ABSTRACT

Commitment human resource systems (CHRS) are used to elicit an employee's long-term commitment to the firm, and research has shown that CHRS are positively associated with firm performance. Yet, firms appear reluctant to use these HR systems. Large shareholders such as institutional investors and founding family owners have been found to influence the strategic decision making of the firm, yet they have been largely absent from the strategic human resource management literature. This is unfortunate given the strong influence that large shareholders can exert on firms. Thus, this study examines the relationship between large shareholders such as institutional investors and founding family owners and CHRS. Overall, the findings indicate that founding family owners and transient institutional investors tend to influence the firm's propensity to use CHRS. Specifically, founding family ownership stake is positively associated with the use of high performance HR practices; whereas, the relationship between founding family ownership stake and employee involvement HR practices is positive up to the founding family owning 11.22 percent of the total common shares outstanding. In addition, transient institutional investors, in general, tend to oppose the use of CHRS. Finally, large shareholders are associated with the firm having cash profit sharing, sufficient retirement benefits, and work life benefits. Given this, large shareholders ought to be considered in future studies as another factor that serves to either enable or constrain the firm's use of CHRS.

AN EXAMINATION OF THE RELATIONSHIP BETWEEN LARGE SHAREHOLDERS AND COMMITMENT HUMAN RESOURCE SYSTEMS

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DISSERTATION

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CHAPTER 1: INTRODUCTION

Over the past two decades, research in strategic human resource management (SHRM) has demonstrated a positive the relationship between commitment human resource (HR) systems and firm performance. Commitment HR systems are used to elicit an employee's long-term commitment to the firm through the creation of employer-employee relationships that are relational as opposed to transactional in nature (Tsui, Pearce, Porter, & Hite, 1995; Tsui, Pearce, Porter, & Tripoli, 1997). This employment relationship entails "some degree of open-ended and long-term investment in each other by both the employee and employer" (Tsui, et al., 1997, p. 1093). In general, these HR systems are associated with such organizational outcomes as lower employee turnover, higher levels of productivity, improved customer satisfaction, and greater financial performance for firms in both manufacturing and service-oriented industries (Arthur, 1992, 1994; Huselid, 1995; MacDuffie, 1995; Rogg, Schmidt, Shull, & Schmitt, 2001; Batt, 2002).

In spite of these findings, many firms appear to be reluctant to commit to employees over the long-term. SHRM scholars (e.g., Osterman, 1994; Phil & MacDuffie, 1996, Osterman, 2000) have observed that the spread of commitment HR systems has been slower than originally anticipated. In fact, firms are increasingly making myopic decisions with regards to managing its workforces. For example, downsizing or restructuring has become commonplace as a key cost-cutting move regardless of the firm's financial health (Smith, Pfeffer, & Rousseau, 2000; Cascio, 2002; Trevor & Nyberg, 2008). Yet, research has shown that layoffs lead to increased voluntary turnover (Trevor & Nyberg, 2008) and lower levels of organizational

commitment, job satisfaction, and workgroup trust among surviving employees (Luthans & Sommer, 1999). Therefore, attention should be given to investigating those factors that both enable and constrain the use of commitment HR systems (Wright & McMahan, 1992; Becker & Gerhart, 1996; Lepak & Snell, 2002).

Firms with founding family owners, one class of large shareholders in publicly traded firms, appear to have high quality employee-employer relationships. Annually, Fortune Magazine publishes the "100 Best Companies to Work For in America" list and highlights the All Stars, those firms that have been a part of the list every year since its inception in 1998 (Levering & Moskowitz, 2009). In 2009, 9 of the 13 All Stars listed are firms with founding family owners.

According to the business press, the human resource management activities of the firm are being scrutinized more and more by another class of large shareholders, institutional investors. In Mercer's Investment Consulting 2006 survey of 183 U.S. institutional investors, 83 percent of respondents said that employee relations (e.g., firms that provide equitable pay, stock ownership, work/life balance, etc.) was either 'very important' or 'somewhat important' to mainstream investment considerations (Mercer Investment Consulting, 2006). Moreover, the California Public Employees' Retirement Systems (CalPERS), the largest pension fund in the US, includes "measures of how well organizations are investing in human resources in their corporate governance plans" (Levine, 1995, pg. 97). Further, CalPERS publicly praises and places on their "Good Citizen" list those firms from its investment portfolio that improve shareholder value over the long-term without sacrificing its employees (Anand, 1996).

Management scholars posit that large shareholders such as founding family owners and institutional investors influence how the firm manages its employees (Harrell-Cook & Ferris, 1997; Hoopes & Miller, 2006; Le Breton-Miller & Miller, 2006; Lee, 2006; Stavrou, Kassinis, & Filotheou, 2007; Dharwadkar, Brandes, & Mullins, 2008). However, there is a paucity of empirical research that examines the role of founding family owners and institutional investors in the firm's use of commitment HR systems. With respect to founding family owners, De Kok, Uhlaner, and Thurik (2006), in an examination of 700 family-owned and managed small to medium sized firms, find that firms with family ownership and/or management are less likely to use professional HR practices. With a sample of French and British firms, Conway, Deakin, Konzelmann, Petit, Reberioux, and Wilkinson (2008) examined the relationship between shareholder pressure operationalized as stock market listing and the use of high performance HRM practices; however, their findings were inconclusive.

This study differs from those previously mentioned studies in two important ways. First, the role of founding family owners in large, publicly traded firms is examined as opposed to small to medium-sized, privately held firms. Second, the presence of institutional investors is directly examined using more traditional measures from the corporate governance literature.

Using the corporate governance and myopia/short-termism literatures, I contend that founding family owners and institutional investors influence the use of commitment HR systems by the firm. Research has shown that large shareholders through their monitoring, temporal orientations, and valuation abilities influence the strategic investments of the firm in corporate innovation (Hoskisson, Hitt, Johnson, & Grossman,

2002; Baysinger, Kosnik, & Turk, 1991), corporate research and development (Bushee, 1998), and corporate entrepreneurship (Zahra, 1996). Investing in human resources through the use of commitment HR systems is argued to be similar to other long-term, strategic investments such as research and development and innovation. For example, long-term investments in human resources through commitment HR systems involve substantial costs (e.g. Lawler, 1988) as well as risks and uncertainties similar to other strategic investments made by the firm (e.g., Bhattacharya & Wright, 2005). Therefore, my primary research question is, *"How do founding family owners and institutional investors impact the use of commitment HR systems?"* The brief theoretical model for this study is presented in Figure 1.

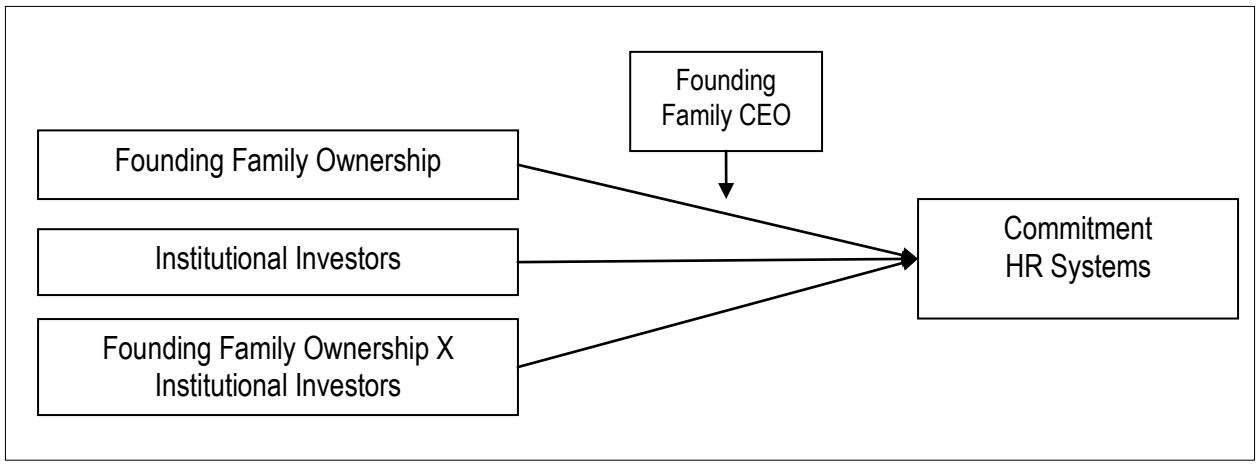

Figure 1. Brief Theoretical Model of Large Shareholders and Commitment HR Systems

Contributions

This study makes three important contributions to the SHRM literature. First, it empirically examines the role of large shareholders (e.g., founding family owners and institutional investors) in the firm's use of commitment HR systems. Prior research to this effect has theoretically explored the influence of shareholders on HR investment (Harrell-Cook & Ferris, 1997) and the relationship between corporate governance

mechanisms including the firm's ownership structure and the use of development-oriented HR systems (Dharwadkar, Brandes, & Mullins, 2008). Second, it addresses calls by SHRM researchers (e.g., Becker & Gerhart 1996; Lepak & Snell, 2002) for an examination of the constraints associated with firms using commitment HR systems by adding large shareholders to the discussion. Third, it investigates the relationship between large shareholders and the use of commitment HR systems over a period of time. This addresses calls by SHRM scholars (e.g., Becker & Gerhart, 1996; Guest, 2001; Gerhart, Wright, McMahan, & Snell, 2000; Wright, Gardner, & Moynihan, 2003) for more longitudinal studies to better understand the direction of causality when examining the relationship between commitment HR systems and other critical constructs of interest. From a practitioner's perspective, firms will benefit from understanding how large shareholders both enable and constrain its investment in human resources through the use of commitment HR systems. According to Bushee (2004), firms have the ability to attract certain types of investors. Thus, firms should seek to attract those shareholders that will enable a long-term approach to managing its employees through commitment HR systems.

Outline of the Dissertation

The dissertation is organized as follows. In Chapter 2, I begin by reviewing the SHRM literature as it relates to commitment HR systems, specifically its characteristics, relationship with firm performance, and key antecedents. Next, I review at the corporate governance literature regarding founding family ownership and institutional investors. The theory and hypotheses are presented in detail in Chapter 3. In Chapter 4, I discuss the research design and methodology for Study 1 and Study 2. The analyses and results

are presented in Chapter 5. In Chapter 6, the findings of this study are discussed. Finally, the conclusion, limitations of the study, managerial implications, and future directions for research are articulated in Chapter 7.

CHAPTER 2: BACKGROUND AND LITERATURE REVIEW

Commitment HR Systems: Literature Review

During the 1970s, commitment HR systems came about as a result of employee disenchantment with the control-oriented approaches to workforce management stemming from Taylorism and increased competition from abroad (Walton, 1985). These systems were based on the underlying philosophy that "eliciting employee commitment would lead to enhanced performance" (Walton, 1985, pg. 80). This represented a clear change in managing human resources in that commitment HR systems viewed employees as being integral to the success of the firm as opposed to being replaceable parts (Guthrie, 2001). Thus, these systems represented a paradigm shift with regards to workforce management.

The goal of commitment HR systems is to develop "committed employees who can be trusted to use their discretion to carry out tasks in ways that are consistent with the organizational goals" (Arthur, 1994, p. 672). Employee discretion is at the heart of commitment HR systems and serves two purposes. First, it increases an employee's motivation to perform. The second reason is that it enables the firm to better deal with uncertainty in the environment, be more flexible and respond quickly to environmental changes (Tsui, et al., 1995). However, discretion alone is not enough. Employees need to acquire firm specific skills that are not marketable to other firms in order to understand the inner workings of the firm (Lepak & Snell, 1999). In addition, firms need to ensure that the decisions employees make are in line with organizational interests. To ensure that employees acquire firm specific skills that are not marketable to other firms and act in the best interest of the firm, employers need to offer inducements to its employees.

Thus, the employment relationship becomes one that is relational rather than transactional. Specifically, this relationship is more of a social exchange where the employee and employer consent to a long-term, open-ended relationship for which the employee learns firm-specific skills and engages in behaviors deemed critical to the firm in exchange for greater employment security and job autonomy from the employer (Tsui, et al., 1995; Tsui, et al., 1997). This is akin to the mutual investment employment relationship described by Tsui, et al (1997) and the organization-focused employment relationship of Tsui, et al (1995).

Commitment HR systems have been empirically examined in the SHRM literature as high performance work practices (e.g., Huselid, 1995), high involvement HR practices (e.g., Guthrie, 2001; Batt, 2002), commitment-based HR systems (e.g., Arthur, 1992, 1994; Collins & Smith, 2006), human-capital enhancing HR practices (e.g., Youndt, et al., 1996) and innovative HR practices (e.g., MacDuffie, 1995). These systems have been argued to differ with regards to the configuration of their underlying individual HR practices (Becker & Gerhart, 1996) and overall objectives (Lepak, Liao, Chung, & Harden, 2006). Yet, many SHRM scholars continue to view and treat these systems as being essentially the same (e.g., Lepak & Snell, 1999, 2002; Wood, de Menezes, & Lasaosa, 2003).

The similarities of these systems far outweigh the differences. First, certain individual HR practices are represented in all of these systems. For example, Collins and Smith (2006), after a review of the SHRM literature, surmised that commitment HR systems generally consist of employee selection practices that focus on person-organization fit and the creation and maintenance of internal labor markets; group and

organizational level compensation practices; and training and development programs that focus on team building and developing firm-specific knowledge. Second, these systems place more emphasis on the internal development of its employees which is contrary to more market-based HR systems that focus more on employee acquisition (Lepak & Snell, 1999). This is done to facilitate the transfer of firm specific skills (Tsui, et al, 1995).

The Link between Commitment HR Systems and Firm Performance

The field of SHRM has placed a tremendous emphasis on investigating the relationship between commitment HR systems and firm performance. The performance outcomes used in examining this relationship fall within four categories—stock-market, financial/accounting, organizational, and human resource (Dyer & Reeves, 1995). Shareholder return is an example of stock-market outcomes. Financial/accounting outcomes refer to sales revenue and net profits. The next two types of outcomes—organizational and human resource—are distinguished from stock-market and financial/accounting outcomes in that they represent more proximal as opposed to distal outcomes (Paauwe & Boselie, 2005). Proximal outcomes are those that contribute to more distal outcomes such as increased sales revenue and higher net income (Paauwe & Boselie, 2005). An emphasis on proximal outcomes serves, in part, to address the call by Becker and Gerhart (1996) for an understanding of "the black box between the firm's HR system and the firm's bottom line" (p. 793). Organizational outcomes place an emphasis on customer satisfaction, quality, productivity, and other operational performance indicators (Dyer & Reeves, 1995; Wright & Kehoe, 2008). Affective and behavioral responses such as job satisfaction and employee turnover comprise human resource outcomes (Dyer & Reeves, 1995; Wright & Kehoe, 2008).

Over the past two decades, SHRM scholars have demonstrated a positive association between commitment HR systems and both distal and proximal firm outcomes. In an examination of 30 US steel minimills, Arthur (1994) found that the mills with a commitment HR system had better manufacturing performance (e.g., higher productivity and lower scrap rates) and lower employee turnover compared to those mills using a control HR system. In a study of 968 publicly-held US firms, Huselid (1995) found that high performance work practices were associated with lower employee turnover, higher levels of employee productivity, and greater firm performance as indicated by accounting and market-based measures. In an investigation of 97 plants in the metal-working industry, Youndt, et al (1996) found that human-capital-enhancing HR systems are associated with higher employee productivity. In an investigation of 164 firms in New Zealand, Guthrie (2001) found that the use of high involvement work practices was associated with lower employee turnover and higher firm productivity. In a study of 136 US high technology firms, Collins and Smith (2006) found that commitment-based HR practices were positively related to the organizational climates of trust, cooperation, and shared codes and languages which facilitate knowledge exchange/combination among knowledge workers leading to improved firm performance. In an investigation of 81 hotels in the People's Republic of China, Sun, Aryee, and Law (2007) found that high-performance work practices were positively related to service-oriented organizational citizenship behavior which was associated with lower employee turnover and higher levels of productivity. These studies represent a small sampling of the universe of studies conducted in this space. To understand a broader set of studies, Combs, Liu, Hall, and Ketchen (2006) conducted a meta-analysis using 92 studies and

found that the use of high-performance work practices is positively related to organizational performance.

In spite of these findings, causality remains a question. Specifically, do commitment HR systems lead to improved firm performance? There remains a paucity of 'authentic' longitudinal studies (e.g., repeated measures of both HR systems and firm performance) that would enable a clearer answer to this question (Wall & Wood, 2005). Using two panel datasets (1977-93; 1977-96) from the National Employers Survey, Cappelli and Neumark (2001) sought to examine the relationship between high performance work practices and organizational performance by incorporating into their design data from the period prior to the advent of the high performance work practices. They found that high performance work practices had little effect on overall labor efficiency measured as output per labor dollar spent. Conversely, Ichniowski, Shaw, and Prennushi (1997) using a panel dataset of 2,190 monthly observations found that innovative HR systems have large effects on productivity compared to more traditional systems of HR practices. Wright, Gardner, Moynihan, and Allen (2005) sought to address the issue of causality by examining the relationship between measures of HR practices and organizational commitment and measures of past, concurrent, and future operational performance using a sample of 45 self-contained business units in a large food service corporation. They found that HR practices and organizational commitment were strongly associated with future performance; however, they were also strongly associated with past performance. The authors posit that the findings do not provide support for the impact of HR practices on firm performance neither does it present proof of reverse causation. The mixed findings from these studies is why SHRM scholars (e.g.,

Wall & Wood, 2005; Wright, et al., 2005) have called for more sophisticated, longitudinal studies that demonstrate how changes in HR practices lead to subsequent changes in performance.

In any event, a number of theoretical frameworks have been used to explicate the relationship between commitment HR systems and firm performance. However, the behavioral perspective, the resource-based view, and the knowledge-based view tend to be the most popular (Wright & McMahan, 1992; Wright, Dunford, & Snell, 2001; Snell, Shadur, & Wright, 2001). The behavioral perspective makes the assumption "that employers use personnel practices as a means for eliciting and controlling employee attitudes and behaviors" (Jackson, Schuler, & Rivero, 1989, pg. 728). The desired employee attitudes and behaviors are those that the firm have deemed critical to achieving its objectives. For example, risk taking is a desired employee behavior when the firm is pursuing a prospector strategy. Thus, the firm will use HR systems to elicit those risk taking behaviors. In the realm of SHRM, employee behaviors mediate the relationship between commitment HR systems and firm performance. One such study was conducted by Sun, et al. (2007) where the employee behaviors under study was service-oriented organizational citizenship behaviors (OCB). Bettencourt and Brown (1997) define service-oriented OCBs as "discretionary behaviors of contact employees in servicing customers that extend beyond formal role requirements" (pg. 41). In the service-oriented, hotel industry located in the People's Republic of China, Sun, et al. (2007) found that high performance work practices were positively related to service-oriented OCBs and that service-oriented OCBs partially mediated the relationship

between high performance work practices and firm performance as measured by productivity and employee turnover.

