level of human capital present in a firm's upper echelon of executives can significantly increase the ability of that firm to survive (Pennings, Lee, and van Witteloostuijn, 1998), to earn profits (Hitt *et al.*, 2001), and to retain clients (Seabright, Levinthal, and Fichman, 1992). The benefits of a knowledgeable group of top executives, however,



DOI: 10.1002/smj

are counteracted by the potential deleterious effects to the firm should they leave (Coff, 1997).

Departing executives take with them important knowledge that may not exist elsewhere within the firm, making it difficult for their expertise to be replaced. This negative effect is compounded by the fact that many departing top executives join rival firms, for a myriad of reasons. In some cases, top executives move to a more prominent firm, with increased salary and benefits. Top executives also move to less established firms, such as new ventures, where they have more control over the strategic direction of the firm (Campbell *et al.*, 2012b; Phillips, 2002). In our theorizing, we make no *a priori* assumptions about the motivations for top executive departure, but instead focus our investigation on the consequences of top executive mobility, with a particular emphasis on the nature of knowledge and expertise that departing executives take with them to rival firms.

Mobility has detrimental consequences for the departed firm when departed employees use their experiences to replicate advantageous routines and processes within rival firms (Aime *et al.*, 2010). This is a particularly pertinent issue for the mobility of upper echelon executives because their knowledge is largely based on higher-order routines, such as those that govern the process of resource allocation and strategic alignment. The replication of high-order routines among competing firms makes them more strategically similar and thus intensifies the interfirm rivalry (Wezel *et al.*, 2006). Additionally, departing top executives take with them considerable levels of social capital, which competing firms can leverage to poach business from the firm that was departed (Somaya *et al.*, 2008).

For these reasons, we suggest that the departure of a top executive to a competing firm will negatively affect the viability of the departed firm. Our hypothesis runs in contrast to some of the previous upper echelons research, which has found that replacing a firm's top executives (top executive succession) has a positive effect on the performance of the firm (Tushman and Rosenkopf, 1996; Virany, Tushman, and Romanelli, 1992). This is primarily due to our explicit focus on top executives who depart and join a competing firm. A prominent example of this is Marissa Meyer, who was one of Google's original employees and held many top executive positions before becoming CEO of Yahoo. We designed our study this way for two reasons. First, a high-performing executive is more likely to be hired away by another firm in the industry, which means our analysis serves as a more direct proxy of the effects of advantageous human capital that can be ported between firms in the same industry. Second, the negative effects of executive mobility are the result of the loss of human capital by the executives departing from a firm in combination with the improved ability of rival firms to mimic the routines of the firm the executives departed. Thus, our design isolates the effects that interfirm mobility has on routine-based competitive advantage between the firms (Aime *et al.*, 2010). When highly successful executives leave for a rival firm, they can create a higher level of competition, making it more likely their previous firm will fail. Stated formally,

*Hypothesis 1a: Firms that lose a top executive to a competing firm will experience higher failure rates than firms that retain their top executives.*

The effects of employee mobility between competitors is also bidirectional, thus firms gaining a top executive from a competitor should experience improved competitive viability. Recruited top executives bring with them knowledge that their new employers can utilize to improve firm performance through strategic change (Boeker, 1997; Kraatz and Moore, 2002) or new product introduction (Rao and Drazin, 2002). Top executives are also more likely to transfer their external network relationships to their new employers, which can aid in securing increased business from transaction partners (Somaya *et al.*, 2008). These benefits may be diluted by the adjustment issues that new executives may face when attempting to exercise their skills in a new organizational context (Groysberg, Lee, and Nanda, 2008). Thus, while recruiting top executives is not a guaranteed strategy for success and must be done in moderation, the overall benefits of adding top executives from rival firms should be greater than the potential negative issues. Thus, we hypothesize,

*Hypothesis 1b: Firms that gain a top executive from a competing firm will experience lower failure rates than firms that do not gain top executives from competitors.*

### Functional position of departing executive

The behavior of top executives is shaped in several ways by their functional background (Waller,



DOI: 10.1002/smj

Huber, and Glick, 1995). While executives may initially seek out specific functional positions based on their personal preferences, the prolonged exposure to norms and routines connected to a function leads them to become deeply socialized within a particular functional domain. Executive behavior is also affected by functional imprinting, whereby the knowledge learned in their primary functional area affects their perceptions of current and future problems and solutions (Waller *et al.*, 1995). Previous work experience shapes the information that executives are more or less likely to attend to, which in turn shapes the nature of problems they perceive in a firm's environment (Beyer *et al.*, 1997).

It remains an open question, however, which functional roles are most critical for a firm's performance. One of the primary roles of top executives is to mediate between the efficiency demands of the firm's technical environment and the flexibility demands of the firm's external environment. Firms whose top managers lack expertise in these domains are more likely to struggle to remain competitively viable (Hambrick and D'Aveni, 1992). The successful balance of these two disparate activities requires organizations to be effectively structured into functional domains to simultaneously coordinate a firm's internal routines and negotiate external contingencies. The functional design of a firm has a direct effect on the nature of how knowledge is stored and shared and how individuals come to "know" their jobs (Grant, 1996). Each organizational function over time develops its own set of techniques and processes, the outcome of evolutionary processes toward higher production efficiency (Nelson and Winter, 1982). As a result, no single individual within the firm can fully know how the organization operates. Instead, what is more important for the firm's performance is that individuals have mutually attuned expectations across functions so each person competently understands "which actions go with which incoming signals" (Winter, 2006: 134). Some functional roles require an executive to respond to the actions of many other functional roles; other functional roles have more narrow coordination requirements. As a result, some individuals know more than others about what behaviors are required of other functional areas to keep the organization running smoothly.

The extent to which an executive's functional work is focused on the internal or external firm environment dictates which aspects of the firm's environment will receive priority (Mintzberg, 1973; Sutcliffe, 1994), accounts for the variation in how they spend their time working (Stewart, 1988), and molds the nature of knowledge which that executive accumulates (Karim and Williams, 2012). Executives focused on coordinating a firm's internal routines tend to work in production and administrative functional domains, which are responsible for the delivery of products and services and the determination of roles and relationships within the firm, respectively (Hambrick, 1981). Executives in these functions regulate systematic processes at the firm level with an overarching goal of maximizing efficiency. Production executives often spend a significant amount of time and energy being the firm's "trouble shooters," handling disturbances within the firm and resolving issues (Mintzberg, 1973). Administrative executives, who manage specialty staff within a firm, such as accountants and human resource professionals, also spend a significant amount of time processing and distributing information throughout the firm. They serve as the "nerve centers" for specialized information and thus communicate most frequently with peer executives in lateral positions (Mintzberg, 1973).

In contrast, executives focused on negotiating the firm's external contingencies tend to work in functional domains that are externally focused, such as marketing and sales, where the primary responsibility is to manage the firm's relationships with critical stakeholders and monitor the external task environment, such as industry trends and competitor moves (Morgan, Vorhies, and Mason, 2009). Executives in these functions spend most of their time preoccupied with interpersonal relationships, either within their own functional team or between their team and external stakeholders, operating within a small subset of routines related directly to their own area of expertise (Mintzberg, 1973). Rather than coordinating their work with the diverse functional roles operating within the boundaries of the firm, these executives rely more heavily on their own personal relational and social capital to resolve unique and unpredictable issues that arise outside the boundaries of the firm.

Although all top executive roles are important, much of the mobility research either does not differentiate between different forms of functional expertise (Phillips, 2002) or focuses solely on externally focused top executives (Broschak, 2004), reflecting the biases that exist within many industries. Externally focused top executives are perceived to be more valuable to their respective firms than



DOI: 10.1002/smj

internally focused executives for a variety of reasons. The actions of externally focused executives are more visible to outside evaluators and stakeholders, draw significantly more media attention, and are more likely to get them labeled as a "star" within the organization (Hayward, Rindova, and Pollock, 2004). Externally focused executives also possess relationship-specific expertise related to clients that can negatively impact the amount of business a firm retains after their departure (Broschak, 2004; Seabright *et al.*, 1992). As a result, externally focused top executives are often more highly paid by firms and more highly sought after by competitors.

Despite the prior focus on external executives, an alternative argument can be made that top executives whose "action sphere" resides primarily within the technical core of the firm may be more valuable to their firms than externally focused executives due to the firm-specific nature of their expertise. While internally focused top executives receive far fewer opportunities for external visibility than their outward-facing counterparts and less credit for their firm's successes (Thompson, 1967: 108–109), their accumulated skills for coordinating the internal operations are vital for the firm's survival. An efficiently managed technical core is necessary for a firm to deliver products and services to their clients and customers. As such, research on top executives suggest that roles which focus on internal firm issues such as administration, information technology, and operations are important components of the top management team (Menz, 2012).