The resource-based view (RBV) has been instrumental to the development of the field of SHRM (Wright, et al, 2001). According to RBV, a firm's internal resources can be a source of sustained competitive advantage when they are valuable, rare, inimitable, and nonsubstitutable (Barney, 1991). SHRM scholars differ as to whether or not HR systems can be a source of sustained competitive advantage. Wright, McMahan, & McWilliams (1994) posits that a firm's human resources can be a source of sustained competitive advantage and the HR systems can be utilized by the firm to develop and maintain that advantage. On the other hand, Lado and Wilson (1994) argue that the HR systems themselves can be a source of sustained competitive advantage. In spite of RBV's contribution as the theoretical grounding of the field, Boxall and Purcell (2000) considered it an inadequate basis for the broad theoretical framework that SHRM researchers need. Although there have been a number of theoretical SHRM articles using RBV, there are too few empirical pieces that rely solely on the RBV. Therefore, Wright, et al., (2001) have called for researchers to move beyond just the application of the RBV logic to directly testing the RBV's core concepts. However, management researchers debate whether RBV is a testable theory (Barney, 2001; Priem & Butler, 2001).

Building off of the RBV, the knowledge-based view of the firm focuses on the role of HR systems in building and developing the firm competencies that yield a sustained competitive advantage. According to Prahalad and Hamel (1990), core competencies represent "the collective learning of the organization" (pg. 64). The intellectual capital of the firm "represents the foundation of core competencies and the

outcome of the process that facilitate knowledge management" (Snell, et al, 2001, pg. 636). The intellectual capital of the firm consists of its human, social, and organizational capital (Youndt & Snell, 2004). Human capital refers to the knowledge, skills, and abilities of the firm's members, and it has been found to positively impact the performance of the firm (Hitt, Bierman, Shimizu, & Kochhar, 2001; Sherer, 1995). Social capital can enable the creation of new firm knowledge by influencing the conditions necessary for knowledge exchange and combination (Nahapiet & Ghoshal, 1998). Organizational capital is defined as the "institutionalized knowledge and codified experience stored in databases, routines, patents, manuals, structures, and the like" (Youndt & Snell, 2004). The focus of HR systems becomes that of managing the firm's intellectual capital (Snell, et al., 2001). For example, Collins and Smith (2006) found that commitment-based HR systems were indirectly related to firm performance via their effects on the organizational social climate needed to enhance the likelihood of knowledge exchange and combination.

Antecedents of Commitment HR Systems

In spite of these findings connecting commitment HR systems and firm performance, SHRM scholars (e.g., Osterman, 1994; Phil & MacDuffie, 1996) observe that the spread of these HR systems has been slower than originally anticipated. Osterman (2000) found that, although the adoption of high performance work practices within his sample had improved by 13.7 percentage points from 1992 to 1997, over 60% of the sample by 1997 had not adopted these practices. Therefore, attention should be given to investigating the factors associated with the use of these HR systems (Wright & McMahan, 1992; Lepak & Snell, 2002).

The field of SHRM has paid relatively little attention to understanding the factors associated with the use of commitment HR systems. SHRM scholars (e.g., Jackson & Schuler, 1995; Tsui, et al, 1995) have argued that HR systems, in general, are influenced by a number of external and internal factors. The external factors are government regulation, organizational legitimation, level of economic development, nature of the labor force, environment and technology, unionization, industry characteristics, and national culture; and the internal factors are technology, organizational structure, size, life cycle stage, business strategy, tradition and preferences of the organization's executives, labor unions, and job characteristics (Jackson & Schuler, 1995; Tsui, et al, 1995). In addition, Subramony (2006) posits that firms adopt HR practices if it delivers economic value beyond its costs, fits with the corporate strategy, is in line with the decision making processes of the management team, and has been proven effective in other firms. Thus, there are many factors that can lead to the use of commitment HR systems.

SHRM researchers have empirically examined many of these as well as other factors with regards to the use of commitment HR systems. In an investigation of 29 US steel minimills, Arthur (1992) found a positive relationship between the firm's business strategy and the use of a commitment HR system. In an investigation of Irish firms, Roche (1999) ascertains that the avoidance of union recognition and the strategic integration of HRM into the corporate strategy are associated with the adoption of commitment-oriented HRM practices. Using data on 250 Spanish firms, Ordiz-Fuertes and Fernandez-Sanchez (2003) found that firms with innovative cultures, flexible leadership, and in very competitive environments are more likely to adopt high-involvement work practices. Lepak and Snell (1999) argued that firms will use a

commitment HR system for employees whose human capital is both highly unique and valuable to the firm; and Lepak and Snell (2002) in a study of 148 firms found some support for this argument as firms used commitment HR systems as well as other types of HR systems for these employees. In a study of 661 firms from various industries, Toh, Morgeson, and Campion (2008) found that firms that adopt a full range of high-performance HR practices were more likely to value their people, encourage a culture of innovation, and use a mechanistic organizational structure. However, the authors addressed the issue of causality in their study and noted while the firm's context may influence the type of HR systems that a firm uses, the HR system may influence elements of a firm's context.

In the only cross-sectional and longitudinal study on the use of commitment HR systems, Huselid and Rau (1997) examined the impact of external environmental factors (e.g., industry complexity and munificence) and internal organizational factors (e.g., firm size, size of HR department, proportion of managerial employees, union coverage, capital intensity, relative labor costs, R&D intensity, firm systematic risk, competitive strategy, managerial values, and the provision of job security) on the adoption of a high performance work system. High performance work system was examined using its dimensions. Specifically, the 1992 data set had two dimensions of high performance work practices: (1) employee skills and organizational structures (ESOS) which focuses on acquiring and deploying employee skills throughout the firm and (2) employee motivation (EM) which focuses on the reward system of the firm. The 1994 and 1996 datasets had three dimensions: (1) HR strategy which focuses on efforts to link HR and business strategies, (2) performance management (PM) which focuses on linking

individual employee behaviors with firm level outcomes, and (3) selection and development (S&D) which focuses on selecting and developing employees. Overall, the authors found that internal and external factors had a greater impact on the EM dimension of high performance work systems relative to the other dimensions. The authors did, however, note that the relationships that were found could be reduced due to the low reliabilities of their high performance work systems dimensions.

HR scholars have discussed the influence of corporate governance mechanisms such as the board of directors, shareholders, and executive incentives on the firm's HR practices (Gomez-Mejia, 1994; Harrell-Cook & Ferris, 1997; Gospel & Pendleton, 2003; Lawler & Boudreau, 2006). However, there is a paucity of empirical research to this effect. For example, insider ownership (Buck, Filatotchev, Demina, & Wright, 2003) and corporate governance forms (Konzelmann, Conway, Trenberth, & Wilkinson, 2006) are associated with the use of commitment-based HR systems.

The findings as it relates to the influence of shareholders are less clear. In a study of French and British firms, Conway and colleagues (2008) examined the relationship between shareholder pressure operationalized as stock market listing and the use of high performance HRM practices; however, their findings were inconclusive. To determine whether shareholders are associated with the firm's use of certain HR practices, it will be important to study the effects of different types of shareholders on the use of HR systems such as commitment HR systems.

Corporate Governance: A Brief Review

Corporate governance is concerned with ensuring that providers of financial capital to corporations obtain a reasonable return on investment (Shleifer & Vishny,

1997). In publicly traded firms, there is typically a separation of ownership and control. Specifically, the managers (agents) are usually not the owners of their firms. The owners (principals) are residual claimants having unrestricted residual claims on the net cash flows of the firm; and their claim is transferable, is for the life of the firm, and does not require them to be involved in the operation of the firm (Fama & Jensen, 1983a, 1983b). Ever since the classic book by Berle and Means (1932) entitled *The Modern Corporation and Private Property*, this separation of ownership and control has garnered the attention of scholars from multiple disciplines including finance, law, organizational theory, sociology, and corporate strategy (Mizruchi, 2004).

The primary theoretical perspective used to examine the division of ownership and control and the conflicts that can arise is agency theory (Walsh & Seward, 1990). Agency theory focuses on the agency relationship where the principal delegates some decision-making authority to an agent who is responsible for overseeing the day to day operations of the firm (Jensen & Meckling, 1976; Eisenhardt, 1989). Jensen & Meckling (1976) posit that "since the relationship between the stockholders and manager of a corporation fits the definition of a pure agency relationship, it should be no surprise to discover that the issues associated with the 'separation of ownership and control' are intimately associated with the general problem of agency" (p. 309). Conflict, sometimes referred to as the agency problem, can arise in the agency relationship because the owners and managers have different goals and preferences for risk (Eisenhardt, 1989; Walsh & Seward, 1990). Managers tend to be risk averse given concerns surrounding their own employment security and behave opportunistically which in many cases is in direct conflict with the expectations of the firm's owners; whereas, owners are typically

diversified investors making them more risk neutral and prefer to have managers behave in a manner that is consistent with their interests (Berle & Means, 1932; Eisenhardt, 1989; Walsh & Seward, 1990; Shliefer & Vishny, 1997). However, owners are unsure if managers are acting in their best interests due to asymmetry of information (Eisenhardt, 1989; Walsh & Seward, 1990). In other words, managers know more about what is happening within the firm regarding strategic decision-making, investments, etc. than the owners.

Monitoring represents one approach that can be used to ensure that managers are operating the firm in the best interests of its owners (Walsh & Seward, 1990). Chen, Harford, & Li (2007) posit that the benefits of monitoring consist of "the ability to influence management, the potential financial gain from executing such influence, and better information" (p. 283). However, monitoring can be expensive given the costs associated with collecting and evaluating information regarding the firm (Walsh & Seward, 1990; Chen, et al., 2007).

In a survey of corporate governance around the world, Shleifer and Vishny (1997) note that large shareholders who tend to hold substantial equity stakes in the firm can be effective monitors in resolving traditional principal-agent conflicts. Large shareholders have a strong incentive given their high equity stakes to engage in monitoring as their expected returns from monitoring can exceed its costs (Gillan & Starks, 2000). Further, shareholders have the choice between "voice" and "exit" when dealing with poorly performing firms (Hirschman, 1970); however, large shareholders are prone to use "voice" as opposed to "exit" as because divesting their large blocks of equity can substantially reduce the share price (Coffee, 1991). Further, their propensity to engage

in monitoring can depend upon other factors such as their level of pressure sensitivity and temporal horizon (e.g., Hoskisson, et al, 2002; Ryan & Schneider, 2002).

Two classes of large shareholders that are prevalent in the ownership structure of publicly traded firms around the world are founding family owners and institutional investors (La Porta, Lopez de Silanes, & Shleifer, 1999; Burkart, Panunzi, & Shleifer, 2003; Ferreira & Matos, 2008). Their presence within the firm's ownership structure can be explicated based on the four determinants of ownership concentration as proposed by Demsetz and Lehn (1985): (1) value-maximizing size of the firm, (2) control potential, (3) regulation, and (4) amenity potential of the firm's output. First, the value maximizing size of the firm or the size the firm needs to successfully compete in its respective industry can create the risk-neutral effect of size on ownership. Essentially, the greater the firm's size the higher the cost associated with owning a fraction of the firm. This effect coupled with risk aversion can serve to deter shareholders from holding larger equity stakes in the firm given that a greater commitment of their wealth has to be made to a single firm at the expense of pursuing a more diversified investment approach. Founding family owners as opposed institutional investors tend to take that risk as they "are the ultimate capital providers and are typically less diversified" (Villalonga & Amit, 2010). Second, the gains in wealth associated with increased levels of monitoring of the firm speak to the control potential. In other words, the greater the opportunity to realize financial gains as a result of monitoring the more likely founding family owners and institutional investors will either maintain or increase their holdings in the firm. Third, legal regulations such as the Investment Company Act of 1940 and Employee Retirement Income Security Act of 1974 can place limits on the size of holdings and influence of

shareholders thus limiting the presence of large shareholders. These regulations tend to apply primarily toward institutional investors and are of little consequence for founding family owners (Villalonga & Amit, 2010). Fourth, the greater the amenity potential of the firm the more likely large shareholders will be present. Amenity potential refers to the opportunity for shareholders to obtain their consumption goals by influencing the activities of the firm outside of providing general administrative leadership. In other words, influencing the firm's activities provides shareholders with some utility beyond profit maximization. For example, shareholders of mass media firms may find utility in "systematically influencing public opinion" regardless of financial performance and will therefore seek to hold higher equity stakes (Demsetz & Lehn, 1985, p. 1162). This factor is particularly relevant for founding family owners. According to Villalonga and Amit (2010), amenity potential for founding family owners can stem from the "reputational benefits associated with a traditional family name and/or with political or economic connections" (pg. 876). Thus, they will seek to maintain a significant equity stake in the firm.

Given the strong presence of founding family owners and institutional investors within the corporate ownership structure, the next couple of sections further examine these large shareholders with a specific emphasis being given to their propensity to monitor as well as their preferences with respect to their monitoring activities.

Founding Family Ownership

Although mainly associated with small and privately-held firms, founding family owners represent a large class of influential shareholders in publicly traded firms around the world (La Porta, Lopez de Silanes, & Shleifer, 1999; Burkart, Panunzi, & Shleifer,

2003). Take Marriott International, Inc., the global lodging company, for example. The founding family, the Marriott family, owns 25.2% of the firm's outstanding common stock as of 2009. According to Anderson and Reeb (2003b), founding family ownership was found to be prevalent in 35 percent of the Standard & Poor's 500 firms and, on average, accounted for approximately 18 percent of the firm's outstanding equity from 1992 through 1999. They tend to hold their shares for over 78 years and are undiversified investors with much of their personal wealth invested in the firm (Anderson & Reeb, 2003b; Andres, 2008).

Propensity of Founding Families to Monitor

Because a majority of their wealth is tied up in the firm, founding families have the incentive to engage in monitoring as the benefits outweigh the costs (Anderson & Reeb, 2003b; Andres, 2008). Given that effective monitoring requires intimate knowledge of the firm, Anderson and Reeb (2003b) note that founding families "potentially provide superior oversight because their lengthy tenure permits them to move further along the firm's learning curve." (p. 1305). Research has shown that founding family owners can be particularly effective in monitoring the firm. For example, Anderson, Mansi, & Reeb (2003) find that founding family ownership is associated with a lower cost of debt financing. Wang (2006) finds that founding family ownership, on average, is related to higher quality earnings.

Founding Family Control

Founding families can exercise control over the firm beyond their equity stake in three ways. First, members of the founding family can directly participate in the

management of the firm by serving in the capacity of CEO or in other top management roles (Anderson & Reeb, 2003b). Second, voting structures can be put in place by the founding family that enables their voting rights to exceed their cash flow rights (Villalonga & Amit, 2006, 2010). Examples of these voting structures include multiple share classes, pyramids, cross-holdings, and voting agreements. Third, the presence of founding family members on the board of directors can extend founding family control (Villalonga & Amit, 2010). In addition, Anderson and Reeb (2003a) note that in those instances when the founding family does not have majority ownership "they directly control 2.8 times as many board seats as their ownership provides" (p. 654).

Founding family control can serve to mitigate the traditional principal-agent conflict as voting structures and representation on the board of directors can enhance the founding family's ability to monitor. Moreover, founding family members as apart of the firm's management can cause monitoring costs to be reduced as the interests of managers and owners naturally become tightly aligned (Fama & Jensen, 1983a; James, 1999). However, scholars have recognized that founding family control can lead to a second agency problem or Agency Problem II which is the expropriation of minority shareholder wealth (La Porta, Lopez de Silanes, & Shleifer, 1999; Faccio, Lang, & Young, 2001; Burkart, Panunzi, & Shleifer, 2003; Villalonga & Amit, 2006, 2010). Expropriation occurs when founding families use their control in the firm to secure private benefits while simultaneously denying small or minority shareholders an appropriate investment return (Morck, Shleifer, & Vishny, 1988; Dhardwadkar, George, & Brandes, 2000; Villalonga & Amit, 2006). Similar to the traditional principal-agent conflict or Agency Problem I, information asymmetry in this case between founding family owners and

minority shareholders can serve to exacerbate Agency Problem II. For example, Anderson, Duru, and Reeb (2009) find that founding families use opacity or low levels of financial transparency to obtain private benefits at the expense of minority shareholders. Further, Agency Problem II is relevant in emerging economies with weak corporate governance mechanisms and restricted legal protection of small shareholders (Dharwakdar, George, & Brandes, 2000). Although there exists the potential for Agency Problem II in the US context (Villalonga & Amit, 2010), Anderson and Reeb (2003a) finds no support for minority shareholder wealth expropriation. In fact, they conclude that minority shareholders actually benefit from having founding family owners as apart of the ownership structure in large firms.

Given the challenge of expropriation presented by founding family control, Villalonga and Amit (2006) sought to determine the relative impact of both agency problems on firm value. In an examination of all Fortune 500 firms from 1994 to 2000, they find that firms exposed to Agency Problem II have a higher industry-adjusted Tobin's *q* compared to firms exposed to Agency Problem I. In other words, Agency Problem II is less costly and harmful to shareholder value relative to Agency Problem I. Thus, the benefits of founding family control on the firm's value appear to outweigh the associated costs.

Preferences of Founding Families

Given that they hold shares in their firms for over 78 years, founding family owners are considered committed, long-term investors (Anderson & Reeb, 2003b). They seek to pass their firm ownership from one generation to the next (James, 1999) making them concerned with the survival of the firm (Anderson & Reeb, 2003b). This focus on

the survival of the firm to create wealth for succeeding generations is consistent with a long-term investment horizon (Harris, Martinez, & Ward, 1994; Kets de Vries, 1993). Moreover, founding family owners identify closely with or have a reputational stake in the business causing them to put forth a tremendous amount of effort to ensure the long-term success of the firm (e.g., Jayaraman, Khorana, Nelling, & Covin, 2000). Finally, family firms are not opposed to risk-taking. Anderson and Reeb (2003a) argued that founding family owners will pressure their firms to pursue risk reduction strategies through diversification and lower debt levels; however, they found that family-owned firms undergo less diversification and have comparable debt levels relative to non-family firms. Thus, founding family owners are willing to take an appropriate level of risk to ensure the long-term survival of their firms.

Institutional Ownership

Similar to founding family owners, institutional investors are represented within the ownership structure of publicly traded firms around the world (Ferreira & Matos, 2008). They consist of public and private pension funds, mutual funds, insurance companies, and banks (Ryan & Schneider, 2002). Since the 1970s, the percentage of ownership by institutional investors has risen dramatically (Hansen & Hill, 1991). According to Edwards and Hubbard (2000), institutional investors account for greater than 56% of the outstanding shares on the major U.S. stock exchanges. Given their increased presence, institutional investors have been viewed as an effective mechanism for the mitigation of agency conflicts (e.g., Schleifer & Vishney, 1997), and research has shown that institutional investors are effective monitors (e.g., Hansen & Hill, 1991; Kochhar & David, 1996; Hartzell & Starks, 2003).

Moreover, their monitoring effectiveness has been largely determined at the firm-level based on the size of their equity holding in the firm (e.g., Hanson & Hill, 1991; Hartzell & Starks, 2003; Khan, Dharwadkar, & Brandes, 2005). However, Dharwadkar, Goranova, Brandes, and Khan (2008) advocate for consideration of the portfolio characteristics of institutional investors given its potential to negate monitoring effectiveness at the firm-level. While this advances research with regards to institutional investor monitoring (Hambrick, v. Werder, Zajac, 2008), Dharwadkar, et al., (2008) note that their findings are not entirely conclusive with regards to institutional investor portfolios. Further, their study places its focus exclusively on executive compensation. Thus, support for portfolio-level effects with regards to institutional investor monitoring, at this point, appears to be limited to organizational issues with respect to executive compensation.

Through their monitoring activities, institutional investors can actively seek to influence the strategic direction of the firm either directly or indirectly via corporate governance refinements (Ryan & Schneider, 2002). Direct monitoring actions can consist of "voting proxies to counter portfolio firm's management positions, filing shareholder proposals, and initiating frequent contact with portfolio firm's management" (Ryan & Schneider, 2002, p. 555). Further, indirect refinements to corporate governance have entailed influencing the composition of the board and its committees (Smith, 1996; Carleton, Nelson, & Weisbach, 1998) and the level and proportion of long-term incentives in executive compensation (David, Kochhar, Levitas, 1998; Hartzell & Starks, 2003).

Propensity of Institutional Investors to Monitor

Not all institutional owners are prone to engaging in monitoring (e.g., Kahn & Winton, 1998). Ryan and Schneider (2002) posit that the level of pressure sensitivity, size of corporate holding, and investment time horizon represent three factors that determine the likelihood of monitoring by individual institutional investors. According to Brickley and Smith (1988), only pressure-resistant institutions or those institutions with little to no dealings with their portfolio firms beyond the financial investment are likely to actively monitor the management of their portfolio firms. Public pension funds, mutual funds, and foundations are considered pressure-resistant institutions; whereas, banks and insurance companies are pressure-sensitive given their extensive dealings with their portfolio firms in addition to their equity holdings (Brickley & Smith, 1988). In other words, pressure-sensitive institutions are unwilling to risk current and potential business by challenging the management of the portfolio firm.

The likelihood of free riders is another reason as to why institutions may refrain from exercising "voice". Institutional owners weigh the costs versus the benefits of engaging in monitoring given that other shareholders may benefit from their efforts (Hoskisson & Turk, 1990). As the size of their equity holdings in a portfolio firm increase, institutional investors become less likely to exit by selling their shares given that the value of their investment will decline (Coffee, 1991; Pound, 1992; Johnson & Greening, 1999). Instead, they become more inclined to monitor as the benefits of monitoring far exceed the costs (Gillan & Starks, 2000). Thus, the likelihood of free riders does not act as a deterrent to monitoring for institutional investors with large equity stakes.

Finally, the length of the investment horizon can determine whether institutional investors will monitor. Institutional investors with shorter investment horizons tend to use "exit" when dealing with underperforming firms given their concern with near-term earnings (Bushee, 1998; Bushee, 2001). As such, these investors "have fewer incentives to spend resources in monitoring, as they are less likely to remain shareholders of the firm long enough to reap the corresponding benefits" (Gaspar, Massa, & Matos, 2005, p. 137). Conversely, institutional owners with longer investment horizons are prone to engage in active monitoring given their tendency to hold equity stakes in portfolio firms over long periods of time (Ryan & Schneider, 2002). In addition, these investors have more time to learn and assess the strategic decision making of the firm (Chen, Harford, & Li, 2007).

Preferences of Institutional Investors

Early research treated institutional investors as a homogenous group (e.g., Graves, 1988; Baysinger, et. al., 1991; Hansen & Hill, 1991; Kochhar & David, 1996; Wright, Ferris, Sarin, & Awasthi, 1996); however, Ryan and Schneider (2002) have noted that the findings from such studies proved mixed. Since then, scholars have come to recognize that institutional investors are a heterogeneous group with differing preferences regarding the strategic decision making and operation of the firm (e.g., Bushee, 1998; Johnson & Greening, 1999; Hoskisson, et al, 2002; Tihanyi, Johnson, Hoskisson, & Hitt, 2003). In order to examine these differing preferences, institutional investors have been placed into various categories. Fund type and past investment behavior represent two separate, yet more commonly used approaches to categorizing institutional investors.

Pension funds, mutual funds, banks, and insurance companies represent the different types of institutional investors on the basis of fund type (Ryan & Schneider, 2002). However, greater attention is focused on pension funds and mutual funds as these institutional investors are considered independent given their lack of sensitivity to pressure from the management of the portfolio firm (Brickley & Smith, 1988). Pension funds have low liquidity requirements given that the payout to beneficiaries (e.g., pensioners) is typically predictable (Hoskisson, et al., 2002; Ryan & Schneider, 2002). In addition, pension funds tend to be long-term investors in that they can hold equity stakes in a firm up to ten years (Gilson & Kraakman, 1991). Finally, pension funds have been found to be supportive of the firm making long-term, yet risky strategic investments in such areas as internal innovation (Hoskisson, et al., 2002). In contrast, mutual funds tend to have a short-term rather than a long-term orientation. They have high liquidity requirements given that their beneficiaries can trade in their shares at anytime and they tend to turnover their portfolios frequently (Levinthal & Myatt, 1994; Ryan & Schneider, 2002). Finally, mutual funds are not tolerant of long-term strategic investments by portfolio firms and prefer more strategic investments that yield short-term results (Hoskisson, et al., 2002).

Bushee (1998) developed an alternative approach to classifying institutional investors that takes into account their past investment behavior. Specifically, institutional investors are categorized based on three factors: (1) level of portfolio diversification, (2) degree of portfolio turnover, and (3) trading sensitivity to current earnings. Based on these factors, three groups of institutional investors are identified: (1) dedicated, (2) transient, and (3) quasi-indexer. Dedicated institutional investors tend to have

concentrated holdings in a few firms, low turnover of portfolio firms, and do not buy or sell equity stakes based primarily on current earnings. Based on their investment behavior, dedicated institutional investors are deemed to have a long-term investment horizon (Bushee, 1998). Transient institutional investors are the direct opposite of dedicated institutional investors in that they have highly diversified portfolios of firms, frequently buy and sell their holdings in firms, and engage extensively in momentum trading (e.g., buy and sell on the basis of current earnings). Research has shone that transient institutional investors have a short-term investment horizon given their preference for near-term earnings at the expense of long-term value (Bushee, 1998; 2001). Finally, quasi-indexers have high portfolio diversification and low turnover of portfolio firms which lends itself to the use of a buy and hold strategy. However, these institutional investors are considered passive owners that tend to relinquish their potential influence on the management of the portfolio firm, leaving this to other more active investors (Porter, 1992; Bushee, 1998). Given this, quasi-indexers tend to be of less interest relative to dedicated and transient institutional investors (e.g, Connelly, Tihanyi, Certo, & Hitt, 2010).

CHAPTER 3: THEORY DEVELOPMENT

Founding family owners and institutional investors can through their monitoring activities mitigate the traditional principal-agent conflict while simultaneously influencing the strategic decision-making and actions of the firm.[1] For example, these large shareholders have been found to influence the firm's strategic investments in corporate innovation (Hoskisson, et al., 2002; Baysinger, et al., 1991), corporate research and development (Bushee, 1998; Villalonga & Amit, 2006), and corporate entrepreneurship (Zahra, 1996). Although investments in each of these areas have been found to be positively related to profitability (e.g., Hill & Snell, 1988), they can come at a considerable cost to the firm. For example, big technology companies (e.g., IBM, Apple, Microsoft, etc.) spent $9.70 on research and development for every $100 in revenue in 2007; and at the top of the industry spending list was Microsoft with 12.8% of its revenue or approximately $7 billion spent on research and development (Hertzberg, 2008). Moreover, these substantial costs are incurred in "the near term with payoffs likely over the long term" (David, Hitt, & Gimeno, 2001, pg. 144). Finally, these investments "involve great uncertainty, both in timing and in their probability of success" (Graves & Langowitz, 1993, pg. 596). Thus, strategic investments that involve substantial costs, long-term payoffs, and a high degree of risk and uncertainty appear to capture the interests of founding family owners and institutional investors.

[1] Although founding family owners can serve to mitigate the traditional principal-agent conflict or Agency Problem I (Fama & Jensen, 1983a; James, 1999), their control can lead to the expropriation of minority shareholder wealth or Agency Problem II (La Porta, Lopez de Silanes, & Shleifer, 1999; Faccio, Lang, & Young, 2001; Burkart, Panunzi, & Shleifer, 2003; Villalonga & Amit, 2006, 2010). Villalonga and Amit (2006) sought to examine the relative impact of both agency problems on firm value and found that Agency Problem II is less costly and harmful to shareholder value relative to Agency Problem I. Moreover, Anderson and Reeb (2003a) find that minority shareholders in fact benefit from having founding family owners as apart of the firm's ownership structure in large US firms. Given this, I focus on Agency Problem I or the traditional principal-agent conflict as it relates to the use of commitment HR systems.

Across multiple industries, human resources can cost the firm on average 26.1% of revenue (Grossman, 2005). Firms invest in its human resources via its HR system (cf., Cascio, 1991), and the use of commitment HR systems represents an investment in human resources similar to other strategic investments with substantial costs, long-term payoffs, and a high degree of risk and uncertainty. As stated previously, commitment HR systems are positively associated with firm performance (e.g., Combs, et al., 2006); however, commitment HR systems can incur higher costs relative to other types of HR systems (Lawler, 1988; Tsui, et al., 1995). For example, Wegmans, a supermarket chain based out of Rochester, NY, uses a commitment HR system and has for the past 12 years been featured on Fortune Magazine's list of "100 Best Companies to Work For in America". In the ultra cost competitive supermarket industry, Wegmans' labor costs, on average, run between 3 to 5 points higher as a percentage of sales compared to other supermarkets; however, its annual employee turnover rate is 6% compared to 19% for supermarket chains with a similar number of stores (Boyle, 2005). The expenses of a commitment HR system stem primarily from its focus on the employee's well-being and career within the firm (e.g., employment security) through the creation of internal labor markets and the development of firm-specific skills in employees (Walton, 1985; Tsui, et al, 1995; Tsui, et al, 1997; Lepak & Snell, 1999).

While Lawler (1988) notes that the initial investment in selection, training, and system development is high, the investment to the firm can also be ongoing indicating uncertainty of cost (Bhattacharya & Wright, 2005). For example, inflation can cause the purchasing power of retirement benefits to decline; therefore, employers with a defined benefit plan may need to provide additional funds to their plans in order to account for

that inflation. In 2002, IBM contributed $1.5 billion to fund its pension plan given the economic environment (Wolf, 2002). Moreover, Lepak & Snell (1999) suggest that investment in training and development should be ongoing as knowledge can decay over time.

In addition to these 'out-of-pocket' expenses, firms can incur opportunity costs (Snell & Dean, 1992). The opportunity costs arise out of the choice to develop employees internally as opposed to hiring employees with the necessary skills to perform in the job immediately (Snell & Dean, 1992; Tsui, et al., 1995). Commitment HR systems place an emphasis on identifying employees with future potential who could benefit from additional training (Lepak & Sell, 1999). Thus, the return on investment will not be immediate with the payoff being more long-term. In an examination of 93 law firms in the US, Hitt et al (2001) found that the relationship between the human capital of newly appointed law partners and firm performance to be curvilinear with it being negative early and becoming positive over time. They noted that with early investments in human resources that the costs will exceed the benefits; however, continued investments over time will yield greater benefits.

In addition to the costs associated with the use of commitment HR systems, these systems can present risks and uncertainties as it relates to investment returns (Bhattacharya & Wright, 2005). The risk and uncertainty inherent in commitment HR systems stem from employee turnover and knowledge decay. Although employee turnover is low in firms that use commitment HR systems (Arthur, 1994; Huselid, 1995; Guthrie, 2001; Batt, 2002), this turnover has a greater negative relationship with firm performance compared to firms that either do not adopt or are limited in their use of

commitment HR systems. Arthur (1994) found that the negative relationship between employee turnover and manufacturing performance was stronger in commitment human resource systems relative to control human resource systems. When the use of high-involvement work practices is high, Guthrie (2001) found that turnover was negatively associated with firm productivity. Given the high level of employee involvement in the firm, Arthur (1994) posits that there exists "the potential for their departure to disrupt organizational functioning" (674).

Moreover, environmental shifts present another element of risk associated with using commitment HR systems. Lepak & Snell (1999) posit that "as competition becomes more dynamic, firms may not have enough time to fully recoup their human capital investments. At the same time, without these investments, firms are likely to fall behind as barriers to imitation are challenged and overcome" (p. 45). With environmental uncertainty, firms risk investing in employee training to find that those skills have become obsolete. Firms would then not reap the full benefits of their investment in employee development. Therefore, firms must make a strategic choice with regards to investing in its human resources via a commitment HR system similar to other long-term, strategic investments.

Theoretical Model

Although commitment HR systems are positively associated with firm performance (e.g., Huselid, 1995; Combs, et al., 2006), founding family owners and institutional investors will likely seek to influence this type of strategic investment in the firm's workforce given its substantial costs, long-term payoffs, and high degree of risk and uncertainty. A useful framework for examining this relationship comes from

Dharwadkar, Brandes, and Mullins (2008). Specifically, they contend that corporate governance mechanisms such as large shareholders with (1) a long-term, temporal orientation and (2) the ability to value long-term, strategic firm investments will be associated with the firm's use of a "development-orientated' HR system. These HR systems are similar to commitment HR systems in that both at its core place a tremendous focus on employee development. Therefore, this framework is used to explicate the relationships between large shareholders (e.g., founding family owners and institutional investors) and commitment HR systems[2].

The first criterion within the framework proposed by Dharwadkar, Brandes, and Mullins (2008) is long-term, temporal orientation. Large shareholders with a long-term investment horizon provide what is known as "patient capital" to firms in their portfolio (Smith, Pfeffer & Rousseau, 2000). Analogous to patient capital is 'dedicated capital' (Porter, 1992) and 'long-termism' (Solomon & Solomon, 1999). Patient capital has been used to describe shareholders who are willing to hold stocks long-term although greater immediate returns are readily available elsewhere (Post, Preston, & Sachs, 2002). In other words, these shareholders are willing to forgo short-run returns in anticipation of greater returns down the road. The need for liquidity can determine whether a large shareholder will provide the firm with patient capital. Pension funds have been typically

[2] Although Rediker and Seth (1995) argue that monitoring and incentive alignment mechanisms may substitute for one another, I do not consider incentive alignment mechanisms (e.g., managerial ownership and stock options) as apart of this study for two reasons. First, much of the research that places an emphasis on substitutability considers only the monitoring done by the board of directors as oppose to large shareholders in relation to incentive alignment mechanisms (e.g., Zajac & Westphal, 1994; Rediker & Seth, 1995, Tosi, Katz, & Gomez-Mejia, 1997). Second, the opposite side of the substitutability argument is that of complementarity (Ward, Brown, & Rodriguez, 2009). In other words, corporate governance mechanisms complement as oppose to substitute for one another in mitigating agency problems. In a longitudinal examination of institutional investors and the pay-for-performance sensitivity of executive compensation, Hartzell and Starks (2003) find that "institutional investors serve as a complementary monitoring device to incentive compensation" (p. 2365). Taken together, support for the substitution argument with regards to monitoring by large shareholders and incentive alignment mechanisms appears lacking which is why I did not place an emphasis on incentive alignment mechanisms as apart of this study.

considered as having a long-term investment horizon primarily because they do not have a high liquidity requirement as payouts to beneficiaries are long-term and predictable; whereas, mutual funds have more of a short-term investment horizon given the high need for liquidity as shares can be redeemed by beneficiaries at any time (Hoskisson, et al., 2002; Ryan & Schneider, 2002).

Patient capital becomes critical to firms seeking to promote value creation over the long-term as well as sustained competitive advantage (Smith, Pfeffer, & Rousseau, 2000). According to agency theory, shareholders, specifically large shareholders, can through their monitoring activities pressure managers to behave in accordance with their best interests (Eisenhardt, 1989). Shareholders with a long-term orientation are supportive of long-term investments where economic value is created by leveraging "resources that requires time to build" (Smith, Pfeffer, & Rousseau, 2000, pg. 261). Thus, firms with patient capital are better able to pursue strategic long-term investments in such areas as R&D and internal innovation (Bushee, 1998, Hoskisson, et al., 2002). Moreover, patient capital has been argued to influence the relationship between employees and employers. For example, Smith, Pfeffer, & Rousseau (2000) posit that patient capital enables advantages associated with attachments between employees and employers. Post, Preston, & Sachs (2002) contend that patient capital will provide employees with "assurance that their own commitments to the firm will not be jeopardized because of short-run financial pressures" (pg. 48).

On the other hand, shareholders lacking in patient capital succumb to 'short-termism' (e.g., Laverty, 1996) which is defined as "a preference for actions in the near term that have detrimental consequences for the long-term" (Marginson & McAulay,

2008; p. 274). In other words, these shareholders prefer improved earnings in the near-term at the expense of long-term growth (Samuel, 2000). According to Laverty (1996), they represent fluid and impatient capital given their rapid movement from firm to firm "usually based on perceptions of opportunities for near-term appreciation" (Porter, 1992, p. 69). Thus, long-term strategic investments by the firm in intangible assets like research and development are less likely to occur (e.g., Zahra, 1996; Bushee, 1998, Hoskisson, et al, 2002). Further, Harrell-Cook and Ferris (1997) posit that pressures from shareholders concerned with short-term financial performance will negatively influence the firm's level of investment in its workforce. Moreover, employee downsizings have been attributed to this emphasis on short-termism (Smith, Pfeffer, & Rousseau, 2000), and firms that regularly use this approach view employees "as costs to be cut rather than assets to be developed" (Casio, 2002, p.1).

The ability to value long-term, strategic firm investments is the second criterion proposed by Dharwadkar, Brandes, and Mullins (2008). Large shareholders may lack complete information regarding the firm's strategic choices (Laverty, 1996). Therefore, their ability to value the strategic long-term investments of the firm becomes vital. Strategic investments in intangible resources such as patents and human capital are difficult to value given that these resources do not frequently appear on the balance sheet (Hall, 1993). Further, the value of these resources is not reflected in stock prices (Brennan, 1990). Thus, shareholders will be challenged to ascertain the true value of a firm's intangible resources due to information asymmetry (Brennan, 1990; Laverty, 1996). Specifically, shareholders have less information about the firm and its investments than managers do (Eisenhardt, 1989). Shareholders can acquire private

information from managers regarding the firm's strategic investments in areas such as R&D; however, this will be costly in terms of the amount of time and level of resource commitments required to do so (e.g., Aboody & Lev, 2000).