Moreover, top executives serving in internally focused functional areas possess skills and knowledge that are more firm-specific than the knowledge of externally focused top executives. The knowledge accrued by an executive is shaped by the organizational structures that connect and integrate that executive to other organizational members (Karim and Williams, 2012). Top executives with an internal focus spend more time than their externally facing counterparts managing and coordinating intraorganizational activities between disparate parts of the firm (Mintzberg, 1973). Furthermore, top executives have a more positive impact on firm performance when they operate as integrators and "occupy a highly central position in their firm's internal network" (Grigoriou and Rothaermel, 2014: 591). This effect exists because executives coordinating with individuals from various parts of the firm develop a better sense of "who knows what" within the firm and develop the capacity to identify knowledge recombinations that can solve critical organizational challenges. Such knowledge is both socially complex and casually ambiguous, which makes it a potential source of competitive advantage but unlikely to be reproducible in a different firm. Thus, while top executives with an external focus have portable knowledge that is valuable to rival firms, the departure of top executives with internal coordinative focus may have a larger negative effect on firm viability because they depart with firm-specific knowledge that is more difficult to replace. Stated formally,

> *Hypothesis 2: Firms that lose top executives to a competing firm will experience higher failure rates if those executives are in functional roles that govern internal firm routines than if the executives are in functional roles that govern external firm exchanges.*

## METHODS

### Industry context and data description

In this study, we examine the effect of functional background and interfirm executive mobility on firm survival within the advertising industry. We collected data on all advertising firms operating in New York City from 1924 to 1996 from *The Agency List of the Standard Advertising Register* ("*The Red Books*"), an annual listing of all the major advertising agencies in the United States. Throughout this time period, New York City was the center of the advertising industry in the United States. For each agency, *The Red Books* list the agency name, agency address, names, and titles of their top executives, branch locations (and branch personnel), industry affiliations, and the national (largest) accounts of that agency. We define top executives to be all of the individuals listed in the directory. This is a departure from the normative definition of a firm's top managers as all executives with titles above a specific rank (e.g., vice president) or that serve on the board of directors (Cannella and Hambrick, 1993). We chose this definition because our sample consists of many small and medium-sized firms, where the top managers do not have the same titles but remain equally central in the strategic behavior and actions of the firm.



DOI: 10.1002/smj

Indeed, the focus on large firms is a noted gap in the upper echelons literature that this study addresses (Lubatkin *et al.*, 2006).

For optimal data collection efficiency, *The Red Books* were coded in multiyear intervals ranging from three to five years, depending on availability. Photographic copies were made of every page in each directory. The text was digitized and coded both manually and using text-recognition software. For the purposes of our analyses, the individual level data was aggregated to the firm level. The final database comprised of 111,899 executives working in 3,288 advertising agencies over 19 observation periods and 8,537 firm-year observations.

### Dependent variable

Our dependent variable is *organizational failure*, coded as the year in which a firm was no longer listed in *The Red Books*. An agency was considered as surviving if the agency name remained the same or changed only slightly (e.g., J. Walter Thompson recently changed to JWT) or if the name changed to reflect a newly named partner (e.g., Barton & Durstine Co. became Barton, Durstine & Osborn when Alex Osborn joined the firm). In situations where names were similar, the agency's address was used to verify that the same firm was being listed. If the name and address were different, then the firm was coded as a new entry. To protect against spurious deletions, we considered agencies as failed if they remained unlisted for two consecutive observation periods.

As in previous studies on mobility in professional service industries (Phillips, 2002; Wezel *et al.*, 2006), lack of data meant we could not differentiate between specific organizational failure types, such as deliberate dissolutions and bankruptcies, or mergers and acquisitions. Although advertising trade publications, such as *Printer's Ink*, record the merger activity for large publicly owned agencies (Simon, Mokhtari, and Simon, 1996), the majority of firms in our sample are smaller private agencies, whose activities do not normally draw press coverage. To control for potential bias in the data from merger activity, we considered as a merger/acquisition all departure events in which over 75 percent of the listed employees in one agency moved to another agency and the departed firm was coded as censored rather than failed.

### Independent variables

A dummy variable, *top executive departure flag*, was created to indicate whether a firm lost an executive to another firm in the sample. Executive departure, however, is frequently not a singular event. The departure of one top executive, particularly the CEO, often occurs along with the departure of other senior executives, either because of involuntary replacement by the new CEO, ordinary retirement, or the pursuit of alternate career opportunities (Shen and Cannella, 2002). Moreover, senior executives depart en masse when they believe their shared strategic vision is no longer viable at the firm (Hambrick and Cannella, 1993). Thus, we also include a measure of the *total top executive exits to competing firms* to measure the quantity of executives that a firm loses to its competitors. Similarly, we created two variables for top executive entry from competitors: the dummy variable *top executive entry flag* and the count variable *total top executive entry from competing firms*. If a firm was involved in a departure or entry event, it was flagged as such for that firm year.

Using qualitative data from interviews with current and former advertising executives as well as knowledge gained from reading the trade literature, we coded the departure of each advertising agency executive as falling into five primary functional types: *Creative Top Executive Departure*, *Account Top Executive Departure*, *Media Top Executive Departure*, *Administrative Top Executive Departure*, and *Production Top Executive Departure*. We also created two separate categories as control variables; one for the agency's *Chief Executive Departure*, and another, *Miscellaneous & Uncategorized Top Executive Departure*, for generically titled executives for whom no clear identifying information related to a specific agency function is available and for those top executives without a listed position.

Two potential issues with the functional executive coding merit further discussion. The first regards potential variation in functional roles across a firm in any given year. Despite the perceived idiosyncratic nature of advertising, the structural roles within advertising firms are consistent throughout the industry. Published textbooks written by former and current advertising executives suggest that, while agencies have unique identities and cultures, they are remarkably similar in their "organization, planning procedures, and



DOI: 10.1002/smj

professional orientations" (Jones, 1999: 10). That this perception is widely held explains in part the high frequency of mobility within the industry. The second issue regards the potential shifts in organizational functions over time. Throughout our observation period, the nature of advertising underwent several massive changes. After examining various advertising textbooks and manuals from the beginning of our observation period in the 1920s (e.g., Keeler and Haase, 1927) through to the end of our observation in the 1990s (e.g., Jones, 1999), we found that a majority of the changes within the industry were technical in nature and did not substantially alter the distribution of functions within the agency. The media-buying function within an agency underwent the most radical technical change during the observation period with the advent of both radio and television as advertising media (Schmalensee, Silk, and Bojanek, 1983). And while media executives have gone by various names over the years, whether called space buyers in the print era or time buyers in the radio era, "the function of the department has remained largely the same—procuring space or time from those who own it for those who wish to be displayed in or on it" (Jones, 1999: 102).

For the purpose of testing our hypotheses, we grouped the functional variables into two categories. The departures of creative, account, and media top executives were included in the category of external exchange role executive departure. The three positions were grouped into this category because their functional responsibilities require the most regular interactions with clients and the top executives are primarily tasked with managing the client exchange relationship (Broschak, 2004). Conversely, the departures of production and administrative executives were categorized as internal routine role executive departure. The administrative top executives oversee the everyday operations of the agency, including treasury, human resources, facilities maintenance, and payroll. Production executives work to create the tangible advertisements, which can range from the creation of proofs for a magazine ad to the creation of a commercial for television ads. These two executive roles were grouped together because the primary task of their positions is to manage firm operations that we classify as internal since they are not centered on direct contact with the external client. Table 1 lists the qualitative descriptions of each executive category as well as the focus of that functional position, that is, either external firm exchanges or internal firm routines.

All of the independent variables are time variant within the data set. Thus, for each observation period, we calculated all of the variables on the basis of the number of executives who were at the firm at that time. For example, if an agency loses their Head of Accounts in 1944, the *Account top executive departure* variable is set equal to 1 for that year but 0 for the next year in the sample. This allows us to record all departures of the same executive position even if they occur multiple times throughout the time period. The firm and industry-level control variables listed below were calculated in the same fashion and also vary with time.

### Control variables

Research on human capital has suggested that high rates of general turnover negatively affect a firm's performance (Hatch and Dyer, 2004), thus the number of *total top executive exits* from a firm has been included as a control variable. This allows us to isolate the effects of interfirm executive mobility from generalized turnover. Previous mobility research finds that executive exit is more detrimental to a firm that loses a more experienced executive than to one losing a junior executive (Pennings *et al.*, 1998; Wezel *et al.*, 2006). To take this into account, we calculated a running total of the number of years that each executive cumulatively worked in the New York City advertising industry and included that measure in our analysis as the *experience of departing top executives*. In addition, our analysis includes a measure for the *firm tenure of departing top executives*, calculated as the total number of years each departing executive has spent at the firm they are leaving. Both measures were calculated by subtracting the current observation year from either the first year that the executive was first listed in the directory, or the first year that the executive was listed in the directory with the same firm. For mobility events involving multiple executives, this variable is the aggregate total experience of all the executives.