When private information is lacking, shareholders prefer investments that pay-off faster causing them to potentially under value long-term investments (Thakor, 1990; Laverty, 1996). Jacobson and Aaker (1993) investigated the potential differences in information asymmetry between managers and investors in U.S. and Japanese stock markets. Their findings suggest that greater information asymmetries in the US relative to Japan are creating a short-term, managerial focus. Further, there is more of an inclination to rely exclusively on readily available, financial data which leads to an emphasis on near-term financial results and less tolerance for risky, long-term investments (Hitt, Hoskisson, Johnson, & Moesel, 1996; Hoskisson, et al, 2002).

On the other hand, shareholders that have an in-depth knowledge of the firm are better able to move beyond financial indicators and evaluate the long-term value of the firm's strategic investments (Smith, Pfeffer, & Rousseau, 2000). Essentially, they recognize that long-term value creation cannot be captured by financial indicators alone (Smith, Pfeffer, & Rousseau, 2000). This is consistent with the use of strategic controls as articulated in the corporate diversification literature for which corporate managers use 'rich information' to make a subjective evaluation of the quality of the process leading to financial performance at the division level (e.g., Baysinger & Hoskisson, 1989; Hitt, Hoskisson, Johnson, & Moesel, 1996; Rowe & Wright, 1997). Regarding investments over the long-term, Hitt and colleagues (1996) found that the use of strategic controls was positively associated with internal innovation. Further, Rowe and Wright (1997) posit

that the use strategic controls lead to an emphasis on the use of innovative, flexible HR practices that require a long-term investment in HR comparable to commitment HR systems. Similar to corporate managers, shareholders that acquire an in depth understanding of the firm's operations and its strategic investments will likely support investments that create long-term value like the use of commitment HR systems.

Hypotheses

Based on this framework, I propose the following hypotheses that focus on the preferences of founding family owners and institutional investors for commitment HR systems. A detailed theoretical model is presented in Figure 2. First, I explore the preferences of founding family owners for commitment HR systems. In addition, the moderating role of having a founding family member in the position of CEO is examined with regards to the relationship between founding family ownership and commitment HR systems. Second, I consider the preferences of short-term (e.g., transient) and long-term (e.g., dedicated) institutional investors on the firm's use of commitment HR systems.[3] Third, I examine the joint effects of long-term as well as short-term large shareholders on the firm's use of commitment HR systems.

[3] Following Connelly, Tihanyi, Certo, and Hitt (2010), I ignore quasi-indexer institutional investors and focus instead on the two most differentiated categories of institutional investors (e.g., transient & dedicated) based on Bushee's (1998) classification system. Moreover, transient and dedicated institutional investors tend to engage in activism; whereas, quasi-indexer institutional investors are passive owners that relinquish their potential influence on the portfolio firm to other more active investors (Porter, 1992; Bushee, 1998). In other words, quasi-indexer institutional investors tend to not play an active role in influencing the activities of the firm.

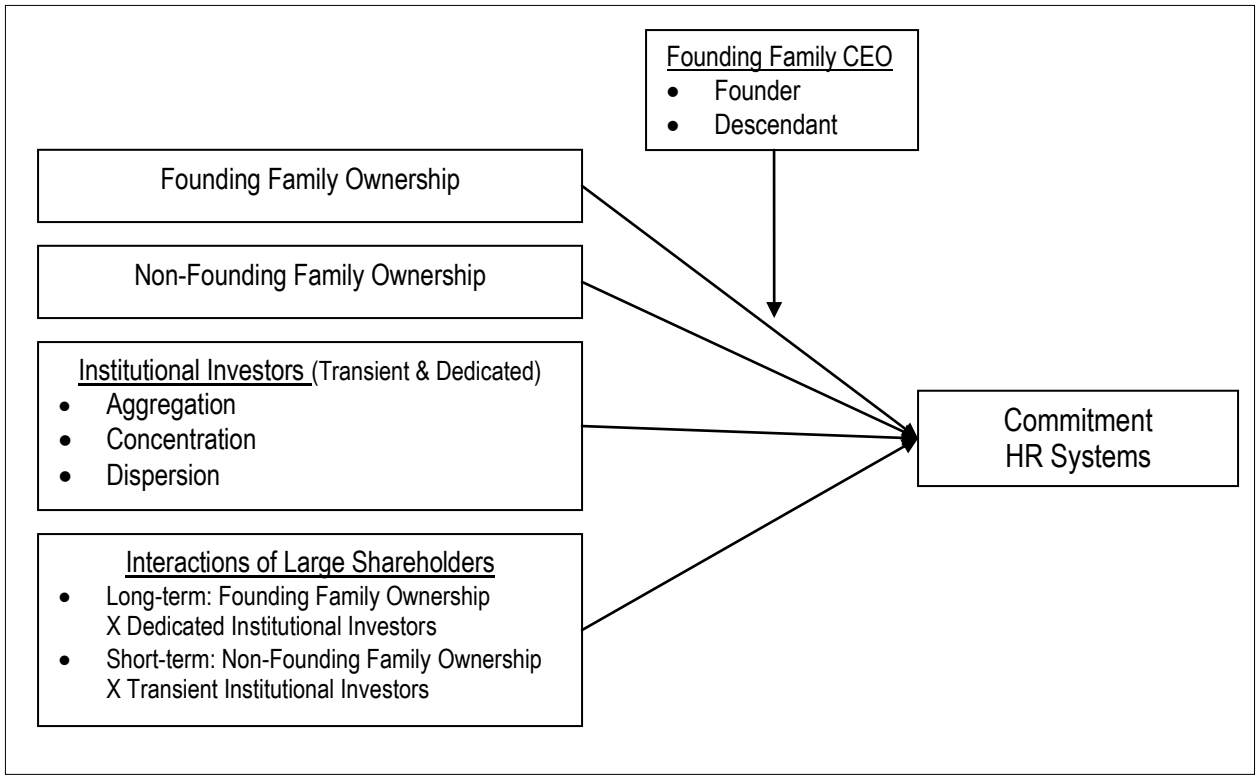

Figure 2. Detailed Theoretical Model of Large Shareholders and Commitment HR Systems

Founding Family Ownership and Commitment HR Systems

Founding family owners are concerned with the long-term viability of the firm given their tendency to have a majority of their private wealth tied up in the firm and to pass their ownership of the firm to subsequent generations (Kets de Vries, 1993; Harris, Martinez, & Ward, 1994; James, 1999; Anderson & Reeb, 2003b; Andres, 2008). Given their preference for the long-term survival of the firm, founding family owners are considered to have a long-term investment horizon. According to Villalonga and Amit (2006), family and non-family firms differ with regards to their investment policies. Specifically, they found that family firms have relatively higher capital expenditures and are less prone to being diversified compared to non-family firms. Overall, this provides an indication that family firms typically make long-term strategic investments.

Family firms have been argued to commit to its employees long-term. Hoopes & Miller (2006) posit that family firms are likely to invest more in its human resources relative to other types of firms. Because of the concern to pass a healthy business on to heirs, Le Breton-Miller & Miller (2006) contend that family firms relative to rivals "will invest more in paying, training, and retaining their human resources, in long-term employee benefits, rewards for seniority, opportunities for advancement, and designing attractive jobs" (p. 739). Moreover, family firms are reluctant to lay-off employees. In a sample of S&P 500 firms from 1992-2002, Lee (2006) finds that during an economic downturn that family owned firms are less likely than non-family owned firms to lay-off employees. In a sample of Fortune 500 firms from 2000 to 2002, Stavrou, Kassinis, & Filotheou (2007) found that family firms downsize less than non-family firms regardless of financial performance considerations. Thus, family firms are likely more committed to its employees long-term making the use of commitment HR systems apparent. Further, the founding family owners have information advantages over other non-founding family shareholders (Anderson & Reeb, 2003b) which give them the ability to better value the firm's investment in its human resources through the use of commitment HR systems. Therefore,

Hypothesis 1: Founding family ownership is positively associated with the use of commitment HR systems.

Moderating Effects of Founding Family CEOs

According to Anderson & Reeb (2003b), founding families can exercise either passive or active control over the strategic decision-making of the firm. Passive control entails merely holding an equity stake in the firm; whereas, active control consists of the

founding family being involved in the management of the firm beyond just being an equity holder. In a study of 1672 non-financial firms in Western Europe, Maury (2006) found that active family control is associated with higher profitability measured as return on assets relative to non-family firms; whereas, passive family control was not found to affect profitability. Thus, active control enables founding family owners to better influence the strategic activities of the firm.

Active control can be demonstrated by having a member of the founding family hold the position of CEO. Research has shown that having a founding family member as CEO is beneficial to the firm. Anderson & Reeb (2003b) found that CEOs who are members of the founding family (e.g., founders & descendants) are positively associated with accounting profitability. Further, Miller & Le Breton-Miller (2006) posit that family CEOs relative to their competitors make fewer short sighted acquisition and downsizing decisions and have higher R&D, employee training, and capital expenditures. Thus, founding family CEOs have been argued to enable the firm to make strategic investments that support long-term value creation.

However, the measure of family CEO is too broad and requires further refinement. Family CEOs can be categorized as being either founder-CEOs or descendent-CEOs. Given their reputational and equity stakes in the firm, founder CEOs are likely to be industrious and demonstrate "a ready willingness to undertake risks and a high need for achievement…to generate and sustain superior performance over time" (Jayaraman, Kohorana, Nelling, & Covin, 2000, p. 1216). Further, founder CEOs possess the entrepreneurial ability that is extremely valuable to the firm (Morck, Schleifer, & Vishny, 1988). When the founder is the CEO, the performance of the firm is

higher relative to firms where the CEO is not the founder. In a longitudinal study of Fortune 500 firms from 1994-2000, Villalonga and Amit (2006) find that founding family ownership creates value for other shareholders when the founder is the CEO. Anderson & Reeb (2003) find that family firms with a founder CEOs had better accounting profitability and market performance. Fahlenbrach (2009) sought to explicate this valuation effect by examining the investment behavior of founder-CEO firms. In a sample of 2,327 large, publicly-listed US firms from 1992-2002, he found that founder-CEO firms compared to successor-CEO firms spent 22% more on R&D and up to 38% more on capital expenditures, and made more focused mergers and acquisitions. In addition, McConaughy and Phillips (1999) found that founder-controlled firms invested more in R&D and capital assets compared to descendant-controlled firms. Thus, founder CEOs focus on long-term value creation by taking a long-term investment approach in the management of the firm. This long-term approach is consistent with the use of a commitment HR system. Therefore,

> *Hypothesis 2: Founder CEO will moderate the relationship between founding family ownership and commitment HR systems, with the relationship being stronger when the founder is the CEO.*

On the other hand, descendent-CEOs do not provide the same benefits or use the same temporal approach in making strategic decisions as founder-CEOs. Villalonga & Amit (2006) found that founder-CEOs create value measured by *Tobin's q* for the firm; whereas, descendant-CEOs destroy value. In a sample of Fortune 1000 firms, Miller, et al. (2007) found that firms with relatives as managers do not outperform other firms with regards to market valuation. This may be attributed to the skills and abilities that

descendant-CEOs possess. According to Schulze, Lubatkin, & Dino (2003), family firms can be exposed to adverse selection (e.g., lack of ability) when filling senior management positions. Anderson and Reeb (2003b) note that "family members potentially place one of their own members in the CEO position at the cost of excluding more capable and talented outside, professional managers" (p. 1306). In an examination of CEO successions, Perez-Gonzalez (2006) finds that "nepotism hurts performance by limiting the scope of labor market competition" (p. 1559). Moreover, descendants must maintain and grow the business that has been passed on to them by the founder; however, the skill sets needed are possessed by professional managers, who are typically not members of the family (McConaughy & Phillips, 1999; Sonfield & Lussier, 2004). Thus, descendant CEOs may not possess the human capital needed to manage and continue to grow the firm for future generations.

This has implications for the type of strategic investments that descendant-CEOs make. Morck and Yeung (2003) posit that family firms are unwilling to invest in innovation because successive generations of the founding family possess less ability relative to previous generations. In a study of 246 publicly-traded Canadian firms, Morck, Strangeland, & Yeung (2000) found that heir-controlled firms (e.g., firms controlled by descendents of the founder) invest less in innovation as measured by R&D spending compared to benchmarked non-heir controlled firms. McConaughy and Phillips (1999) found that descendant-controlled firms do not grow as quickly and invest less in R&D and capital assets relative to founder-controlled firms. In an examination of family successions in publicly traded firms, Perez-Gonzalez (2006) finds that family heirs tend to be promoted to the position of CEO in firms with significantly lower R&D spending

relative to firms where unrelated CEOs are appointed. Yet, "they do not seem to engage in statistically significant differential increases in R&D activities upon succession" (Perez-Gonzalez, 2006, pg. 1584). Taken together, this suggests that descendent CEOs are less likely to take the steps necessary to make or enhance strategic investments that promote long-term value creation similar to long-term investments in human resources via commitment HR systems. Therefore,

> *Hypothesis 3: Descendent CEO will moderate the relationship between founding family ownership and commitment HR systems, with the relationship being stronger when the CEO position is not occupied by a descendent of the founder.*

Non-Founding Family Ownership and Commitment HR Systems

Non-family firms tend to be under greater pressure from shareholders and board members to produce near-term results which has implications for how the workforce is managed (James, 1999; Le Breton-Miller & Miller, 2006). Specifically, non-family firms appear to be less committed to its employees. For example, employee layoffs are more common in non-family firms relative to founding family firms (Lee, 2006; Stavrou, Kassinis, & Filotheou, 2007). Further, non-family firms tend to experience higher rates of turnover compared to founding family firms (Guzzo & Abbott, 1990; Allouche & Amann, 1997; Miller & Le Breton-Miller, 2003; Le Breton-Miller & Miller, 2006). Thus, non-family firms are less likely to commit to its workforce long-term through the use of commitment HR systems. Therefore,

> *Hypothesis 4: Non-founding family ownership is negatively associated with the use of commitment HR systems.*

Institutional Ownership Aggregation & Commitment HR Systems

Institutional investors can differ in their temporal orientation and seek to pressure portfolio firms to act in accordance with their preferred investment horizon (Zahra, 1996; Ryan & Schneider, 2002). Short-term oriented or "transient" institutional investors are less concerned with the long-term viability of the firm (Bushee, 1998; Bushee, 2001). These institutional investors are identified as having high portfolio turnover and diversification and make extensive use of momentum strategies (Bushee, 1998). "Transient" institutional investors are likely to use "exit" as opposed to "voice" in dealing with underperforming firms (Hirschman, 1970; Bushee, 1998). In addition, "transient" investors such as mutual funds have a high liquidity requirement for beneficiaries as their shares can be redeemed at any time (Hoskisson, et al., 2002; Ryan & Schneider, 2002). Research has shown that "transient" or short-term oriented institutional investors focus the firm on making investments that yield immediate returns and have more certain outcomes as opposed to long-term, risky investments. For example, Hoskisson and colleagues (2002) find that mutual funds are more positively related with external innovation through acquisitions than pension funds. Zahra (1996) found that short-term institutional ownership was negatively related to corporate innovation and venturing. Moreover, short-term oriented institutional investors have been found to pressure managers to cut spending in long-term investments. Bushee (1998) found that a high proportion of "transient" institutional investors are positively related with the likelihood of a firm cutting R&D expenditures to meet short-term earnings goals. Taken together, short-term institutional investors are unlikely to

influence the firm to pursue long-term investments that contain a high degree of risk and uncertainty. Moreover, Harrell-Cook and Ferris (1997) contend that pressure from shareholders concerned with near-term financial performance will cause the firm to under-invest in human resources which is inconsistent with the use of a commitment HR system. Thus, it is likely that "transient" institutional investors will not be associated with the use of commitment HR systems. Therefore,

Hypothesis 5: High levels of "transient" or short-term oriented institutional ownership are negatively associated with the use of commitment HR systems.

On the other hand, "dedicated" or long-term oriented institutional investors such as pension funds are concerned with the long-term viability of the firm (Bushee, 1998). These institutional investors can be identified as having low portfolio turnover, high concentration, and minimum trading sensitivity to current earnings (Bushee, 1998). Moreover, "dedicated" institutional investors do not have a high liquidity requirement as beneficiary payouts are predictable and extend over the long-term (Hoskisson, et al., 2002; Ryan & Schneider, 2002). This enables these institutional investors to take a long-term investment horizon. Research has shown that institutional investors with a long-term orientation focus the firm on developing resources internally in such areas as R&D. According to Hoskisson, et al. (2002), pension fund ownership is positively related to internal innovation. Zahra (1996) found that long-term institutional ownership was positively associated with corporate innovation and venturing. Further, Ryan & Schneider (2002) argued that institutional investors with a long-term investment horizon

are more likely to engage in activism relative to those with a shorter-term horizon. This makes them more sophisticated investors when it comes to understanding the quality of the firm's long-term strategic investments (Bushee, 1998). David, Hitt, and Gimeno (2001) found that activism by institutional investors is associated with greater R&D expenditures. These findings provide evidence that "dedicated" institutional investors are associated with the firm making resource investments that have long-term payoffs, but are inherently risky. Further, 'dedicated' or long-term oriented institutional investors provide the firm with patient capital enabling firms to better commit long-term to its employees (Smith, Pfeffer, & Rousseau, 2000; Post, Preston, & Sachs, 2002). Thus, it is likely that "dedicated" institutional investors will be associated with the use of commitment HR systems. Therefore,

> *Hypothesis 6: High levels of "dedicated" or long-term oriented institutional ownership are positively associated with the use of commitment HR systems.*

Institutional Ownership Concentration & Commitment HR Systems

Although research has shown that high aggregate levels of institutional ownership is associated with long-term strategic investments in such areas as R&D and corporate innovation (e.g., Zahara, 1996; Bushee, 1998; Hoskisson, et al., 2002), scholars have noted that high levels of aggregate institutional ownership, in itself, may not be enough to ensure that active monitoring of firms by institutional investors is taking place (e.g., Shleifer & Vishny, 1986; David & Kochhar, 1996; Ryan & Schneider, 2002). There are three reasons as to why this may occur. Legal regulations such as the Investment

Company Act of 1940 and Employee Retirement Income Security Act of 1974 placed limits on the size of holdings by institutional investors in individual firms causing institutional ownership to be highly fragmented (Roe, 1990; Bhide, 1994; David & Kochhar, 1996). For example, 62% of IBM's outstanding common stock was held by institutional investors as of May 13, 2009; however, this was spread across 1456 institutions (Yahoo Finance, 2009). Further, regulatory barriers can restrict coordination among institutional investors attempting to influence the strategic decision making of the firm (Roe, 1990; David & Kochhar, 1996). Finally, the likelihood of free riders makes investments in monitoring less attractive as individual institutional investors "bear the entire cost of their personal monitoring but share the benefits in proportion to their percentage of ownership" (Hoskisson & Turk, 1990, p. 464). Thus, legal regulations and the likelihood of free-riders may hinder institutional investors from actively engaging in monitoring.

Institutional investors with concentrated holdings or large equity stakes in the firm have the motivation to engage in active monitoring (Shleifer & Vishny, 1986). Given their high equity stakes, the alternative "exit" can result in a reduction of stock price leading to a decline in value of their financial investment (Coffee, 1991). Thus, monitoring for these investors is beneficial relative to its costs (Gillan & Starks, 2000). Research has shown that institutional ownership concentration can be particularly effective in monitoring the behaviors of the firm (e.g., Hansen & Hill, 1991; Hartzell & Starks, 2003).

Although transient institutional investors are more likely to use the threat of "exit" when dealing with portfolio firms (Hirschman, 1970; Porter, 1992; Bushee, 1998), this

course of action may not be beneficial when transient institutional investors hold large equity stakes in a firm given the negative impact that "exit" can have on their financial investment (Coffee, 1991). Some scholars disagree whether transient institutional investors use "voice" when they have large equity holdings. According to Chen, Harford, and Li (2007), grey or short-term institutional investors with concentrated ownership do not engage in active monitoring. However, they capture both grey and short-term institutional investors in a single measure when examining monitoring on the basis of acquisition decisions. Grey institutional investors are considered pressure-sensitive institutions (Brickley & Smith, 1998) such as banks and insurance companies that tend to not engage in active monitoring given their extensive dealings with portfolio firms beyond holding an equity stake. Thus, including grey and short-term institutions in the same measure makes it difficult to determine whether short-term institutional investors actually engage in monitoring. In contrast, Burns, Kedia, and Lipson (2010) in their study of financial misreporting measured transient institutional investors exclusively with respect to monitoring. They found that transient institutional investors may engage in increased levels of monitoring when their ownership is concentrated. While the evidence is not extensive, it suggests that transient institutional investors may monitor when ownership stakes are high. Given that high aggregate levels of transient institutional ownership have been associated with firms not making long-term strategic investments in areas such as internal innovation (e.g., Bushee, 1998; Hoskisson, et al., 2002), it is likely that transient institutional investors with concentrated holdings will not be associated with the use of commitment HR systems. Therefore,

Hypothesis 7: "Transient" or short-term institutional ownership concentration will be negatively associated with the use of commitment HR systems.

Dedicated institutional owners have a greater propensity to exercise "voice" relative to transient institutional investors when dealing with portfolio firms (Hirschman, 1970; Ryan & Schneider, 2002). However, they are more inclined to do so the larger their equity stakes. In an examination of acquisition decisions, Chen, Harford, & Li (2007) found that independent, long-term institutions with large ownership stakes actively engage in monitoring and influencing activities. Although the evidence is not extensive, it suggests that dedicated institutional investors are more inclined to engage in active monitoring when they have concentrated holdings. Given that high aggregate levels of dedicated institutional ownership have been associated with firms making long-term strategic investments in areas such as internal innovation (e.g., Zahara, 1996; Hoskisson, et al., 2002), it is likely that dedicated institutional investors with concentrated holdings is related to the use of commitment HR systems given their enhanced motivation to engage in monitoring. Therefore,

Hypothesis 8: "Dedicated" or long-term institutional ownership concentration will be positively associated with the use of commitment HR systems.

Institutional Ownership Dispersion & Commitment HR Systems

Although ownership dispersion leads to weaker monitoring by institutional investors (Hoskisson and Turk, 1990; Tosi and Gomez-Mejia, 1994; Khan, Dharwadkar, & Brandes, 2005), transient institutional investors are more prone to "exit" as opposed to "voice" when dealing with portfolio firms (Hirschman, 1970; Porter, 1992; Bushee, 1998). The use of exit by institutional investors can have an influential effect on the firm. In their study of forced CEO turnover, Parrino, Sias & Starks (2003) found that institutional investors by "voting with their feet" can force the removal of CEOs. Further, transient or short-term institutions tend to be well informed investors that make very calculated decisions (Yan & Zhang, 2009). For example, Ke and Petroni (2004) found that transient institutional investors tend to sell their shares in advance of "a break in a string of consecutive increases in quarterly earnings" (pg. 895). Taken together, the threat of exit presented by transient institutional investors can likely have an influential effect on the strategic decision making of the firm. Moreover, increased transient institutional ownership dispersion serves to increase the number of investors that are likely to "vote with their feet" when displeased with the activities of the portfolio firm. Given that transient institutional investors are more concerned with near-term earnings and have less tolerance for long-term, risky investments (e.g., Bushee 1998; Bushee, 2001; Hoskisson, 2002), it is likely that greater transient institutional ownership dispersion will not be associated with the use of commitment HR systems. Therefore,

Hypothesis 9: "Transient" or short-term institutional ownership dispersion will be negatively associated with the use of commitment HR systems.

The dispersion of dedicated institutional investors can lead to reduced monitoring given the increased likelihood of free riders (Hoskission & Turk, 1990). Weaker monitoring by dedicated institutional investors can lead to increased managerial discretion (Berle & Means, 1932; Khan, Dharwadkar, & Brandes, 2005). As such, managers will have the freedom to pursue strategic actions in accordance with their interests and risk preferences. According to agency theory, managers are more risk averse than shareholders (Eisenhardt, 1989) primarily because they are unable to diversify their employment risk (Gomez-Mejia, 1994). This risk aversion makes it likely that managers will avoid long-term investment in such areas as R&D that will increases the firm's riskiness (Hall, 2002). Further, weak monitoring by dedicated institutional investors enables transient institutional investors to more effectively pressure managers using the threat of "exit" into making myopic investment decisions such as cutting R&D expenditures to meet near-term earnings targets (Porter, 1992; Bushee, 1998). Finally, weak monitoring by dedicated institutional owners has implications for the nature of the relationship between the firm and its employees. Rousseau and Schalk (2000) suggest that firms lacking in long-term concentrated ownership likely have employment relationships that are transactional. Transactional employment relationships, as discussed previously, are merely economic exchanges that are short-term and do not engender employee commitment (Tsui, et al, 1995). Thus, dedicated institutional ownership dispersion make it less likely that a firm will use a commitment HR system given the tendency for firms to make myopic strategic decisions absent long-term institutions with concentrated holdings. Therefore,

Hypothesis 10: "Dedicated" or long-term institutional ownership dispersion will be negatively associated with the use of commitment HR systems.

Joint Effects of Long-Term and Short-Term Shareholders

This final set of hypotheses explores the joint effects of different long-term shareholders (e.g., founding family owners and dedicated institutional investors) as well as different short-term shareholders (e.g., non-founding family owners and transient institutional investors) on the firm's use of commitment HR systems. It is expected that the interaction between founding family ownership and dedicated institutional ownership aggregation or concentration will augment the firm's use of commitment HR systems given their collective concern for the long-term viability of the firm, whereas the interaction between non-founding family ownership and transient institutional ownership aggregation or concentration will result in little to no use of commitment HR systems given their shared focus on near-term earnings. However, if founding family ownership and dedicated institutional ownership dispersion are both high, the influence of long-term shareholders on the firm's use of commitment HR systems will likely be diminished as the threat of exit by short-term institutional investors is enhanced. Conversely, if non-founding family ownership and transient institutional ownership dispersion are high, the influence of large, short-term shareholders on the firm's use of commitment HR systems is enhanced given the increased presence of large, short-term shareholders as apart of the firm's ownership structure. Therefore,

Hypothesis 11a: Founding family ownership interacts positively with dedicated institutional ownership aggregation and concentration with regards to commitment HR systems.

Hypothesis 11b: Founding family ownership interacts negatively with dedicated institutional ownership dispersion with regards to commitment HR systems.

Hypothesis 11c: Non-founding family ownership interacts negatively with transient institutional ownership aggregation and concentration with regards to commitment HR systems.

Hypothesis 11d: Non-founding family ownership interacts negatively with transient institutional ownership dispersion with regards to commitment HR systems.

CHAPTER 4: DATA AND METHODS

A two study approach was established a priori to examine these hypotheses. For Study 1, the data for commitment HR systems is collected via a questionnaire using HR measures from prior SHRM studies with the remaining independent and control variables being obtained from secondary sources. A cross-section research design is appropriate for Study 1 given the nature of the data collection process which requires multiple respondents per firm. Given the challenges associated with securing completed questionnaires from multiple respondents per firm, a second study was conducted. Study 2 employs a longitudinal research design using an archival and objective proxy for commitment HR systems with the remaining independent and control variables being collected via secondary sources similar to Study 1. Details with respect to the sample and methodology for both Study 1 and Study 2 are described within this chapter.

Study 1

Study 1 is a cross-sectional study with the dependent variables, high performance work practices and commitment-based HR practices, being captured via a questionnaire and the independent and control variables being obtained from the WRDS databases (e.g., COMPUSTAT and Thomson Financial), proxy statements, and corporate websites. High performance work practices and commitment-based HR practices were measured using questionnaire items from Datta, Guthrie, and Wright (2005) and Collins and Smith (2006), respectively. The questionnaire was mailed to the chief HR officer of 1009 publicly-traded US firms in the manufacturing (i.e., two digit SIC code 20-39 as used by Datta, Guthrie, & Wright, 2005) and high technology sectors (i.e., codes 357, 365, 366,

367, 381, 382, 384, 386, 481, 482, 484, 489, and 737 as suggested by Li, Eden, Hitt, & Ireland, 2008). These firms had at least 100 employees, $50 million in revenues, and were headquartered in the Northeast, states where the Big East Conference had member schools, and California. Following prior studies (e.g., Datta, Guthrie, & Wright, 2005), the names and corporate addresses of the chief HR officers were obtained from (1) the Directory of Corporate Affiliations; (2) Plunkett Research Online; and (3) corporate websites.

The data collection process consisted of three stages. First, a pre-notification postcard was sent directly to the chief HR officers that described the study and requested their participation. Second, the questionnaire with cover letter was sent two (2) weeks later. Upon request, participating firms were promised an executive summary of the study's findings including a comparison of their firm to the other sample firms in aggregate. Third, a reminder post-card was sent two (2) weeks after the cover letter and questionnaire to encourage participation by non-respondents as follow-up mailings are associated with higher survey response rates (Dillman, 1991). (See Appendix for questionnaire and postcard layouts)

According to Becker and Huselid (1998), empirical studies of commitment HR systems had a response rate with an average of 17.4 percent with a range from 6 to 28 percent. Unfortunately, the response rate for this questionnaire was less than 1% (n=10). Given that non-response error can render biased questionnaire results (Dillman, 1991), no findings are reported for Study 1.

Study 2

SHRM studies have traditionally relied on the self-completed survey as a means of data collection; however, this approach has become more and more challenging for SHRM researchers. According to Guest (2001), senior HR executives "are reluctant to complete them, raising questions about response rates, sample bias and uncertainty about whether the questionnaire has been completed by the target person" (p. 1104). Further, scholars have advocated for the use of multiple respondents per firm as a part of survey research designs as the use of single survey respondents can lead to measurement error (e.g., Gerhart, Wright, McMahan, & Snell, 2000); however, the response rates for these studies tend to be extremely low (Becker & Huselid, 2006). In addition, Datta, et al. (2005) point out that obtaining multiple survey responses per firm is indeed challenging. Given the low response rates in SHRM studies with this research design, statistical analyses are typically conducted on measures from single respondents (Becker & Huselid, 2006).

To counter some of the challenges associated with survey research designs that use multiple respondents per firm, a second study is conducted that does not use a survey methodology. According to Wright, Gardner, Moynihan, Park, Gerhart, and Delery (2001), the field of SHRM should consider alternative methods for data collection and "not solely limit itself to survey designs" (p. 898). SHRM scholars (e.g., Becker & Gerhart, 1996; Gerhart, Wright, McMahan, & Snell, 2000; Wright, Gardner, & Moynihan, 2003) have advocated for more longitudinal studies in the field given the need to establish causality; however, longitudinal data of HR systems based on surveys can be extremely costly (Huselid, 1995). Further, Guest (2001) posits that "we need

longitudinal studies with independent measures of inputs and outcomes and preferably 'objective' measures of both" (p. 1102). Therefore, Study 2 employs a longitudinal research design that uses objective and archival measures for all the variables including the HR variables.

Sample

The sample was drawn from S&P 500 firms for the 2001-2005 time periods. Multiple secondary sources were used to collect data on the dependent, independent, and control variables. First, the human resource management data was collected from the Kinder, Lydenberg, & Domini (KLD) database for the 2001-2005 time periods. Second, the Thomson Financial CDA/Spectrum Institutional (13f) database provided information on institutional ownership data. Third, financial data was collected from the Compustat database. Fourth, founding family ownership and control data was obtained from the proxy statements and corporate histories of the sample firms to identify whether founding family members owned equity in the firm and to ascertain their level of involvement in the management of the firm. Missing data from the different datasets brought the sample to 1,813 firm-year observations for the analyses that focused solely on founding family ownership. The sample size for the analyses conducted using institutional investors came to 1,725 firm-year observations.

Measurement

A brief summary of the measures for all dependent, independent, and control variables can be found in Table 1 *(See Appendix A)*.

Dependent Variables

Commitment HR systems were captured using two different variables: (1) employee involvement HR practices; and (2) high performance HR practices. These variables were captured using human resource management data obtained from the KLD database. KLD measures are determined by "a single group of researchers, working independently from the rated companies or any particular brokerage house" (Waddock & Graves, 1997, p. 307). Specifically, the ratings for all S&P 500 firms are determined using data from sources both internal and external to the firm. According to Waddock and Graves (1997), the investor relations office of each firm completes an annual questionnaire about its corporate social responsibility practices. In addition to these survey results, KLD staffers use corporate data sources (e.g., annual reports, proxy statements, 10K forms, etc.) and external data sources such as articles in the general business press, trade magazines, newsletters, academic journals, and external surveys and ratings like the "100 Best Companies for Women to Work for" by *Working Mother Magazine.*

The first variable, *employee involvement HR practices*, is a dummy variable based on the item, "The company strongly encourages worker involvement and/or ownership through stock options available to a majority of its employees; gain sharing, stock ownership, sharing of financial information, or participation in management decision-making". This variable closely mirrors the definition of high involvement approach to workforce management put forth by Lawler (1988). According to Lawler (1988), the key HR practices associated with this approach are employee participation in organizational decision making, information sharing, and rewards based on organizational performance

such as gain sharing, profit sharing, or some form of employee ownership. Moreover, inherent in the use of these practices is a substantial investment in both training and selection (Lawler, 1988). The employee involvement HR practices variable is coded one (1) if the firm has these practices, otherwise zero (0).

The second variable, *high performance HR practices,* is an additive index that includes cash profit sharing, sufficient retirement benefits, and work life benefits as well as employee involvement HR practices. According to Lepak, Laio, Chung, & Harden (2006), these underlying HR components are typically associated with High Performance Work Systems (HPWS) which "emphasize the potential competitive advantages that might be realized by employees" (pg. 228). Although HPWS tend to be broader in scope, it is inclusive of elements of HR systems geared towards employee involvement and empowerment (Zacharatos, Barling, & Iverson, 2005; Lepak, Laio, Chung, & Harden, 2006). Although certain HR practices such as performance appraisals are not captured as part of these measures, SHRM scholars (e.g., Godard, 2001; Guest, 2001; Iverson & Zatzick, 2007) have noted that this is common for HR studies that use archival data. The underlying components of high performance HR practices were obtained from the KLD database and are dummy coded one (1) if the item is representative of the firm, otherwise zero (0). Cash profit sharing is based on the item, "The company has a cash profit-sharing program through which it has recently made distributions to a majority of its workforce." Sufficient retirement benefits are reverse coded based on the item, "The company has either a substantially underfunded defined benefit pension plan, or an inadequate retirement benefits program." Work life benefits are captured by the item, "The company has outstanding employee benefits or other programs addressing work/life

concerns, e.g., childcare, elder care, or flextime." Finally, the measurement of employee involvement HR practices is the same as previously discussed.

Independent and Moderating Variables

Founding family ownership is measured in two ways. Following Anderson and Reeb (2003), it is measured as *founding family firms* and is dummy coded one (1) if founding family members hold shares in the firm or when founding family members are present on the board of directors and zero (0) otherwise. Consistent with Villalonga and Amit (2006), it is measured as *founding family ownership stake* and is calculated as the ratio of the number of shares of held by the founding family including family representatives (e.g., cotrustees) to total shares outstanding. To help ensure accuracy, I used the list of S&P 500 family companies identified by Dr. Ronald Anderson and Dr. David Reeb (Business Week, 2003) to expand and verify both my measures of founding family ownership.

Non-founding family ownership is measured as the ratio of the number of shares not held by the founding family including family representatives to total shares outstanding.

Founder-CEO is a binary variable that equals one (1) if the CEO is the founder of the firm, otherwise it equals zero (0); and *descendant-CEO* is a binary variable that equals one (1) if the CEO is a founder's descendent, otherwise it equals zero (0). This is consistent with previous studies (e.g., Anderson & Reeb, 2003; Villalonga & Amit, 2006).

Transient institutional ownership aggregation and *dedicated institutional ownership aggregation* are measured in accordance with Bushee (1998) as the percentage of equity owned by each group of institutional investor (e.g., transient or dedicated) divided by the total common shares outstanding. Institutional investors are identified on the basis of portfolio diversification and degree of portfolio turnover (Bushee, 1998). Portfolio diversification is captured using four measures: portfolio concentration, average percentage holding, percent held in large blocks, and Herfindahl measure of concentration (Bushee, 1998). First, portfolio concentration is the average percentage of total equity holdings of the institutional investor in each portfolio firm. Second, the average percentage holding is the average size of the ownership position of an institutional investor in its portfolio of firms. Third, percent held in large blocks is the proportion of the institutional investor's equity that is invested in portfolio firms where it has more than a 5 percent stake. Fourth, the Herfindahl measure of concentration is calculated as the square of the percentage ownership in each portfolio firm.

The degree of portfolio turnover is calculated using two measures: portfolio turnover and stability of holdings (Bushee, 1998). First, portfolio turnover is the average absolute change in the ownership position of an institutional investor over the period of a quarter. Second, the stability of holdings is the proportion of an institutional investor's total equity holdings in a portfolio firm that has been over two consecutive years.

Finally, factor and cluster analyses are used to categorize institutional investors into either transient or dedicated groups based on these measures of portfolio diversification and degree of portfolio turnover (Bushee, 1998). The classification

schemes used for this study were obtained from the website of Dr. Brian Bushee (http://acct3.wharton.upenn.edu/faculty/bushee/).