Advertising executives can also hold two or more functional positions simultaneously. These individuals are counted only once, but because they represent two distinct types of functional knowledge, each of their positions is coded separately. For example, consider a departure event where two executives leave one agency to join another, one of them working as the head of accounts (single



DOI: 10.1002/smj

Table 1. Advertising agency executive functional categories

| Functional category | Representative titles | Functional description | Focus of functional position | Frequency |
|---|---|---|---|---|
| Creative executives | Art director<br>Fashion director<br>Copywriter chief<br>Creative director | Manages the advertising campaign for clients. Primarily tasked with devising text, visuals, and concepts for clients' advertisements. | External exchange role | 24,156 (22%) |
| Account executives | Account manager<br>Client manager | Tasked with acquiring new clients and managing current client relationships.<br>Works with clients to devise advertising strategy and communicates clients' needs to agency staff. | External exchange role | 20,622 (13%) |
| Media executives | Vice president of media<br>Vice president of tv/radio | Tasked with managing the advertisement placement strategy. Advises clients as to which advertising media are most appropriate for their marketing strategy based on cost, time schedules, ad designs, and purchase options and formulates a comprehensive media purchase plan. | External exchange role | 12,587 (11%) |
| Administrative executives | Research director<br>Treasurer/comptroller<br>Office manager<br>Marketing director | Manage the internal processes within the agency such as bookkeeping, treasury, staffing, in-house research, and general administrative tasks. | Internal routines role | 22,880 (13%) |
| Production executives | TV production manager<br>Radio production manager<br>Print production manager<br>Traffic manager | Creates tangible advertisement (i.e. print ads, radio, and tv commercials) and delivers it to media firms. | Internal routines role | 7,746 (7%) |
| Chief executive | Partner/principal/proprietor<br>Chairman/CEO<br>President<br>Owner | Oversees entire operation of agency, manages client relationships, handles personnel decisions, formulates the overall strategy of the agency, and represents the agency to critical stakeholders. | External exchange and internal routines role | 13,067 (12%) |
| Miscellaneous & uncategorized executives | Vice president<br>Manager/director | No information identifying functional area is listed. | N/A | 30,250 (28%) |

functional position) and the other working as both the head of copywriting and the office's managing director (dual functional position). The departure of the first executive is coded as the loss of an account executive (Account top executive departure = 1), the departure of the second executive is counted as the loss of a creative executive (Creative top executive departure = 1) and an administrative executive (Administrative top executive departure = 1). To control for the movement of multiple-position executives, we created the variable *departing executive-to-position ratio*, calculated as a ratio of the number of executives leaving a firm divided by the number of functional positions they hold. The higher the ratio, the fewer the multiple-position top executives involved in the mobility event; the lower the number, the more the multiple-position top executives involved.

Because upper echelon research suggests that a firm's viability is influenced by the functional heterogeneity of the current managing TMT (Hambrick, Cho, and Chen, 1996; Hambrick and D'Aveni, 1992; Menz, 2012), we control for the *functional heterogeneity of existing top executives* by calculating the Index of Quality Variation (Agresti and Agresti, 1978) of the top executives that exist at the agency in each observed year. We first calculated the Blau (1977) index for functional diversity within the top executive group as $1 - \sum P_k^2$, where $P$ is the proportion of executives from the group in a $k$th functional category. The Blau index measure was then divided by its theoretical maximum $(K - 1)/K$, where $K$ represents the maximum number of functional executive categories (i.e., 7).

Over time, top management teams may develop a collective knowledge that would make them a more effective unit (Wegner, 1986), particularly when each member has different facets of functional knowledge (Hayes, Oyer, and Schaefer, 2006). Thus, a more functionally diverse departing group of executives is likely to take with them a more complex and comprehensive understanding of the firm's processes and routines than a homogenous group of executives. To control for this factor, we include a measure of the *functional heterogeneity of departing top executives,* calculated as the Index of Quality Variation (IQV) of the departing top executive group.

Large, complex organizations require significant coordination efforts, which make them more likely to exhibit more functional divisions within the organization and more likely to experience top executive turnover (Fee and Hadlock, 2004). As a proxy for *firm size*, we control for the log of the number of executives listed for each agency. Organizations are also more likely to fail when they are young. To control for this "liability of newness" (Freeman, Carroll, and Hannan, 1983), we calculated *firm age* by subtracting from the observation's current year the first year in which the agency was listed in *The Red Books*.

Industry size and growth shapes the supply and demand side constraints on human capital specificity, which in turn influences the frequency of personnel exchange between firms (Campbell, Coff, and Kryscynski, 2012a). To control for the risk of failure caused by competition, we included a measure for the *number of firms in the market*, calculated as the total number of advertising agencies in New York City in the year observed. Everything else being equal, it is easier for firms in a given industry to perform well during periods of economic growth, when the carrying capacity of the environment is high, than in periods of economic decline (Audretsch and Mahmood, 1994). To control for this alternative causal factor of firm failure, we included a measure for *advertising industry growth rate,* which was calculated as the total volume of U.S. advertising expenditures between years, as reported by the U.S. Census Bureau.

Following historical studies of the advertising industry (Fox, 1984; Sivulka, 1998), we included four dummy variables to control for qualitative changes in the advertising industry throughout the 20th century. These were the *Early Advertising Era* (1924–1944), covering the golden era of radio and the depression era of advertising; the *Post-WWII Era* (1944–1970), covering an era of tremendous industry growth and the emergence and growth of publicly owned multinational holding companies (Von Nordenflycht, 2007); the *Recession Era* (1970–1980), spanning the period when the industry contracted because of the drop in overall economic production; and the *Contemporary Era* (1980–1996), marking the period of unprecedented merger and acquisition activity, in which 75 percent of the largest worldwide agencies were acquired or merged (Sivulka, 1998).

Firms can attenuate the disruptive effect of executive loss by having larger stocks of human capital available within the firm; thus, when an individual leaves, several others already at the firm can become a replacement (Shaw, Park, and Kim, 2013). To



DOI: 10.1002/smj

control for this potential effect on our results, we added two measures that represent the number of external-facing top executives (*total top executives with external exchange roles*) and internal-facing executives (*total top executives with internal routine roles*) that work at an agency in each observation year.

### Method of estimation

The effect of mobility events on failure rates of firms was estimated by using discrete-time hazard analysis, which explicitly treats time within distinct, divided units. This model was selected over continuous hazard models (e.g., the Cox model) because the observations in the data set are taken in multiple-year intervals and result in a large number of tied failures. Although continuous hazard models can be adjusted for tied failures, statistically there is no "natural way" to handle them (Ryu, 1994). In addition, the wider the length of the interval between observations, the more problematic it becomes to utilize continuous-time models for survival analysis. Instead, we employed a discrete time complementary log-log model with panel-specific random effects to correct for the longitudinal nature of our data set. The hazard rate is calculated in the complementary log-log mathematical form as follows: $h(t) = 1 - \exp[-\exp(X_{ij}\beta + \gamma_j)]$, where $X_{ij}\beta$ is the set of independent variables and $\gamma_j$ represents the measure of error. The complementary log-log model is similar to the continuous-time Cox model, in that the independent variables are assumed to have proportional effects on the hazard rate. Unlike the Cox model, however, the complementary log-log model treats survival indicators as binary variables and uses logistic probabilities to estimate coefficients. To address potential violations of the proportional hazard assumption, we draw from previous mobility research (Pennings *et al.*, 1998; Wezel *et al.*, 2006) and include data collection time intervals to the model. The average span for data collection is four years, but the range is between three and five years. Thus, the time intervals were calculated as three dummy variables set to the length of time between observation periods; *Time gap three years*, *Time gap four years*, and *Time gap five years*. The inclusion of the time interval variables permits the hazard rate to vary between observation periods as long as proportionality assumption within each observation is satisfied. Additionally, our model controls the unobserved heterogeneity between individual firms with a normally distributed random error variable (Jenkins, 1997). Left unchecked, unobserved heterogeneity can attenuate the proportionate effect of the independent variables on the hazard rate, leading to regression coefficients that are incorrectly estimated (Lancaster, 1990).

The risk set for our analysis comprises all advertising agencies in the New York City area from 1924 to 1996. The firms from which executives depart are set to be under risk after a departure event takes place and are considered failed upon delisting or censored if they are still in existence in 1996. The data for these firms are considered partially left-censored, or left-truncated, because they come under observation after having been at risk for an unknown length of time. Including left-truncated subjects in the data set can overrepresent a cohort's low-risk cases because the high-risk cases are likely to have failed before the observation period began (Guo, 1993). To eliminate this selection bias, we removed all left-truncated observations from the sample (Allison, 1984).

## RESULTS

Table 2 presents the descriptive statistics and correlations for the variables for the entire sample of 3,288 firms. The advertising industry in New York City comprised fewer than 200 firms in 1924, rising steadily to over 600 firms in 1968, before contracting to fewer than 400 firms in 1996. The data suggest that the amount of executive mobility within the advertising industry is considerable: a firm loses an executive in 43 percent of the firm's years we observed.