Both transient institutional ownership concentration and dedicated institutional ownership concentration are measured in the same two ways. First, they are measured as *transient institutional blockholders* and *dedicated institutional blockholders*, respectively, which is the number of institutional investors by group (e.g., transient or dedicated) that controlled 5% or more of the firm's outstanding common stock. This measure have been modified based on previous studies (e.g., Bethel, Liebeskind, & Opler, 1998; Khan, Dharwadkar, & Brandes, 2005) to capture specifically dedicated and transient institutions as opposed to institutions in general. Second, they are measured as *transient institutional Top 5 holdings* and *dedicated institutional Top 5 holdings*, respectively, which is the aggregated holdings of institutional investors by group (e.g., transient or dedicated) among the top five institutional investors similar to Chen, Harford, and Li (2007).

Both transient institutional ownership dispersion and dedicated institutional ownership dispersion are measured in the same two ways. First, they are measured as *transient institutional count* and *dedicated institutional count*, respectively, which is the total number of institutional investors by group (e.g., transient or dedicated) in the institutional ownership structure. Second, it is measured as *no transient institutional blockholders* and *no dedicated institutional blockholders*, respectively, which are dummy variables that equals one (1) if no institutional investors by group (e.g., transient or dedicated) controlled 5% or more of the firm's outstanding common stock, otherwise it equals zero (0). These measures have been modified based on previous studies (DeFond

& Jiambalvo, 1991; Khan, Dharwadkar, & Brandes, 2005) to capture specifically transient or dedicated institutional investors as opposed to institutions in general.

Control Variables

Based on prior research, firm-level and industry-level variables were controlled for in conducting statistical analyses *(see Table 1)*. Firm size, R&D intensity, firm sales growth, liquidity, leverage, capital intensity, firm performance, firm diversification, governance index, and union relations comprise the firm-level control variables. *Firm size* is likely related to the use of "sophisticated" human resource management systems or practices (Datta, Guthrie, & Wright, 2005; Guthrie, 2001; Jackson & Schuler, 1995). Size is measured as the natural logarithm of total number of employees in the firm (e.g., Lepak & Snell, 2002; Huselid, 1995).

The ability of firms to make long-term strategic investments can depend on the availability of slack resources (Zahara, 1996). According to Bourgeois and Singh (1983), slack resources can be classified as available, potential, and recoverable. The *liquidity ratio* provides an indication of available slack and was measured by the ratio of current assets to current liabilities. Potential slack was captured by the *leverage ratio* as firms that are highly leveraged have limited resources to invest in long-term strategic investments (e.g., Zahara, 1996). Leverage is calculated by the ratio of long-term debt to total assets (e.g., Anderson & Reeb, 2003). Finally, excessive amounts of recoverable slack can limit the firm's ability to make additional strategic investments (Wiseman & Bromiley, 1996). Further, it can be associated with the use of commitment HR systems such as High Performance Works Systems (Huselid, 1995). Thus, R&D intensity was

used to capture recoverable slack and is measured as the ratio of research and development expenditures to total sales (e.g., Huselid, 1995).

Given its association with human resource systems (e.g., Huselid, 1995), *firm sales growth* was controlled for and calculated as the average growth in firm sales over a three-year period (Datta, Guthrie, & Wright, 2005).

Capital intensity was controlled for because "capital and assets are often used to replace or leverage labor" (Koch & McGrath, 1996, pg. 345). Thus, capital intensity can influence a firm's human resource management practices. Following Bhattacharya, Gibson, and Doty (2005), capital intensity was measured as the ratio of property, plant, and equipment to total assets.

Firm performance can influence long-term strategic investments (Chaney & Devinney, 1992; Hoskisson, Hitt, Johnson, & Grossman, 2002) and was measured using *return on assets* (ROA) and *return on equity* (ROE). ROA is net income divided by total assets (e.g. Anderson & Reeb, 2003). ROE is measured as net income divided by total shareholders' equity (e.g., Hoskisson, Hitt, Johnson, & Grossman, 2002).

Firm diversification was included as a control because it may be associated with the use of certain human resource management controls or practices (Rowe & Wright, 1997). Following Villalonga and Amit (2006), diversification is a dummy variable coded one (1) if the firm has two or more segments and zero (0) otherwise.

A firm's governance provisions can limit the actions shareholders take against the firm by making it difficult for shareholders to influence strategic firm decisions (Gompers, Ishii, Metrick, 2003). Thus, the *governance index* was controlled for and is based on 24 governance rules that capture the balance of power between managers and

shareholders (Gompers, Ishii, Metrick, 2003). For every rule that restricts shareholder rights (e.g., staggered boards), a point is added to the governance index (Gompers, Ishii, Metrick, 2003). Therefore, the higher the firm's governance index, the higher the power of the managers; and likewise, the lower the firm's governance index score the higher the power of shareholders.

Unions can influence the human resource management practices of the firm (Freeman & Medoff, 1984; Jackson & Schuler, 1995). While prior SHRM studies have focused on the degree of union representation (e.g., Huselid, 1995; Guthrie 2001), scholars have advocated for more of an emphasis on union-management relations given the changing role of unions over the past few decades (Cutcher-Gershenfeld, 1991; Jackson & Schuler, 1995). Thus, *union relations* was controlled for as a dummy variable from the KLD database that equals one (1) if the firm "has taken exceptional steps to treat its unionized workforce fairly" and zero (0) otherwise.

Industry characteristics can affect the human resource management practices of the firm (Jackson & Schuler, 1995). Based on Datta, Guthrie, and Wright (2005), industry capital intensity and industry product differentiation were the two industry-level variables controlled for. *Industry capital intensity* was measured as the three-year average ratio of fixed assets to sales for firms in each industry defined at the four-digit SIC level (Datta, Guthrie, & Wright, 2005). *Industry product differentiation* was the three-year average ratio of R&D expenditures to total sales for all firms belonging to the sample firm's four-digit SIC level (Datta, Guthrie, & Wright, 2005).

CHAPTER 5: ANALYSIS AND RESULTS

Table 2 provides the means, medians, standard deviations, minimum and maximum values, and correlations for all of the variables. For the dependent variables, employee involvement HR practices are strongly encouraged in 23.5 percent of the firms sampled. The mean and standard deviation for high performance HR practices are 1.342 and 0.902. With regards to the remaining underlying HR practices associated with high performance HR practices, 14.9 percent of the sample firms have a cash profit sharing program. Sufficient retirement benefits were represented in 74.1 percent of the sample. Finally, approximately 21.5 percent of the firms represented provide work life benefits for its employees.

With respect to the independent and moderating variables, founding family firms represented approximately 37.21 percent of the sample, and the position of CEO was occupied by the founder or a descendent of the founder in 10.23 and 5.74 percent of the firms, respectively. Further, founding families owned an estimated 3.46 percent of common shares outstanding with a standard deviation of 8.51. With regards to institutional investors, the mean and standard deviation for total aggregate ownership by transient institutions is 13.87 percent of common shares outstanding and 6.95; whereas, dedicated institutions held in aggregate an estimated 10.49 percent with a standard deviation of 6.74. Transient and dedicated blockholders have a mean of 0.17 (s.d. =0.42) and 0.67 (s.d. =0.74), respectively. Among the top five institutional investors, the mean total holdings are 2.33 percent (s.d. =3.61) for transient institutions and 7.89 percent (s.d. =6.65) for dedicated institutions. The mean number of transient institutions is 112.09 with a standard deviation of 47.94, whereas the number of dedicated institutions is 10.46

with a standard deviation of 4.44. Finally, transient and dedicated blockholders were not present in 85.29 percent and 48.06 percent of all sample firms, respectively.

According to the correlation matrix in Table 3, the commitment HR systems variables are significantly correlated with a number of the independent and moderating variables. With regards to the founding family ownership variables, employee involvement HR practices is positively and significantly correlated with founding family firm (0.0657, $p<.01$) and founder CEO (0.0404, $p<.05$) and negatively and significantly correlated with founding family ownership stake (-0.0459, $p<.05$). In addition, employee involvement HR practices is positively and significantly correlated with transient institutional count (0.1926, $p<.01$), dedicated institutional count (0.1450, $p<.01$), and no dedicated institutional blockholders (0.0634, $p<.01$). Conversely, employee involvement HR practices is negatively and significantly correlated with dedicated institutional aggregate ownership (-0.0432, $p<.05$), transient institutional blockholders (-0.0465, $p<.05$), and dedicated institutional blockholders (-0.0663, $p<.01$).

High performance HR practices are negatively and significantly correlated with transient institutional ownership aggregation (-0.1038, $p<.01$), dedicated institutional ownership aggregation (-0.0969, $p<.01$), transient institutional blockholders (-0.0712, $p<.01$), dedicated institutional blockholders (-0.1169, $p<.01$), transient institutional top 5 holdings (-0.0583, $p<.01$), and dedicated institutional top 5 holdings (-0.0994, $p<.01$). In addition, high performance HR practices are positively and significantly correlated with transient institutional count (0.2729, $p<.01$), dedicated institutional count (0.2865, $p<.01$), no transient institutional blockholders (0.0710, $p<.01$), and no dedicated institutional blockholders (0.0922, $p<.01$).

Analyses

Statistical analyses were conducted using cross-sectional time-series regression for the models with high performance HR practices and cross-sectional time-series logistic regression for the models with employee involvement HR practices. Cross-sectional time-series analyses allow for the analysis of unbalanced panel data by producing robust parameter estimates which is important given that some firms may not continuously appear on the S&P 500 list during the 2001-2005 timeframe. Further, these methods correct the standard errors of the estimates to take into account repeated measures for each firm (Maume, 2004).

Random effects models were chosen a priori for this study over fixed effects for two key reasons (Seddighi, Lawler, & Katos, 2000). First, fixed effects are inappropriate when the number of cross-sectional units is large which "may sap the model of sufficient number of degrees of freedom for adequately powerful statistical tests" (Yaffee, 2003, p. 6). Given that the number of cross-sectional units for this study is 500, fixed effects appear to be inefficient. Conversely, random effects save degrees of freedom. Second, the inferences for this study will be made beyond just the values of the independent variables or, in other words, the results will be generalized to a larger population making random effects appropriate; whereas, fixed effects is suitable in making inferences about just the observed units (Hsaio, 1986; Beck 2001). Nevertheless, the Hausman test was conducted to enable a more scientific determination as to whether fixed or random effects models were the most efficient (Hausman, 1978). Based on this test, random effects models were supported for those regression models where employee involvement HR practices is the dependent variable. However, fixed effects models were identified as

being more efficient for the regression models with high performance HR practices and were, therefore, used.

Finally, tests of regression assumptions were conducted and violations were dealt with. To address multicollinearity issues, the continuous variables used to create the interaction terms were mean centered, whereas the dichotomous variables were re-coded as -1 and 1 (Aiken & West, 1991). After doing this, all variance inflation factors (VIF) for all regression models were below the standard cutoff of 10 (Belsley, Kuh, & Welsch, 1980). Outliers were identified using the Belsley-Kuh-Welsch test which examines the leverage (hat) matrix, studentized deleted residuals, standardized Dfit values, and the covariance ratio of each data point. Data points that violated all four criteria were considered outliers and merited closer examination. Specifically, a comparison of the regression models with and without the outliers was done. If the coefficients and statistical significance were substantially different in the model after the outliers were removed, then those outliers were considered influential and therefore excluded from the model (Belsley, Kuh, & Welsch, 1980). To address heteroskedasticity and autocorrelation issues, the regression models with the dependent variable of high performance HR practices were run using clustered standard errors in order to produce consistent standard errors (Froot, 1989; Rogers, 1993; Hoechle, 2007).

Results

Tables 3 and 4 provide a detailed look at the results (See Appendix). Hypothesis 1 postulates that founding family ownership is positively associated with the use of commitment HR systems. This hypothesis was partially supported. Founding family firm is positively associated with the likelihood of a firm having employee involvement

HR practices (β= 1.868, p<.01, model 2). However, it was not statistically related to high performance HR practices. On the other hand, founding family ownership stake is positively related to high performance HR practices (β= 0.017, p<.05, model 2). Contrary to what was initially hypothesized, founding family ownership stake is negatively associated with the likelihood of the firm having employee involvement HR practices (β= -0.119, p<.05, model 2).

Hypothesis 2 states that the founder CEO will moderate the relationship between founding family ownership and commitment HR systems, with the relationship being stronger when the founder is the CEO. Due to collinearity issues between the measures of founder CEO and family firm, this hypothesis was tested using founding family ownership stake only. This hypothesis was not supported for any of the commitment HR system variables.

Hypothesis 3 postulates that the descendent CEO will moderate the relationship between founding family ownership and commitment HR systems, with the relationship being stronger when the CEO position is not occupied by a descendent of the founder. Similar to Hypothesis 2, this hypothesis was examined using founding family ownership stake only. This hypothesis was not supported for any of the commitment HR system variables.

Hypothesis 4 states that non-founding family ownership is negatively associated with the use of commitment HR systems. This hypothesis was partially supported. Non-founding family ownership is negatively related to the use of high performance HR practices (β= -0.017, p<.05, model 5). Contrary to what was expected, non-founding

family ownership is positively associated with the likelihood of the firm having employee involvement HR practices (β= 0.119, p<.05, model 6).

Hypothesis 5 states that high levels of transient or short-term oriented institutional ownership are negatively associated with the use of commitment HR systems. Overall, the results indicate that this hypothesis is partially supported. Specifically, transient institutional ownership aggregation is negatively associated with the likelihood of a firm having employee involvement HR practices (β= -0.049, p<.10, model 8). In addition, transient institutional ownership aggregation is not significantly associated with high performance HR practices.

Hypothesis 6 postulates that high levels of dedicated or long-term oriented institutional ownership are positively associated with the use of commitment HR systems. This hypothesis was not supported for any of the commitment HR systems variables.

Hypothesis 7 posits that transient or short-term institutional ownership concentration will be negatively associated with the use of commitment HR systems. This hypothesis is partially supported for both measures of transient institutional ownership concentration. Transient institutional blockholders are negatively related to the use of high performance HR practices (β= -0.076, p<.10, model 9), although marginally significant, and negatively associated with the likelihood of the firm having employee involvement HR practices (β= -1.744, p<.01, model 11).

Transient institutional top five holdings are negatively associated with the likelihood of the firm having employee involvement HR practices (β= -0.142, p<.01, model 14). However, it is not significantly related to high performance HR practices.

Hypothesis 8 states that dedicated or long-term institutional ownership concentration will be positively associated with the use of commitment HR systems. This hypothesis was not supported for any of the commitment HR system variables.

Hypothesis 9 states that transient or short-term institutional ownership dispersion will be negatively associated with the use of commitment HR systems. This hypothesis is partially supported. Transient institutional count is negatively related to the use of high performance HR practices (β= -0.003, p<.05, model 15). It is not significantly related to employee involvement HR practices.

Contrary to what was hypothesized, the no transient institutional blockholders measure is positively related to use of high performance HR practices (β= 0.086, p<.10, model 15), although marginally significant, and positively associated with the likelihood of the firm having employee involvement HR practices (β= 1.865, p<.001, model 17).

Hypothesis 10 postulates that dedicated or long-term institutional ownership dispersion will be negatively associated with the use of commitment HR systems. This hypothesis was not supported for any of the commitment HR system variables. Dedicated institutional count was not significantly related to employee involvement HR practices. Contrary to what was hypothesized, dedicated institutional count was positively related to high performance HR practices (β= 0.023, p<.05, model 15). Finally, the measure, no dedicated institutional blockholders, is not significantly associated with high performance HR practices and employee involvement HR practices.

Hypothesis 11a postulates that founding family ownership interacts positively with dedicated institutional ownership aggregation and concentration with regards to commitment HR systems. This hypothesis was partially supported. The interaction of

founding family ownership and dedicated institutional ownership aggregation is positively associated, albeit marginally significant, with the likelihood of the firm having employee involvement HR practices (β= 0.008, p<.10, model 10). With regards to dedicated institutional concentration, the interaction of founding family ownership and dedicated institutional blockholders is positively associated with the likelihood of the firm having employee involvement HR practices (β= 0.068, p<.10, model 13), although marginally significant. In addition, the interaction of founding family ownership and dedicated top five institutional holdings is positively associated with the likelihood of the firm having employee involvement HR practices (β= 0.009, p<.10, model 16). To further understand this, these interactions were plotted in Figures 3, 4, and 5, respectively. Collectively, this revealed that the likelihood of the firm having employee involvement HR practices is relatively higher when both founding family ownership and dedicated institutional ownership aggregation or concentration is low. However, when the firm has high levels of founding family ownership the likelihood of having employee involvement HR practices is greater when dedicated institutional ownership aggregation or concentration is high as opposed to low.