The results of the hazard analyses are listed in Table 3. Coefficients are listed as calculated marginal effects, the likelihood of a firm's failure attributable to that variable while holding all other variables in the model at their mean, to allow for a more straightforward interpretation of the results. The results for the control variables in the baseline model are generally in the expected directions. Larger firms are less likely to fail, while more local competition (density) increases the likelihood of failure. Firms that lose more experienced executives to competing firms have a higher risk of failure, whereas the effect of losing a long-tenured executive is the opposite. The effect of total top executive



DOI: 10.1002/smj

Table 2. Descriptive statistics for all advertising agencies, 1924–1996

| | Mean | *S.D.* | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Firm failure | 0.28 | 0.45 | | | | | | | | | | | | | | |
| 2. Total top executive exits | 8.95 | 25.32 | 0.00034 | | | | | | | | | | | | | |
| 3. Experience of departing top executives (logged value) | 8.01 | 24.86 | 0.14169 | 0.53113 | | | | | | | | | | | | |
| 4. Firm tenure of departing top executives (logged value) | 3.26 | 13.96 | 0.09623 | 0.46082 | 0.84784 | | | | | | | | | | | |
| 5. Departing executive-to-position ratio | 0.14 | 0.21 | 0.04358 | 0.00668 | 0.28918 | 0.21775 | | | | | | | | | | |
| 6. Functional heterogeneity of existing top executives | 0.82 | 0.2 | −0.02705 | 0.09616 | 0.0885 | 0.06364 | −0.0253 | | | | | | | | | |
| 7. Functional heterogeneity of departing top executives | 0.69 | 0.3 | 0.28457 | 0.17719 | 0.18215 | 0.13257 | 0.05774 | 0.50973 | | | | | | | | |
| 8. Firm size (logged value) | 1.88 | 0.99 | −0.08859 | 0.61695 | 0.42366 | 0.33295 | 0.04812 | 0.4452 | 0.33999 | | | | | | | |
| 9. Number of firms in market (logged value) | 6.23 | 0.19 | 0.05498 | 0.0108 | 0.11251 | 0.08333 | 0.09717 | 0.06897 | −0.00584 | 0.09107 | | | | | | |
| 10. Advertising industry growth rate | 0.08 | 0.07 | −0.02576 | 0.0296 | 0.05263 | 0.04048 | −0.01408 | 0.08335 | 0.02594 | 0.09721 | 0.35501 | | | | | |
| 11. Firm age | 8.41 | 10.88 | −0.07829 | 0.27543 | 0.19768 | 0.26861 | −0.03796 | 0.0287 | 0.01643 | 0.2489 | 0.15261 | 0.11193 | | | | |
| 12. Post-WWII era (1944–1970) | 0.4 | 0.49 | −0.02914 | −0.05677 | 0.00929 | 0.01995 | 0.14877 | −0.02405 | −0.05358 | −0.01628 | 0.54898 | 0.13909 | 0.01889 | | | |
| 13. Recession era (1970–1980) | 0.14 | 0.35 | 0.01771 | 0.00419 | 0.02868 | 0.01042 | 0.00506 | 0.03229 | −0.01613 | 0.02444 | 0.29898 | 0.0556 | 0.03506 | −0.33381 | | |
| 14. Contemporary era (1980–1996) | 0.29 | 0.45 | 0.05097 | 0.1243 | 0.04522 | 0.02552 | −0.19845 | 0.07987 | 0.13093 | 0.11138 | −0.19039 | 0.17292 | 0.12852 | −0.52496 | −0.25876 | |
| 15. Total top executives with external firm exchange roles | 1.51 | 0.92 | −0.08947 | 0.5637 | 0.36783 | 0.28959 | 0.02343 | 0.49796 | 0.3715 | 0.8586 | 0.07004 | 0.11393 | 0.19616 | −0.00771 | 0.008 | 0.1019 |
| 16. Total top executives with internal firm routine roles | 1.25 | 0.65 | −0.08027 | 0.61856 | 0.40106 | 0.3193 | 0.00688 | 0.49449 | 0.3577 | 0.82514 | 0.05795 | 0.4782 | 0.2417 | −0.06116 | 0.04226 | 0.11754 |
| 17. Time gap three years | 0.2 | 0.4 | 0.14257 | 0.04656 | 0.06189 | 0.03785 | 0.00172 | 0.04381 | *O*.0662 | 0.05331 | 0.28324 | −0.0817 | 0.07948 | −0.03832 | 0.28245 | 0.00938 |
| 18. Time gap four years | 0.56 | 0.5 | −0.14732 | −0.04051 | −0.0632 | −0.03502 | 0.00923 | −0.02312 | −0.04209 | −0.02854 | −0.09667 | 0.41576 | −0.06058 | 0.13425 | −0.03486 | −0.22339 |
| 19. Time gap five years | 0.22 | 0.42 | 0.0304 | 0.00946 | 0.02326 | 0.01102 | −0.01246 | 0.0044 | −0.01068 | 0.0044 | −0.04876 | −0.37973 | 0.02424 | −0.09247 | −0.21686 | 0.28154 |
| 20. Top executive departure flag | 0.42 | 0.49 | 0.197 | 0.20486 | 0.37629 | 0.27279 | 0.68205 | 0.18192 | 0.31025 | 0.41724 | 0.1326 | 0.01702 | 0.00507 | 0.12694 | 0.00989 | −0.12758 |
| 21. Total top executive exits to competing firms | 1.49 | 4.25 | 0.09604 | 0.64216 | 0.82764 | 0.67428 | 0.30157 | 0.08512 | 0.17534 | 0.51374 | 0.10418 | 0.03913 | 0.17489 | 0.0328 | 0.03148 | −0.01075 |
| 22. Top executive entry flag | 0.45 | 0.5 | −0.03128 | 0.23347 | 0.24185 | 0.11105 | 0.13581 | 0.17433 | 0.17908 | 0.43731 | 0.08781 | 0.07398 | −0.06941 | −0.03726 | 0.06345 | 0.09063 |
| 23. Total top executive entry from competing firms | 1.63 | 4.34 | −0.06273 | 0.63031 | 0.46858 | 0.23756 | 0.0541 | 0.08849 | 0.13146 | 0.51728 | 0.04469 | 0.04111 | 0.0842 | −0.06009 | 0.03811 | 0.10534 |
| 24. Miscellaneous & uncategorized top executive departure | 2.2 | 8.54 | −0.02513 | 0.8739 | 0.47028 | 0.41862 | 0.00811 | 0.01155 | 0.09166 | 0.5502 | 0.00071 | 0.01843 | 0.29878 | −0.05437 | 0.00023 | 0.10933 |
| 25. Account top executive departure | 2.15 | 7.49 | −0.0254 | 0.83993 | 0.45272 | 0.37625 | 0.00677 | 0.09978 | 0.14703 | 0.52807 | 0.02737 | 0.0285 | 0.19189 | −0.02257 | 0.01263 | 0.06211 |
| 26. Creative top executive departure | 1.77 | 5.43 | 0.00924 | 0.89382 | 0.40941 | 0.36115 | −0.00262 | 0.11611 | 0.1776 | 0.50164 | −0.00609 | 0.03115 | 0.20452 | −0.06341 | −0.00296 | 0.13799 |
| 27. Media top executive departure | 1.04 | 2.89 | 0.02002 | 0.82886 | 0.50916 | 0.43929 | 0.01337 | 0.15912 | 0.22558 | 0.54767 | 0.03586 | 0.03684 | 0.20389 | −0.02149 | 0.00321 | 0.07417 |
| 28. Administrative top executive departure | 1.59 | 4.18 | 0.08291 | 0.891 | 0.44795 | 0.38857 | −0.01128 | 0.11175 | 0.22392 | 0.51386 | −0.0293 | 0.0102 | 0.24535 | −0.08302 | −0.00743 | 0.15876 |