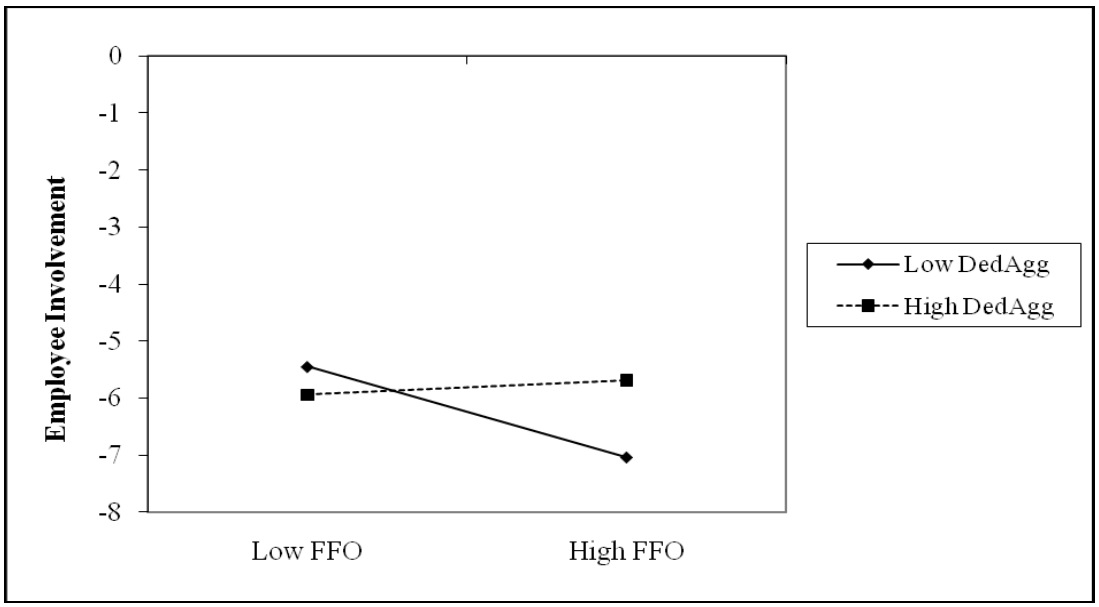

Figure 3. Interaction of Founding Family Ownership Stake and Dedicated Institutional Ownership Aggregation on Employee Involvement HR Practices

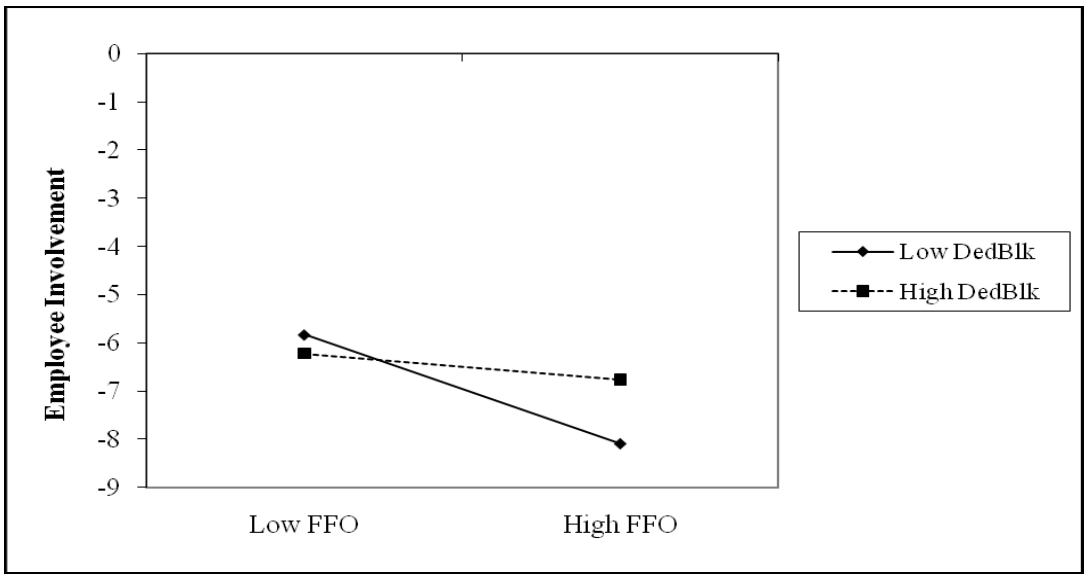

Figure 4. Interaction of Founding Family Ownership Stake and Dedicated Institutional Ownership Concentration on Employee Involvement HR Practices

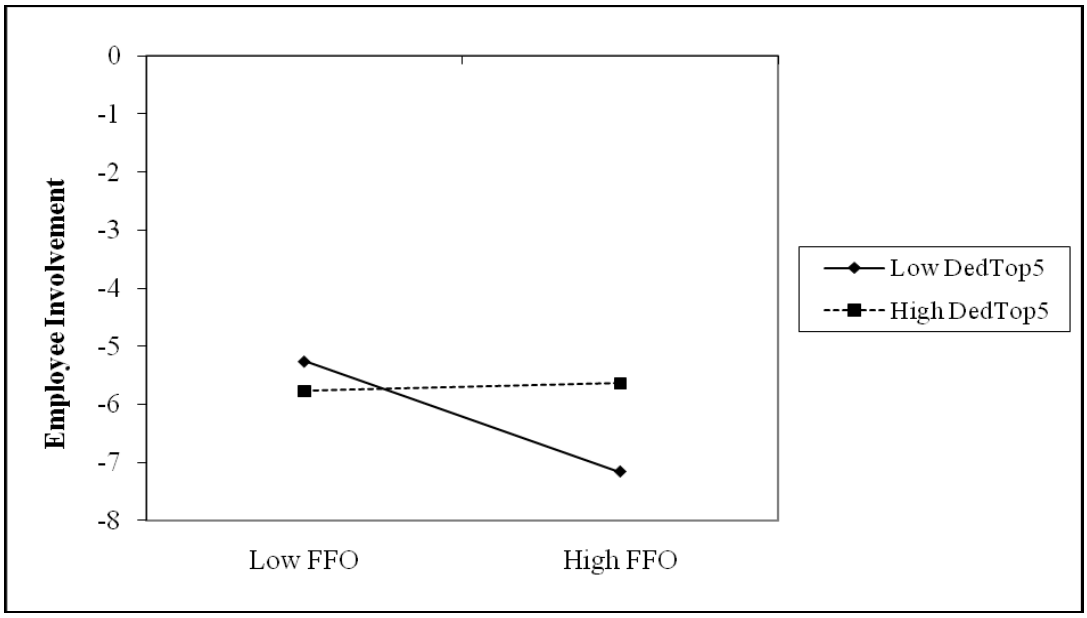

Figure 5. Interaction of Founding Family Ownership Stake and Dedicated Top 5 Institutional Holdings on Employee Involvement HR Practices

Hypothesis 11b states that founding family ownership interacts negatively with dedicated institutional ownership dispersion with regards to commitment HR systems. This hypothesis was not supported for the dedicated institutional investor count measure; however, it was partially supported for the measures of no dedicated institutional blockholders. The interaction of founding family ownership and no dedicated institution blockholders is negatively associated with the likelihood of the firm having employee involvement HR practices (β= -0.061, p<.10, model 21). To understand this better, the interaction was plotted in Figure 8. This revealed that the likelihood of the firm having employee involvement HR practices is lower when founding family ownership is high and there are no dedicated institutional blockholders.

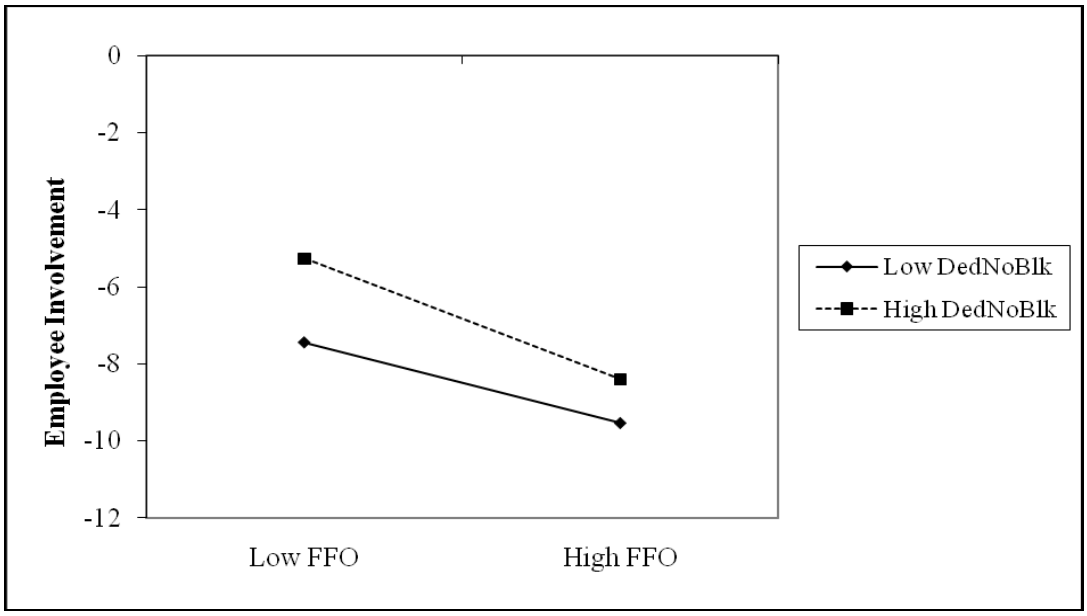

Figure 6. Interaction of Founding Family Ownership Stake and No Dedicated Blockholders on Employee Involvement HR Practices

Hypothesis 11c postulates that non-founding family ownership interacts negatively with transient institutional ownership aggregation or concentration with regards to commitment HR systems. This hypothesis was not supported for any of the aggregation and concentration measures. Contrary to what was expected, the interaction of non-founding family ownership and transient top five institutional holdings was positively related with the use of high performance HR practices (β= 0.001, p<.01, model 13). To further understand this, the interaction was plotted in Figure 7. It revealed that the likelihood of the firm having high performance HR practices is greater when the transient top five institutional holdings are high, irrespective of non-founding family ownership.

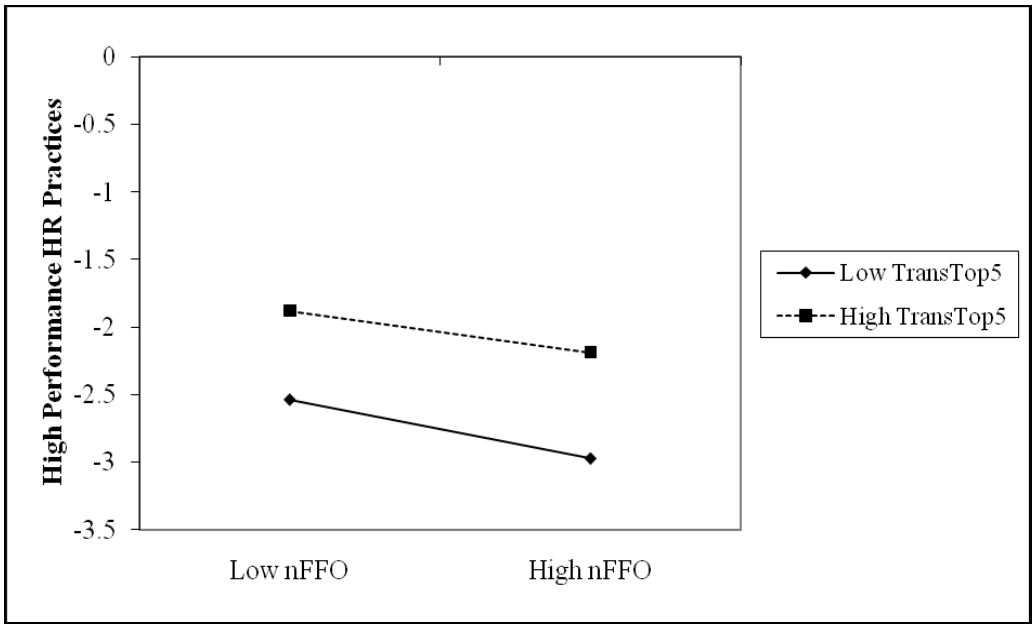

Figure 7. Interaction of Non-Founding Family Ownership Stake and Transient Top 5 Institutional Holdings on High Performance HR Practices

Hypothesis 11d states that non-founding family ownership interacts negatively with transient institutional ownership dispersion with regards to commitment HR systems. This hypothesis was not supported for any of the commitment HR system variables.

A summary of the findings appears below in Table A.

SUMMARY OF RESULTS

Independent Variables		Dependent Variables	
		High Performace HR Practices	Employee Involvement HR Practices
Founding Family Ownership (FFO)	Family Firm	n.s.	Positive*
	FFO Stake	Positive*	Negative
FFO X Founder CEO		n.s.	n.s.
FFO X Descendent CEO		n.s.	n.s.
Non-Founding Family Ownership (NFFO)		Negative*	Positive
Transient Institution Ownership (IO) Aggregation		n.s.	Negative*
Dedicated Institution Ownership (IO) Aggregation		n.s.	n.s.
Transient IO Concentration	Transient Blockholders	Negative*	Negative*
	Transient Top5 Inst. Holdings	n.s.	Negative*
Dedicated IO Concentration	Dedicated Blockholders	n.s.	n.s.
	Dedicated Top5 Inst. Holdings	n.s.	n.s.
Transient IO Dispersion	Transient Institution Count	Negative*	n.s.
	No Transient Blockholders	Positive	Positive
Dedicated IO Dispersion	Dedicated Institution Count	Positive	n.s.
	No Dedicated Blockholders	n.s.	n.s.
NFFO X Transient IO Aggregation		n.s.	n.s.
FFO X Dedicated IO Aggregation		n.s.	Positive*
NFFO X Transient IO Concentration	NFFO X Transient Blockholders	n.s.	n.s.
	NFFO X Transient Top5 Inst. Holdings	Positive	n.s.
FFO X Dedicated IO Concentration	FFO X Dedicated Blockholders	n.s.	Positive*
	FFO X Dedicated Top5 Inst. Holdings	n.s.	Positive*
NFFO X Transient IO Dispersion	NFFO X Transient Inst. Count	n.s.	n.s.
	NFFO X No Transient Blockholders	n.s.	n.s.
FFO X Dedicated IO Dispersion	FFO X Dedicated Inst. Count	n.s.	n.s.
	FFO X No Dedicated Blockholders	n.s.	Negative*

** In the predicted/expected direction*

TABLE A. Summary of Results

Post-hoc Analyses I

With regards to employee involvement HR practices, my results for both founding family ownership stake and non-founding family ownership stake were contrary to what was initially hypothesized. Previous research (e.g., Anderson & Reeb, 2003) suggests that the relationship between founding family ownership stake and employee involvement HR practices might be non-linear as opposed to linear. Therefore, I

explored the possibility that the relationship between founding family ownership and employee involvement HR practices is curvilinear. Likewise, the possibility of a curvilinear relationship for non-founding family ownership and employee involvement HR practices was investigated.

This idea was tested by introducing the relevant quadratic term into the regression equation shown in Table 5. To address multicollinearity issues, the continuous variables used to create the squared terms were mean centered (Aiken & West, 1991). After doing this, all variance inflation factors (VIF) for all regression models were below the standard cutoff of 10 (Belsley, Kuh, & Welsch, 1980). With regards to founding family ownership stake, the original term was positively associated with the likelihood of the firm having employee involvement HR practices (β= 0.227, p<.05, model 3), and the squared term was negatively associated with the likelihood of the firm having employee involvement HR practices (β= -0.016, p<.01, model 3). This relationship is a predominately positive and, therefore, follows a concave downward curve (Aiken & West, 1991). The relationship between founding family ownership stake and employee involvement HR practices is positive up to the point of the founding family owning 11.22 percent of the total common shares outstanding. The majority of the sample has founding family ownership less than or equal to 11.22 percent. Beyond that point, the association is negative. Figure 8 depicts a graphical representation of this relationship.

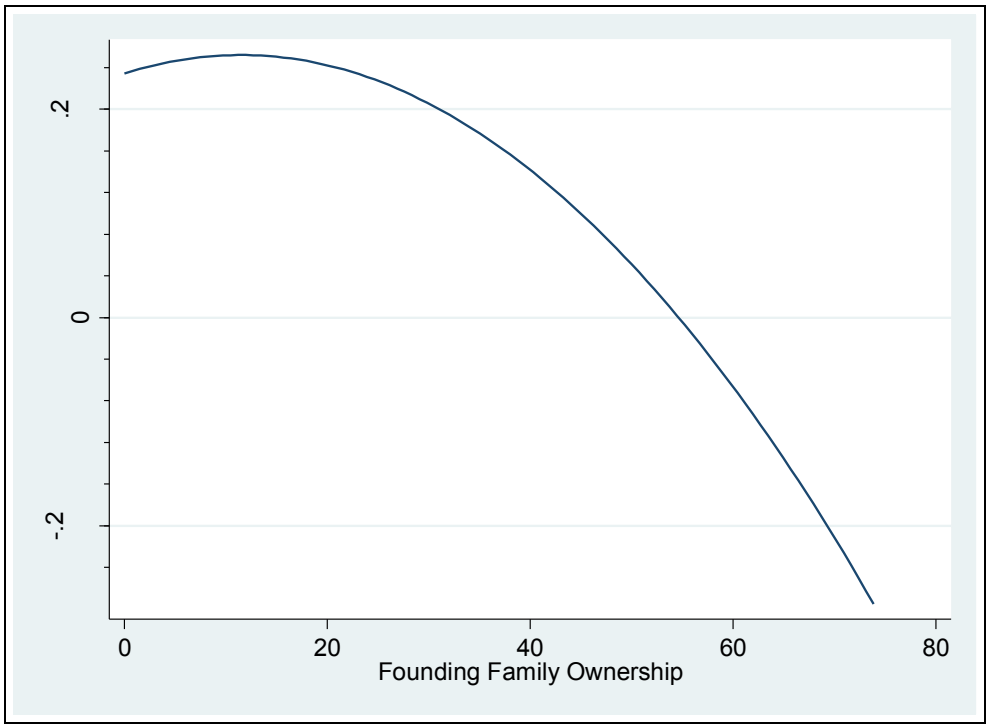

Figure 8. Curvilinear Relationship between Founding Family Ownership Stake and Employee Involvement HR Practices

With regards to non-founding family ownership, the squared term was negatively associated with the likelihood of the firm having employee involvement HR practices (β= -0.012, p<.05, model 7). This relationship is a predominately negative following a concave downward curve (Aiken & West, 1991). Specifically, non-founding family ownership is negatively associated with employee involvement HR practices when non-founding family ownership exceeds 88.78 percent. Prior to that point, the relationship is positive. However, the majority of the sample firms exist beyond the inflection point. Figure 9 presents a graphical representation of this relationship.

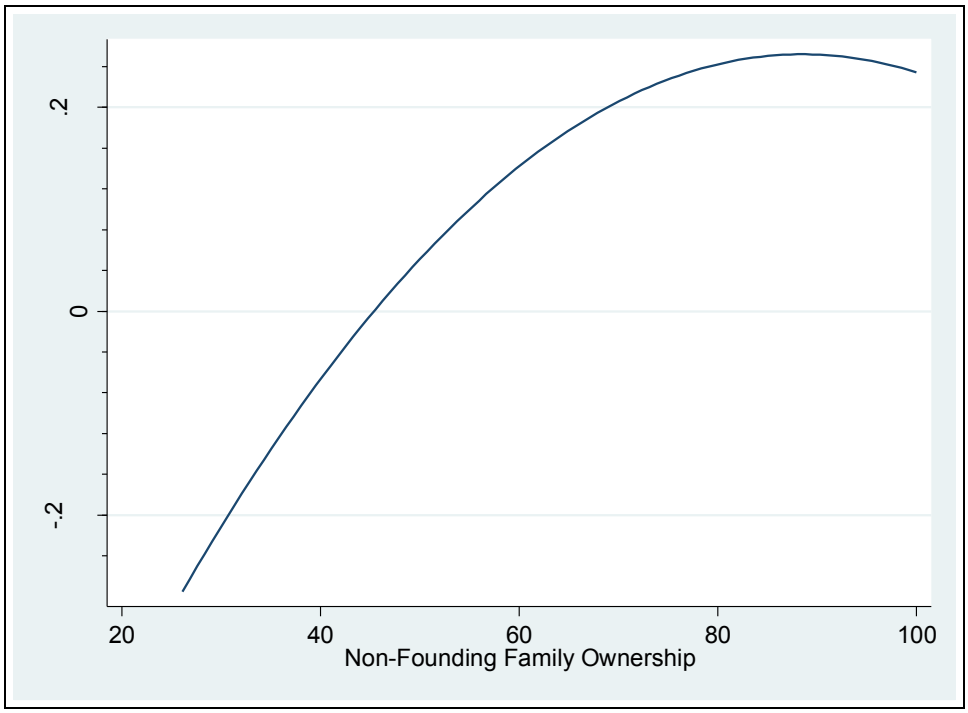

Figure 9. Curvilinear Relationship between Non-Founding Family Ownership and Employee Involvement HR Practices

Given these findings, additional analyses were conducted to explore the possible moderating effect of the founder as CEO and descendant as CEO on the curvilinear relationship between founding family ownership stake and employee involvement HR practices. This idea was tested by introducing the relevant quadratic interaction term into the regression equation shown in Table 5. To address multicollinearity issues, the continuous variables used to create both squared and interaction terms were mean centered, whereas the dichotomous variables were re-coded as -1 and 1 (Aiken & West, 1991). After doing this, all variance inflation factors (VIF) for all regression models were below the standard cutoff of 10 (Belsley, Kuh, & Welsch, 1980). There was no support for a moderating effect of the founder as CEO on this relationship. However, the descendent as CEO moderated the curvilinear relationship between founding family

ownership stake and the likelihood of the firm having employee involvement HR practices. Specifically, the interaction between founding family ownership and descendent CEO was negatively related to the likelihood of the firm having employee involvement HR practices (β= -0.224, p<.05, model 5). Conversely, the quadratic interaction of founding family ownership and descendent CEO was positively associated with the likelihood of the firm having employee involvement HR practices (β= 0.009, p<.05, model 5). An inspection of the interaction plot (see Figure 10) reveals that having a descendent of the founder as CEO suppresses the likelihood of the firm having employee involvement HR practices under low to intermediate levels of founding family ownership stake.