DOI: 10.1002/smj

Table 2. Continued

| | Mean | S.D. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 29. Production top executive departure | 0.66 | 1.59 | 0.03506 | 0.73763 | 0.48067 | 0.42162 | 0.02645 | 0.18694 | 0.24436 | 0.51487 | 0.02844 | 0.0272 | 0.14868 | −0.03375 | 0.00671 | 0.07658 |
| 30. Chief executive departure | 0.88 | 3.22 | 0.07718 | 0.74796 | 0.27148 | 0.24042 | −0.02466 | 0.06428 | 0.16285 | 0.37353 | −0.06577 | 0.00571 | 0.21584 | −0.09548 | −0.02777 | 0.1785 |

| | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Firm failure | | | | | | | | | | | | | | | |
| 2. Total top executive exits | | | | | | | | | | | | | | | |
| 3. Experience of departing top executives | | | | | | | | | | | | | | | |
| 4. Firm tenure of departing top executives (logged value) | | | | | | | | | | | | | | | |
| 5. Departing executive-to-position ratio | | | | | | | | | | | | | | | |
| 6. Functional heterogeneity of existing top executives | | | | | | | | | | | | | | | |
| 7. Functional heterogeneity of departing top executives | | | | | | | | | | | | | | | |
| 8. Firm size (logged value) | | | | | | | | | | | | | | | |
| 9. Number of firms in market (logged value) | | | | | | | | | | | | | | | |
| 10. Advertising industry growth rate | | | | | | | | | | | | | | | |
| 11. Firm age | | | | | | | | | | | | | | | |
| 12. Post-WWII era (1944–1970) | | | | | | | | | | | | | | | |
| 13. Recession era (1970–1980) | | | | | | | | | | | | | | | |
| 14. Contemporary era (1980–1996) | | | | | | | | | | | | | | | |
| 15. Total top executives with external firm exchange roles | | | | | | | | | | | | | | | |
| 16. Total top executives with internal firm routine roles | 0.67 | | | | | | | | | | | | | | |
| 17. Time gap three years | 0.037 | 0.05238 | | | | | | | | | | | | | |
| 18. Time gap four years | 0.007 | −0.0591 | −0.56876 | | | | | | | | | | | | |
| 19. Time gap five years | −0.022 | 0.03717 | −0.27044 | −0.60103 | | | | | | | | | | | |
| 20. Top executive departure flag | 0.361 | 0.32211 | 0.05051 | −0.0275 | −0.01104 | | | | | | | | | | |
| 21. Total top executive exits to competing firms | 0.457 | 0.48098 | 0.05053 | −0.04534 | 0.01011 | 0.41013 | | | | | | | | | |
| 22. Top executive entry flag | 0.373 | 0.34754 | 0.02123 | −0.04107 | 0.04554 | 0.30155 | 0.2438 | | | | | | | | |
| 23. Total top executive entry from competing firms | 0.457 | 0.49402 | 0.03817 | −0.04416 | 0.02365 | 0.22503 | 0.55625 | 0.39086 | | | | | | | |
| 24. Miscellaneous & uncategorized top executive departure | 0.405 | 0.53253 | 0.03811 | −0.04072 | 0.0156 | 0.1735 | 0.54794 | 0.20732 | 0.55994 | | | | | | |
| 25. Account top executive departure | 0.562 | 0.49968 | 0.03588 | −0.02618 | 0.00219 | 0.17984 | 0.62038 | 0.1938 | 0.54294 | 0.54254 | | | | | |
| 26. Creative top executive departure | 0.518 | 0.50232 | 0.03382 | −0.02628 | 0.0052 | 0.15386 | 0.46602 | 0.19337 | 0.51479 | 0.70513 | 0.72718 | | | | |
| 27. Media top executive departure | 0.572 | 0.56019 | 0.04291 | −0.02971 | −0.0013 | 0.22085 | 0.51394 | 0.20982 | 0.56044 | 0.60361 | 0.76967 | 0.70806 | | | |
| 28. Administrative top executive departure | 0.442 | 0.60502 | 0.04607 | −0.03681 | 0.0035 | 0.16164 | 0.49657 | 0.19573 | 0.53013 | 0.79403 | 0.62824 | 0.82353 | 0.68752 | | |
| 29. Production top executive departure | 0.516 | 0.57397 | 0.03364 | −0.03938 | 0.01802 | 0.23241 | 0.58316 | 0.19717 | 0.48811 | 0.50043 | 0.72591 | 0.63883 | 0.84254 | 0.57047 | |
| 30. Chief executive departure | 0.31 | 0.43031 | 0.02817 | −0.02132 | 0.00145 | 0.08393 | 0.27708 | 0.14049 | 0.39564 | 0.73829 | 0.43106 | 0.71368 | 0.47088 | 0.89175 | 0.33153 |




DOI: 10.1002/smj

Table 3. Marginal effects of top executive departure on advertising agency failure, 1924–1996

| Independent variables | Model 1 | Model 2 | Model 3 |
|---|---|---|---|
| Total top executive exits | 0.00499** | −0.000254 | 0.0635* |
| | (0.00252) | (0.00365) | (0.0363) |
| Experience of departing top executives | 0.0176*** | 0.0256*** | 0.0251*** |
| | (0.00217) | (0.00302) | (0.00327) |
| Firm tenure of departing top executives (logged value) | −0.0115*** | −0.0287*** | −0.0302*** |
| | (0.00307) | (0.00424) | (0.00452) |
| Departing executive-to-position ratio | −1.408*** | −4.477*** | −5.267*** |
| | (0.175) | (0.323) | (0.349) |
| Functional heterogeneity of existing top executives | −19.57*** | −19.39*** | −18.02*** |
| | (0.986) | (1.010) | (1.006) |
| Functional heterogeneity of departing top executives | 21.99*** | 21.60*** | 20.26*** |
| | (1.032) | (1.051) | (1.050) |
| Finn size (logged value) | −0.337*** | −0.364*** | −0.0823 |
| | (0.0821) | (0.0861) | (0.105) |
| Firm age | 0.00808** | 0.00674 | 0.00852** |
| | (0.00398) | (0.00410) | (0.00424) |
| Number of firms in market (logged value) | 4.138*** | 3.939*** | 4.118*** |
| | (0.414) | (0.427) | (0.441) |
| Advertising industry growth rate | 1.782** | 1.715** | 1.940*** |
| | (0.696) | (0.705) | (0.716) |
| Post-WWII era (1944–1970) | −1.938*** | −1.808*** | −1.952*** |
| | (0.194) | (0.199) | (0.206) |
| Recession era (1970–1980) | −1.667*** | −1.482*** | −1.653*** |
| | (0.200) | (0.206) | (0.214) |
| Contemporary era (1980–1996) | −1.444*** | −1.164*** | −1.359*** |
| | (0.150) | (0.154) | (0.160) |
| Total top executives with external firm exchange roles | −0.419*** | −0.509*** | −0.460*** |
| | (0.0733) | (0.0755) | (0.0991) |
| Total top executives with internal firm routine roles | −0.487*** | −0.583*** | −1.411*** |
| | (0.0970) | (0.100) | (0.148) |
| Time gap three years | −0.919*** | −0.913*** | −0.969*** |
| | (0.297) | (0.306) | (0.309) |
| Time gap four years | −1.712*** | −1.697*** | −1.777*** |
| | (0.277) | (0.287) | (0.291) |
| Time gap five years | −0.983*** | −0.996*** | −1.021*** |
| | (0.298) | (0.307) | (0.310) |
| Top executive departure flag | | 1.368*** | 1.478*** |
| | | (0.114) | (0.118) |
| Total top executive exits to competing firms | | 0.122*** | 0.201*** |
| | | (0.0155) | (0.0188) |
| Top executive entry flag | | −0.0717 | −0.0544 |
| | | (0.0776) | (0.0804) |
| Total top executive entry from competing firms | | −0.173*** | −0.188*** |
| | | (0.0203) | (0.0230) |
| Miscellaneous & uncategorized top executive departure | | | −0.176*** |
| | | | (0.0407) |
| Account top executive departure | | | −0.142*** |
| | | | (0.0408) |
| Creative top executive departure | | | −0.0866** |
| Media top executive departure | | | −0.122*** |
| | | | (0.0423) |
| Administrative top executive departure | | | 0.206*** |
| | | | (0.0473) |



DOI: 10.1002/smj

Table 3. Continued

| Independent variables | Model 1 | Model 2 | Model 3 |
|---|---|---|---|
| Production top executive departure | | | 0.129** |
| | | | (0.0622) |
| Chief executive departure | | | 0.0261 |
| | | | (0.0300) |
| Constant | −23.33*** | −21.96*** | −22.79*** |
| | (2.352) | (2.423) | (2.505) |
| Observations | 6803 | 6803 | 6803 |
| Number of firms | 2826 | 2826 | 2826 |
| Log Likelihood | −2516 | −2367 | −2279 |

***$p < 0.01$; **$p < 0.05$; *$p < 0.1$
Standard errors in parentheses.

exits on firm failure is positive though not robust across all models.

The baseline model (Model 1) suggests that the functional heterogeneity of departing executives has an especially large influence on firm outcomes. A unit change in departing functional heterogeneity increases the likelihood of a firm's failure by over 20-fold ($\beta = 21.99$, $p < 0.01$). A useful way of interpreting this effect is to compare the likelihood of failure for firms that lose the same number of top executives with differing functional heterogeneity. According to these results, a firm that loses five top executives, four from the one functional area and one in a different area (IQV = 0.40), is eight times more likely to fail than a firm that loses five top executives all within the same functional area (IQV = 0.00).

In Model 2 of Table 3, we find significant support for Hypothesis 1a regarding the overall effect of mobility events on failure of the firm that loses a top executive. The coefficient for the hazard rate of departure of any top executive from a firm is positive and significant ($\beta = 1.368$, $p < 0.01$) suggesting that firms with departing executives in our study are 136 percent more likely to fail than firms that are able to retain their top executives. Moreover, the coefficient of our departure count variable suggests that a firm's likelihood of failure increases by 12 percent for every top executive that departs ($\beta = 0.122$, $p < 0.01$). This finding supports results from previous mobility research about the particularly damaging effect of losing executives to competitors in comparison with losing them to clients or to firms in a different industry (Somaya *et al.*, 2008). Model 2 also provides support for Hypothesis 1b. Based on the coefficient for the top executive entry count variable, firms are 17 percent less likely to fail for each top executive that they add from a competing firm ($\beta = -0.173$, $p < 0.01$). The top executive entry flag is not significant, which suggests that the market benefit of adding top executives is driven by firms that bring in two or more executives from competitors.

The results of our analysis on the effect of executive functional background are listed in Model 3. The addition of variables for executive position significantly increased the fit of the model ($\chi^2(7) = 174.92, p > \chi^2 = 0.00$), which supports our claim that the functional background of the departing executives affects the viability of the firms they leave. We find strong support for Hypothesis 2, that the effects of the departure of top executives in functional roles related to internal firm routines are significantly greater than the departure of top executives whose roles are related to managing external firm exchanges. Firms that lost an administrative top executive were 20 percent more likely to fail ($\beta = 0.206, p < 0.01$) and firms that lost a production top executive were approximately 13 percent more likely to fail ($\beta = 0.129$, $p < 0.01$) than were firms that didn't lose executives in these functions. Consistent with our Hypothesis 2, the likelihood of failure is significantly *lower* for firms when they lose an externally focused top executive compared to an internally focused top executive. Those firms that lost an account top executive were 14 percent less likely to subsequently fail ($\beta = -0.142$, $p < 0.01$), while firms losing creative and media top executives were 9 percent ($\beta = -0.086$, $p < 0.05$) and 12 percent ($\beta = -0.122$, $p < 0.01$) less likely to fail, respectively.



DOI: 10.1002/smj

## Robustness checks

We conducted a number of checks to verify the robustness of our findings. First, we ran separate models substituting the total executive gain variable and the total executive loss variable with one "net loss" variable to investigate if results are driven by a firm's ability to replace departing top executives. The results of that analysis are consistent with the current results, suggesting that each individual departure and gain event has a separate and distinctive effect on firm viability. In addition, we tested for two potential endogeneity issues with regard to an executive's strategic decision to leave their firm. The first was the "sinking ship" issue. Although departures are often the result of disagreements among executives regarding the operations of a firm (Klepper and Thompson, 2010), executives might also leave a firm once it has become obvious that the agency will soon fail (Semadeni *et al.*, 2008). We performed this robustness check using two-stage regression analysis (Hamilton and Nickerson, 2003), a procedure with precedent in the executive mobility literature (Phillips, 2002). In the first stage, we generated a baseline model of agency failure by regressing our firm failure variable over the control variables. We utilized the coefficients from this model to calculate the predicted rate of failure for each firm in each observed year. We then included this calculated predicted rate of failure as a covariate in the model predicting the likelihood of an executive departure event. If executive departure is the result of pending firm failure, then the added covariate will be positive and significant in the second stage model. As indicated in the results in Table 4, however, the coefficient for the calculated rate of firm failure is not statistically significant, which suggests that the departure of executives from an agency is not endogenous to the failure of that firm.

The second endogeneity issue was a potential omitted variable bias, in that there is a variable (past firm performance) that could be affecting the dependent variable (firm failure) and explanatory variable (top executive departure) that is not included in our regression analysis. We conducted a two-stage regression analysis on a subsample of our data, using firm revenue as an instrumental variable to test whether a firm's previous performance was driving the departure of top executives. We collected revenue data from *The Red Books* as a proxy for performance. Revenue for advertising agencies was not made public until 1968, and then only for the largest agencies in the industry. As a result, our sample is reduced from 2,826 agencies to 1,373 and our total observations drops from 7,187 to 2,620. We then calculated the percentage change in revenue for each agency from the previous observation period (i.e., $\text{Revenue}_{t-1} - \text{Revenue}_{t}$) and utilized this variable and advertising industry growth rate as instrumental variables in the instrumental two-stage least squares estimation (2SLS) method to correct for endogeneity (Bascle, 2008). Advertising growth rate was included as an instrument because it was the lone control variable that met the necessary conditions (i.e., being both relevant and exogenous). Using a similar two-stage process as outlined above, we first regressed top executive departure on the instrumental variables—in our

Table 4. Maximum likelihood estimates of agency executive departure event, 1924–1996 (endogeneity test)

| Independent variables | Model 1 |
|---|---|
| Predicted probability of firm failure | 0.898 |
| | (1.321) |
| Functional heterogeneity of existing top executives | 0.486** |
| | (0.195) |
| Firm size (logged value) | 0.105* |
| | (0.0583) |
| Number of firms in market (logged value) | −1.834*** |
| | (0.692) |
| Advertising industry growth rate | −3.499*** |
| | (0.496) |
| Firm age | 0.00298 |
| | (0.00507) |
| Post-WWII era (1944–1970) | 1.411*** |
| | (0.291) |
| Recession era (1970–1980) | 1.366*** |
| | (0.307) |
| Contemporary era (1980–1996) | 1.841*** |
| | (0.117) |
| Time gap three years | 0.112 |
| | (0.318) |
| Time gap four years | 0.0302 |
| | (0.546) |
| Time gap five years | −0.489 |
| | (0.480) |
| Total top executives with external firm exchange roles | −0.284*** |
| | (0.0766) |
| Total top executives with internal firm routine roles | 0.752*** |
| | (0.0988) |
| Constant | 8.568*** |
| | (3.268) |
| Observations | 7606 |
| Number of firms | 2826 |
| Log Likelihood | −4665 |

***$p < 0.01$; **$p < 0.05$; *$p < 0.1$
Standard errors in parentheses.



DOI: 10.1002/smj

case, the absolute change in revenue between observation $t-1$ and $t$. In the second stage, agency failure was regressed over the predicted values of top executive departure along with the remaining independent and control variables. The results of the instrumental variable regression provided support for our hypotheses and align with our discrete-time hazard results. The table for this analysis was not included due to space constraints, but is available by request from the authors. Overall, the results of the robustness analyses provide substantial evidence that executive departure, while correlated to likelihood of preexisting firm failure, has an independent effect on firm failure, and that our hypotheses are supported when controlling for endogeneity.

## DISCUSSION AND CONCLUSION

The purpose of this study is to integrate the upper echelons perspective with executive mobility research to investigate the characteristics of top executives that affect their value to firms. We extend the upper echelons literature by demonstrating how an executive's functional background affects the viability of the firm from which she or he is departing.

Our study reveals that the negative effects of executive departure from a firm are more closely tied to functional knowledge than has been depicted in previous research (Phillips, 2002; Wezel *et al.*, 2006). Moreover, our findings suggest that the negative effect of executive mobility on a firm's performance is driven by the characteristics of the knowledge the departing executives take with them individually and collectively. Although agencies that lost top executives were more likely to fail, this effect is not uniform for all functional categories. The loss of top executives who managed external relationships (account managers, media executives, and creative directors in the advertising context) had a minimal effect on the likelihood of failure of an agency. Nonetheless, the trade press pays overwhelming attention to these executives, believing that they largely determine which clients are won and retained by the firm and that they can utilize their knowledge to appropriate business from the firm they are leaving (Goldman, 1997). Although the results contradict the industry adage, they are consistent with prior advertising industry research that suggests an agency's client ties are not necessarily weakened by the departure of a creative executive (Broschak, 2004). Here, our extensive sample of all advertising agencies in New York City over seven decades provides evidence that the perceptions of industry observers may not always be aligned with the true nature of the industry's dynamics.

The results of this study also address a puzzle posed within mobility research, namely, how "to identify advantageous higher-order routines in more complex organizations and the location of key employees that may embody them" (Aime *et al.*, 2010: 85). In addressing this issue, we advance research by examining how an executive's position in the structural hierarchy of a firm shapes his or her experiential knowledge (Karim and Williams, 2012). Specifically, we find that losing a top executive who manages the coordination of firm routines is particularly detrimental to the firm's viability. This finding underscores the value of knowledge that a top executive accumulates by managing the production and administrative routines of a firm. Production executives at an advertising agency, for example, must be knowledgeable about how all of the agency's departments work together to produce an advertisement. A critical component of the production function is "traffic control"; that is, making sure all the tangible products that make up an advertisement—written copy, art work, video or audio recordings, etc.—are prepared and submitted to each media outlet in a timely fashion. Traffic control has always been widely considered "a vital internal function of the advertising agency, since the agency operates continuously under the pressure of time to meet publication and broadcast deadlines" (Gamble, 1966: 15).

Our results suggest that executives managing internal firm functions play a vital role in firm viability because their knowledge is uniquely firm specific. When these executives depart, replacements may struggle with managing these complex internal processes, which in turn may jeopardize the functioning of the firm. Moreover, data on the frequency of different functions in our sample (Table 1) indicate there are far fewer top executives in functional roles that govern internal firm routines within the labor market than there are executives that govern external firm exchanges. Thus, the results of this study also imply that the amount of knowledge (i.e., experience) an employee accrues is not the only important factor for the capabilities of a firm; it is also important to determine how firm specific the



DOI: 10.1002/smj

knowledge is and how difficult and costly it would be to replace an employee who has that knowledge (Coff, 1997). For advertising firms, it is apparently more difficult to hire a good traffic control manager than new creative talent. Given that our sample of advertising firms does contain representatives of the largest firms in the economy, future research needs to confirm that greater negative effect of losing executives in functional roles that govern internal firm routines also holds for the largest firms in the economy.

Our study also offers an interesting lens for the study of heterogeneity within top management teams. Despite an accumulation of evidence suggesting that a functionally heterogeneous TMT can be more valuable to the firm than a homogeneous TMT (Rodan and Galunic, 2004), functional diversity remains largely absent in the research on TMT succession and executive mobility. Existing studies that focus on the functional background of departing executives do not consider group departure (Boeker, 1997; Broschak, 2004; Karim and Williams, 2012), and studies that explicitly investigate the group exit of top managers do not consider functional background effects (Wezel *et al.*, 2006). Our findings draw attention to the logical extension of blended insights from the upper echelon and mobility research streams; namely, that a firm losing a functionally heterogeneous group of top executives becomes less competitively viable than a firm that loses a homogeneous group due to the former group's greater negative impact on the store of the firm's knowledge system.

Within professional services, the departure of a group of top executives is not uncommon. While the knowledge complexity related to providing professional services is a deterrent for a single individual to leave a firm, it also increases the likelihood that a group of individuals may depart a firm as a team (Ganco, 2013). Take, for example, the case of the departure of founders Maurice and Charles Saatchi from Saatchi & Saatchi. The two Saatchi brothers, who built the agency into one of the largest in London, each headed a distinct function within the agency. Charles Saatchi worked exclusively within the creative function, creating several groundbreaking advertisements. Maurice Saatchi managed the account relationships and business development for the agency. When the brothers left Saatchi & Saatchi in 1994, due to conflict between Maurice Saatchi and the board of directors, they also took with them three additional senior executives, all of whom had experience in a different function. The agency struggled to replace them, their revenue dropped significantly, and as a result they had to reduce their head count by over 400 employees (Goldman, 1997). We suspect that the reason why losing a group of executives from the same functional area will fare much better than a firm losing a functionally diverse group is because the loss of the latter group of executives is simultaneously a competitive gain for rival firms as well as a loss in the relative competitive position of the focal firm.

The primary limitations to our study are the lack of precise measurement of individual knowledge and the use of a coarse, albeit decisive, measure of organizational performance. We used the presence or absence of individuals as a proxy for knowledge-based contribution to a firm's performance because it was not possible to obtain the educational backgrounds of the over 100,000 executives tracked in this study. Ideally, we would have liked to use other performance measures, but profitability data for the industry are sparse. Thus, reliable performance data in this context exclude a majority of the small and medium-sized firms in our sample. Accordingly, we utilized organizational survival, which can provide an accurate measure of competitive advantage, particularly when a firm's assets are primarily knowledge based (Coff, 1999).

Although we acknowledge this limitation, we see it as an opportunity for further research. Our study has taken a first step in capturing the nature of knowledge that different individuals have within the firm and examining how this affects a firm's competitive viability. Aside from measuring the knowledge of individuals more directly, future research should consider the circumstances under which the capabilities and knowledge at the firm level can be easily decomposed into skills and knowledge at the individual level. Thompson's (1967) distinction between pooled, sequential, and reciprocal task interdependence strikes us as a good starting point. In the case where organizations are mainly structured around pooled or sequential interdependence, individuals should appear to be directly responsible for organization-level performance outcomes, particularly for human asset–intensive organizations such as professional service firms (Coff, 1997). Designing and managing these organizations requires understanding the role that individuals rather than, or in combination with, organization-level processes



DOI: 10.1002/smj

play in an organization's efforts to gain and sustain competitive advantage. A better understanding of these factors will likely provide novel insights about the structure, behavior, and performance of organizations.

## ACKNOWLEDGEMENTS

We gratefully acknowledge editor Will Mitchell and the two anonymous reviewers for their constructive comments. We are thankful for the financial support of this research by the General Motors Research Center for Strategy in Management at the Kellogg School of Management. We appreciate the research assistance of Sophie Kim and Lucia Campbell. We would also like to acknowledge Craig Crossland, James Fredrickson, Ranjay Gulati, Donald Hambrick, Rahul Kapoor, Ram Ranganathan, George Shinkle, Deepak Somaya, Klaus Weber, and Edward Zajac for their insightful comments on earlier versions of the paper.

## REFERENCES

Agresti A, Agresti BF. 1978. Statistical analysis of qualitative variation. *Sociological Methodology* **9**: 204–237.

Aime F, Johnson S, Ridge JW, Hill AD. 2010. The routine may be stable but the advantage is not: competitive implications of key employee mobility. *Strategic Management Journal* **31**(1): 75–87.

Allison PD. 1984. *Event History Analysis: Regression for Longitudinal Event Data*. Sage Publications: Beverly Hills, CA.

Audretsch D, Mahmood T. 1994. The rate of hazard confronting new firms and plants in U.S. manufacturing. *Review of Industrial Organization* **9**(1): 41–56.

Bascle G. 2008. Controlling for endogeneity with instrumental variables in strategic management research. *Strategic Organization* **6**(3): 285–327.

Beyer JM, Chattopadhyay P, George E, Glick WH, Ogilvie D, Pugliese D. 1997. The selective perception of managers revisited. *Academy of Management Journal* **40**(3): 716–737.

Blau P. 1977. *Inequality and Heterogeneity*. Free Press: New York.

Boeker W. 1992. Power and managerial dismissal: scapegoating at the top. *Administrative Science Quarterly* **37**(3): 400–421.

Boeker W. 1997. Executive migration and strategic change: the effect of top manager movement on product-market entry. *Administrative Science Quarterly* **42**(2): 213–236.

Broschak JP. 2004. Managers' mobility and market interface: the effect of managers' career mobility on the dissolution of market ties. *Administrative Science Quarterly* **49**(4): 608–640.

Campbell BA, Coff R, Kryscynski D. 2012a. Rethinking sustained competitive advantage from human capital. *Academy of Management Review* **37**(3): 376–395.

Campbell BA, Ganco M, Franco AM, Agarwal R. 2012b. Who leaves, where to, and why worry? Employee mobility, entrepreneurship and effects on source firm performance. *Strategic Management Journal* **33**(1): 65–87.

Cannella AA, Hambrick DC. 1993. Effects of executive departures on the performance of acquired firms. *Strategic Management Journal* **14**(S1): 137–152.

Carpenter MA, Geletkanycz MA, Sanders WG. 2004. Upper echelons research revisited: antecedents, elements, and consequences of top management team composition. *Journal of Management* **30**(6): 749–778.

Chatterji AK. 2009. Spawned with a silver spoon? Entrepreneurial performance and innovation in the medical device industry. *Strategic Management Journal* **30**(2): 185–206.

Coff RW. 1997. Human assets and management dilemmas: coping with hazards on the road to resource-based theory. *Academy of Management Review* **22**(2): 374–402.

Coff RW. 1999. When competitive advantage doesn't lead to performance: the resource-based view and stakeholder bargaining power. *Organization Science* **10**(2): 119–133.

Crossland C, Hambrick DC. 2007. How national systems differ in their constraints on corporate executives: a study of CEO effects in three countries. *Strategic Management Journal* **28**(8): 767–789.

Fee CE, Hadlock CJ. 2004. Management turnover across the corporate hierarchy. *Journal of Accounting and Economics* **37**(1): 3–38.

Felin T, Hesterly WS. 2007. The knowledge-based view, nested heterogeneity, and new value creation: philosophical considerations on the locus of knowledge. *Academy of Management Review* **32**(1): 195–218.

Finkelstein S, Hambrick DC. 1990. Top-management-team tenure and organizational outcomes: the moderating role of managerial discretion. *Administrative Science Quarterly* **35**(3): 484–503.

Finkelstein S, Hambrick D, Cannella A. 2008. *Strategic Leadership: Theory and Research on Executives, Top Management Teams, and Boards*. Oxford University Press: New York.

Fox SR. 1984. *The Mirror Makers: A History of American Advertising and its Creators* (1st edn). Morrow: New York.

Freeman J, Carroll GR, Hannan MT. 1983. The liability of newness – Age dependence in organizational death rates. *American Sociological Review* **48**(5): 692–710.

Gamble FR. 1966. *What Advertising Agencies are – What They do and How They do It*. American Association of Advertising Agencies, Inc.: New York.

Ganco M. 2013. Cutting the Gordian knot: the effect of knowledge complexity on employee mobility and entrepreneurship. *Strategic Management Journal* **34**(6): 666–686.

Gioia DA, Thomas JB. 1996. Identity, image, and issue interpretation: sensemaking during strategic change in academia. *Administrative Science Quarterly* **41**(3): 370–403.

Goldman K. 1997. *Conflicting Accounts: The Creation and Crash of the Saatchi & Saatchi Advertising Empire*. Simon & Schuster: New York.

Grant RM. 1996. Toward a knowledge-based theory of the firm. *Strategic Management Journal* **17**: 109–122.

Grigoriou K, Rothaermel FT. 2014. Structural microfoundations of innovation: the role of relational stars. *Journal of Management* **40**(2): 586–615.

Groysberg B, Lee LE, Nanda A. 2008. Can they take it with them? The portability of star knowledge workers' performance. *Management Science* **54**(7): 1213–1230.

Guo G. 1993. Event-history analysis for left-truncated data. *Sociological Methodology* **23**: 217–243.

Haleblian J, Finkelstein S. 1993. Top management team size, CEO dominance, and firm performance: the moderating roles of environmental turbulence and discretion. *Academy of Management Journal* **36**(4): 844–863.

Hambrick DC. 1981. Environment, strategy, and power within top management teams. *Administrative Science Quarterly* **26**(2): 253–275.

Hambrick DC, Cannella AA. 1993. Relative standing: a framework for understanding departures of acquired executives. *Academy of Management Journal* **36**(4): 733–762.

Hambrick DC, Cannella AA. 2004. CEOs who have COOs: contingency analysis of an unexplored structural form. *Strategic Management Journal* **25**(10): 959–979.

Hambrick DC, Cho TS, Chen M-J. 1996. The influence of top management team heterogeneity on firms' competitive moves. *Administrative Science Quarterly* **41**(4): 659–684.

Hambrick DC, D'Aveni RA. 1992. Top team deterioration as part of the downward spiral of large corporate bankruptcies. *Management Science* **38**(10): 1445–1466.

Hambrick DC, Mason PA. 1984. Upper echelons: the organization as a reflection of its top managers. *Academy of Management Review* **9**(2): 193–206.

Hamilton BH, Nickerson JA. 2003. Correcting for endogeneity in strategic management research. *Strategic Organization* **1**(1): 51–78.

Hatch NW, Dyer JH. 2004. Human capital and learning as a source of sustainable competitive advantage. *Strategic Management Journal* **25**(12): 1155–1178.

Hayes RM, Oyer P, Schaefer S. 2006. Coworker complementarity and the stability of top-management teams. *Journal of Law, Economics, and Organization* **22**(1): 184–212.

Hayward MLA, Rindova VP, Pollock TG. 2004. Believing one's own press: the causes and consequences of CEO celebrity. *Strategic Management Journal* **25**(7): 637–653.

Hitt MA, Biermant L, Shimizu K, Kochhar R. 2001. Direct and moderating effects of human capital on strategy and performance in professional service firms: a resource-based perspective. *Academy of Management Journal* **44**(1): 13–28.

Jenkins SP. 1997. Discrete time proportional hazards regression. *Stata Technical Bulletin* **STB-39**: 22–32.

Jones JP (ed). 1999. *The Advertising Business: Operations, Creativity, Media Planning, Integrated Communications*. SAGE Publications: Thousand Oaks, CA.

Karim S, Williams C. 2012. Structural knowledge: how executive experience with structural composition affects intrafirm mobility and unit reconfiguration. *Strategic Management Journal* **33**(6): 681–709.

Keeler FY, Haase AE. 1927. *The Advertising Agency, Procedure and Practice*. Harper & Brothers: New York, London, UK.

Klepper S, Thompson P. 2010. Disagreements and intra-industry spinoffs. *International Journal of Industrial Organization* **28**(5): 526–538.

Kraatz MS, Moore JH. 2002. Executive migration and institutional change. *Academy of Management Journal* **45**(1): 120–143.

Lancaster T. 1990. *The Econometric Analysis of Transition Data*. Cambridge University Press: Cambridge, UK.

Lubatkin MH, Simsek Z, Ling Y, Veiga JF. 2006. Ambidexterity and performance in small-to medium-sized firms: the pivotal role of top management team behavioral integration. *Journal of Management* **32**(5): 646–672.

Marx M. 2011. The firm strikes back: non-compete agreements and the mobility of technical professionals. *American Sociological Review* **76**(5): 695–712.

Menz M. 2012. Functional top management team members. *Journal of Management* **38**(1): 45–80.

Mintzberg H. 1973. *The Nature of Managerial Work*. Prentice-Hall: Englewood Cliffs, NJ.

Morgan NA, Vorhies DW, Mason CH. 2009. Market orientation, marketing capabilities, and firm performance. *Strategic Management Journal* **30**(8): 909–920.

Nelson RR, Winter SG. 1982. *An Evolutionary Theory of Economic Change*. Belknap Press of Harvard University Press: Cambridge, MA.

Pennings JM, Lee KM, van Witteloostuijn A. 1998. Human capital, social capital, and firm dissolution. *Academy of Management Journal* **41**(4): 425–440.

Phillips DJ. 2002. A genealogical approach to organizational life chances: the parent-progeny transfer among Silicon Valley law firms, 1946–1996. *Administrative Science Quarterly* **47**(3): 474–506.

Rao H, Drazin R. 2002. Overcoming resource constraints on product innovation by recruiting talent from rivals: a study of the mutual fund industry, 1986–1994. *Academy of Management Journal* **45**(3): 491–507.

Rodan S, Galunic C. 2004. More than network structure: how knowledge heterogeneity influences managerial performance and innovativeness. *Strategic Management Journal* **25**(6): 541–562.

Ryu K. 1994. Group duration analysis of the proportional hazard model – Minimum chi-squared estimators and specification tests. *Journal of the American Statistical Association* **89**(428): 1386–1397.

Schmalensee R, Silk AJ, Bojanek R. 1983. The impact of scale and media mix on advertising agency costs. *Journal of Business* **56**(4): 453–475.

Seabright MA, Levinthal DA, Fichman M. 1992. Role of individual attachments in the dissolution of interorganizational relationships. *Academy of Management Journal* **35**(1): 122–160.




DOI: 10.1002/smj

Semadeni M, Cannella AA Jr, Fraser DR, Lee DS. 2008. Fight or flight: managing stigma in executive careers. *Strategic Management Journal* **29**(5): 557–567.

Shaw JD, Park T-Y, Kim E. 2013. A resource-based perspective on human capital losses, HRM investments, and organizational performance. *Strategic Management Journal* **34**(5): 572–589.

Shen W, Cannella AA. 2002. Revisiting the performance consequences of CEO succession: the impacts of successor type, postsuccession Senior Executive turnover, and departing CEO tenure. *Academy of Management Journal* **45**(4): 717–733.

Simon JL, Mokhtari M, Simon DH. 1996. Are mergers beneficial or detrimental? Evidence from advertising agencies. *International Journal of the Economics of Business* **3**(1): 69–82.

Sivulka J. 1998. *Soap, Sex, and Cigarettes: A Cultural History of American Advertising*. Wadsworth: Belmont, CA.

Somaya D, Williamson I, Lorinkova N. 2008. Gone but not lost: the different performance impacts of employee mobility between cooperators versus competitors. *Academy of Management Journal* **51**(5): 936–953.

Sorensen JB. 1999. Executive migration and interorganizational competition. *Social Science Research* **28**: 289–315.

Stewart R. 1988. *Managers and their Jobs: A Study of the Similarities and Differences in the Ways Managers Spend their Time*. Macmillan: Houndmills, Basingstoke, UK.

Sutcliffe KM. 1994. What executives notice: accurate perceptions in top management teams. *Academy of Management Journal* **37**(5): 1360–1378.

Teece D. 2003. Expert talent and the design of (professional services) firms. *Industrial and Corporate Change* **12**(4): 895–916.

Thompson JD. 1967. *Organizations in Action; Social Science Bases of Administrative Theory*. McGraw-Hill: New York.

Tushman ML, Rosenkopf L. 1996. Executive succession, strategic reorientation and performance growth: a longitudinal study in the U.S. Cement Industry. *Management Science* **42**(7): 939–953.

Virany B, Tushman ML, Romanelli E. 1992. Executive succession and organization outcomes in turbulent environments: an organization learning approach. *Organization Science* **3**(1): 72–91.

Von Nordenflycht A. 2007. Is public ownership bad for professional service firms? Ad agency ownership, performance, and creativity. *Academy of Management Journal* **50**(2): 429–445.

Waller MJ, Huber GP, Glick WH. 1995. Functional background as a determinant of executives' selective perception. *Academy of Management Journal* **38**(4): 943–974.

Wegner DM. 1986. Transactive memory: a contemporary analysis of the group mind. In *Theories of Group Behavior*, Mullen B, Goethals GR (eds). Springer-Verlag: New York.

Wezel FC, Cattani G, Pennings JM. 2006. Competitive implications of interfirm mobility. *Organization Science* **17**(6): 691–709.

Winter SG. 2006. Toward a neo-Schumpeterian theory of the firm. *Industrial and Corporate Change* **15**(1): 125–141.




DOI: 10.1002/smj