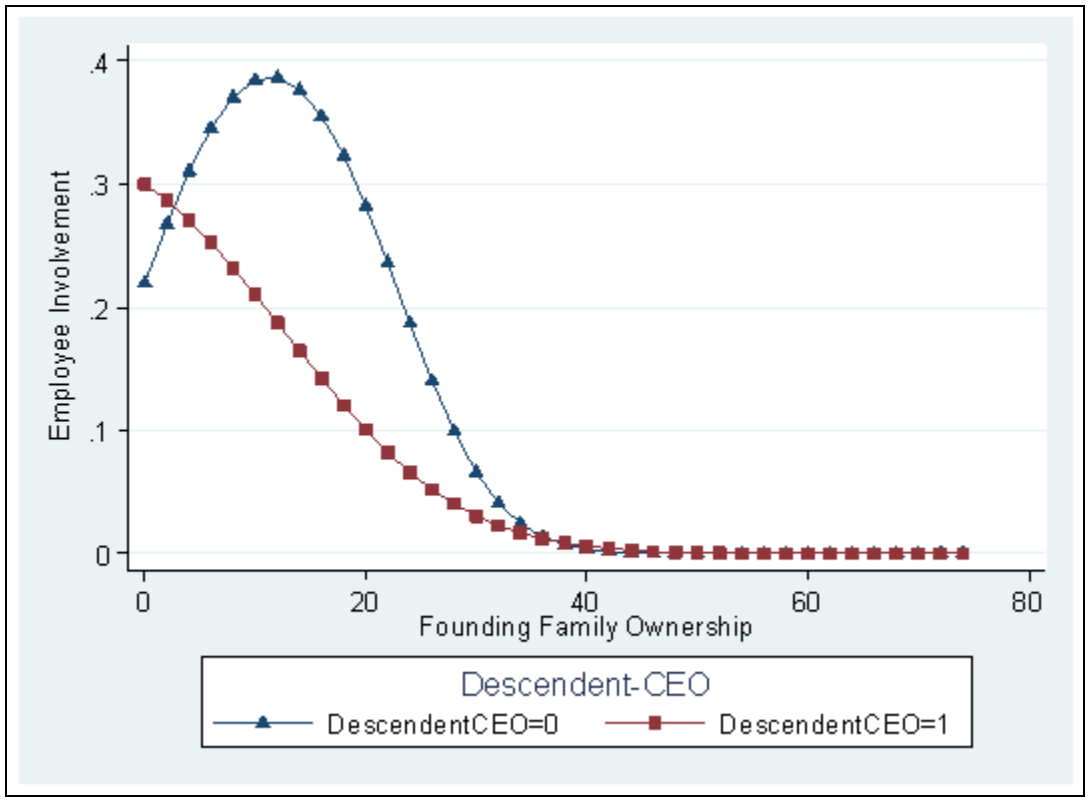

Figure 10. Curvilinear interaction of Founding Family Ownership Stake and Descendent CEO on Employee Involvement HR Practices

A summary of the post-hoc findings with respect to the non-linear relationship between founding family ownership and employee involvement HR practices is below in Table B.

Summary of Findings

Independent Variables	*Dependent Variable* Employee Involvement HR Practices
Founding Family Ownership (FFO) Stake	Curvilinear (Predominately Positive)
FFO Stake X Founder CEO	n.s.
FFO Stake X Descendent CEO	Curvilinear Interaction (Negative)
Non-Founding Family Ownership Stake	Curvilinear (Predominately Negative)

Table B. Summary of Post-Hoc I Results for non-linear relationship between Founding Family Ownership and Employee Involvement HR Practices.

Post-Hoc Analyses II

To further explicate the findings with respect to high performance HR practices, I turn my attention to the individual HR practices associated with these HR systems. Stated previously, high performance HR practices is measured as an additive index comprised of employee involvement HR practices, cash profit sharing, sufficient retirement benefits, and work life benefits. According to Chadwick (2010), the configuration of a firm's HR practices is influenced by a number of factors beyond that of managerial choice. In addition, Mercer's Investment Consulting in their 2006 survey indicates that U.S. institutional investors take the firm's HR practices (e.g., stock ownership and work/life balance) into consideration when making investment decisions (Mercer Investment Consulting, 2006). Taken together, this suggests that large shareholders may influence the firm's configuration of HR practices which could have

implications for its HR system. Thus, I explore this possibility by examining the relationship between large shareholders and the HR practices associated with high performance HR practices. Given that employee involvement HR practices was analyzed previously, this analysis focuses on the remaining three HR practices—cash profit sharing, sufficient retirement benefits, and work life benefits. Tables 6, 7, and 8 provide additional detail with regards to the analyses.

The analyses were conducted using cross-sectional time-series logistic regression given that these HR practices are measured using binary variables. Similar to the commitment HR system variables, the Hausman test was conducted to determine whether fixed or random effects models were the most efficient (Hausman, 1978). Based on this test, random effects models were supported for the regression models where cash profit sharing and work life benefits are the dependent variables. Fixed effects models are more efficient for sufficient retirement benefits. Finally, regression assumptions were tested and violations were addressed. To address multicollinearity issues, the continuous variables used to create interaction terms were mean centered, whereas the binary variables were re-coded as -1 and 1 (Aiken & West, 1991). After doing this, all variance inflation factors (VIF) for all regression models were below the standard cutoff of 10 (Belsley, Kuh, & Welsch, 1980). Outliers were identified using the Belsley-Kuh-Welsch test which examines the leverage (hat) matrix, studentized deleted residuals, standardized Dfit values, and the covariance ratio of each data point. Data points that violated all four criteria were considered outliers and merited closer examination. Specifically, a comparison of the regression models with and without the outliers was done. If the coefficients and statistical significance were substantially different in the model after the

outliers were removed, then those outliers were considered influential and therefore excluded from the model (Belsley, Kuh, & Welsch, 1980).

With respect to founding family ownership, founding family firm is not statistically related to the cash profit sharing or sufficient retirement benefits. However, founding family firm was negatively associated with the likelihood of a firm having work life benefits (β= -2.930, p<.05, model 6) across most models. On the other hand, founding family ownership stake is positively associated with the likelihood of the firm having sufficient retirement benefits (β= 0.137, p<.05, model 2) and, for some models, work life benefits (β= 0.109, p<.05, model 6). Founding family ownership stake was not statistically related to cash profit sharing.

Having the founder or a descendent of the founder serve in the capacity of CEO does not moderate the relationship between founding family ownership stake and the underlying HR practices—cash profit sharing, sufficient retirement benefits, or work life benefits—associated with high performance HR practices.

Non-founding family ownership is negatively associated with the likelihood of the firm having sufficient retirement benefits (β= -0.137, p<.05, model 5) and work life benefits (β= -0.151, p<.05, model 7) for two of the models. It was not significantly related to cash profit sharing.

Transient institutional ownership aggregation is negatively associated, although marginally significant, with the likelihood of the firm having work life benefits (β= -0.121, p<.10) for model 7 only; however, it is not significantly related to work life benefits for models 6 and 8. In addition, transient institutional ownership aggregation is not significantly associated with cash profit sharing or sufficient retirement benefits.

Dedicated institutional ownership aggregation is negatively associated with the likelihood of the firm having cash profit sharing (β= -0.077, p<.05, model 6). It is not significantly related to the likelihood of the firm using sufficient retirement benefits or work life benefits.

With regards to transient institutional ownership concentration, transient institutional blockholders are not significantly associated with cash profit sharing, sufficient retirement benefits, or work life benefits. On the other hand, transient institutional top five holdings is positively associated with the likelihood of the firm having sufficient retirement benefits (β= 0.068, p<.05, model 12). It is not significantly related to cash profit sharing or work life benefits.

With respect to dedicated institutional ownership concentration, dedicated institutional blockholders are negatively associated, albeit marginally significant, with the likelihood of a firm having cash profit sharing (β= -0.498, p<.10, model 9). It is not significantly related to the likelihood of the firm using sufficient retirement benefits or work life benefits. On the other hand, dedicated institutional top five holdings is positively associated, albeit marginally significant, with the likelihood of a firm having sufficient retirement benefits (β= 0.037, p<.10, model 12). Conversely, dedicated institutional top five holdings are negatively associated with the likelihood of a firm having cash profit sharing (β= -0.075, p<.05, model 12). Finally, it is not significantly associated work life benefits.

With regards to transient institutional ownership dispersion, transient institutional count is positively associated with the likelihood of the firm having work life benefits (β= 0.037, p<.001, model 15). Conversely, transient institutional count is negatively

associated with the likelihood of the firm having sufficient retirement benefits (β= -0.021, p<.001, model 15). It is not significantly related to cash profit sharing. On the other hand, the measure, no transient institutional blockholders, is not significantly related to cash profit sharing, sufficient retirement benefits, or work life benefits.

With respect to dedicated institutional ownership dispersion, dedicated institutional count was positively associated with the likelihood of the firm having sufficient retirement benefits (β= 0.250, p<.001, model 15) and work life benefits (β= 0.169, p<.10, model 15), although marginally significant. It was not significantly related to cash profit sharing. On the other hand, the measure, no dedicated institutional blockholders, is negatively associated with the likelihood of the firm having work life benefits (β= -1.334, p<.05, model 15) in two of three models. However, it is not significantly associated with cash profit sharing or sufficient retirement benefits.

With regards to the joint effects of large shareholders, the interaction of non-founding family ownership and transient institutional count was positively associated with the likelihood of the firm having work life benefits (β= 0.002, p<.10, model 16). To understand this further, this interaction was plotted in Figure 11. It reveals that the likelihood of the firm having work life benefits is smaller when there is a low count of transient institutional investors, irrespective of non-founding family ownership. Conversely, the likelihood of the firm having work life benefits is higher when non-founding family ownership is high and the count of transient institutional investors is high. Finally, there are no other significant interaction effects to highlight.

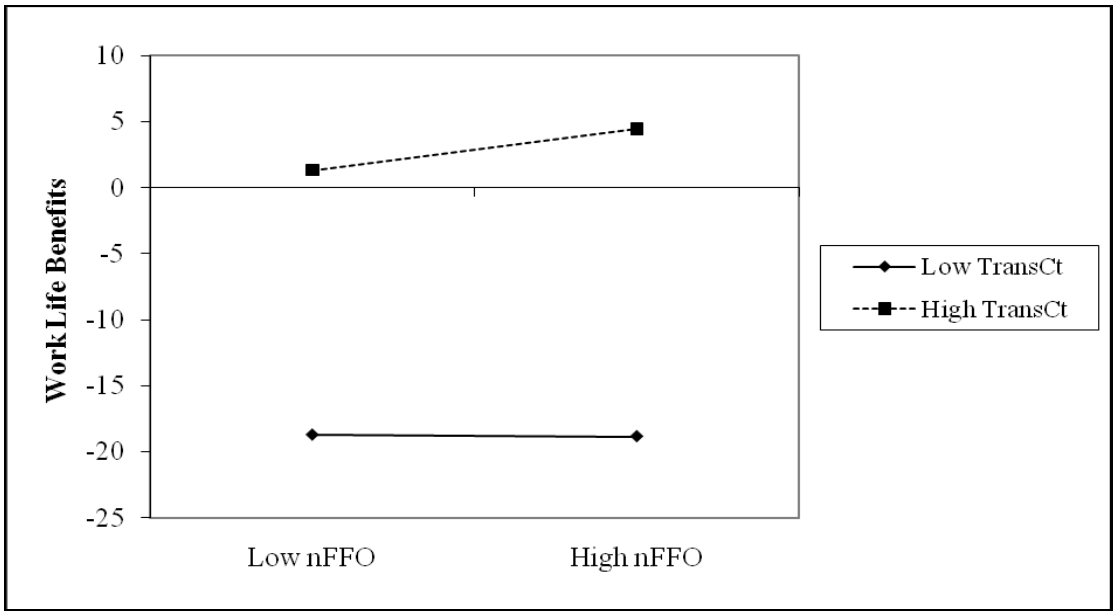

Figure 11. Interaction of Non-Founding Family Ownership Stake and Transient Institutional Count on Work Life Benefits

A summary of the post-hoc findings with respect to high performance HR practices appears below in Table C.

SUMMARY OF RESULTS

Independent Variables		Dependent Variables		
		Cash Profit Sharing	Sufficient Retirement Benefits	Work Life Benefits
Founding Family Ownership (FFO)	Family Firm	n.s.	n.s.	Negative *(13 of*
	FFO Stake	n.s.	Positive*	Positive* *(6 of*
FFO X Founder CEO		n.s.	n.s.	n.s.
FFO X Descendent CEO		n.s.	n.s.	n.s.
Non-Founding Family Ownership (NFFO)		n.s.	Negative*	Negative* *(2 of*
Transient Institution Ownership (IO) Aggregation		n.s.	n.s.	Negative* *(1 of*
Dedicated Institution Ownership (IO) Aggregation		Negative	n.s.	n.s.
Transient IO Concentration	Transient Blockholders	n.s.	n.s.	n.s.
	Transient Top5 Inst. Holdings	n.s.	Positive	n.s.
Dedicated IO Concentration	Dedicated Blockholders	Negative	n.s.	n.s.
	Dedicated Top5 Inst. Holdings	Negative	Positive* *(2 of 3*	n.s.
Transient IO Dispersion	Transient Institution Count	n.s.	Negative	Positive*
	No Transient Blockholders	n.s.	n.s.	n.s.
Dedicated IO Dispersion	Dedicated Institution Count	n.s.	Positive	Positive *(1 of 3*
	No Dedicated Blockholders	n.s.	n.s.	Negative* *(2 of*
NFFO X Transient IO Aggregation		n.s.	n.s.	n.s.
FFO X Dedicated IO Aggregation		n.s.	n.s.	n.s.
NFFO X Transient IO Concentration	NFFO X Transient Blockholders	n.s.	n.s.	n.s.
	NFFO X Transient Top5 Inst. Holdings	n.s.	n.s.	n.s.
FFO X Dedicated IO Concentration	FFO X Dedicated Blockholders	n.s.	n.s.	n.s.
	FFO X Dedicated Top5 Inst. Holdings	n.s.	n.s.	n.s.
NFFO X Transient IO Dispersion	NFFO X Transient Inst. Count	n.s.	n.s.	Positive
	NFFO X No Transient Blockholders	n.s.	n.s.	n.s.
FFO X Dedicated IO Dispersion	FFO X Dedicated Inst. Count	n.s.	n.s.	n.s.
	FFO X No Dedicated Blockholders	n.s.	n.s.	n.s.

^Unless otherwise indicated, the findings for each of the variables are consistent across all models

** Follows the predicted direction for High Performance HR practices*

Table C. Summary of Post-Hoc II results for High Performance HR Practices.

CHAPTER 6: DISCUSSION

This study sought to explore the impact of large shareholders on the firm's use of commitment HR systems. Drawing from the corporate governance and myopia/short-termism literatures, it was hypothesized that founding family owners and dedicated institutional investors would be positively associated with the use of commitment HR systems given their ability to appreciate and value long-term, strategic investments in human capital as being critical to the long-term viability of the firm. Conversely, non-founding family owners and transient institutional investors were argued to be negatively related to the use of commitment HR systems given their concern with near-term earnings at the expense of long-term strategic investments in the firm's workforce. Overall, the findings indicate that large shareholders can influence the firm's use of commitment HR systems. Table D presents a summary of the key findings of this study.

Summary of Key Findings

Independent Variables	*Dependent Variables*	
	High Performance HR Practices	Employee Involvement HR Practices
Founding Family Ownership Stake	Positive	Curvilinear (Predominately Positive)
Transient Institutional Blockholders	Negative	Negative

Table D. Summary of Key Dissertation Findings.

With regards to founding family ownership, the results indicate that founding family firms and founding family ownership stake are related to the use of commitment HR systems. However, the findings for each variable of founding family ownership differ, in some instances, based on how these items are measured. For example, founding family firm is not related to the use of high performance HR practices; however, the higher the founding family's ownership stake the more likely the firm uses high

performance HR practices. With regards to the founding family ownership measures, a refined measure (e.g., founding family ownership stake) is used that captures the variation in the percentage of founding family ownership shares to total common shares outstanding as a continuous variable (Villalonga & Amit, 2006). This measure is in contrast to the dummy variable (e.g., founding family firm) that indicates the mere presence or absence of members or representatives of the founding family as shareholders or board members (Anderson & Reeb, 2003). The challenge with this categorization approach is that it does not differentiate between firms where the founding family owns less than 1% of the firm's outstanding shares from those that own greater than 50%. Thus, it is the level of ownership by the founding family that matters with regards to high performance HR practices and not just their mere presence.

With regards to employee involvement HR practices, the findings conflicted based on the founding family ownership variable used. Specifically, there was strong support that founding family firms were more likely to use employee involvement HR practices. Conversely, initial findings indicate that an increased stake in the firm by the founding family lessened the likelihood that the firm placed an emphasis on employee involvement HR practices. Based on these conflicting findings, post-hoc analyses were conducted and revealed that this relationship was curvilinear as opposed to linear as originally hypothesized. Specifically, the founding family ownership stake was positively related to the use of employee involvement HR practices by the firm up to the founding family owning 11.22 percent of common shares outstanding. This represents the bulk of the sample used in this study. In other words, the relationship between founding family ownership stake and employee involvement HR practices was positive

for most of the firms represented in the sample. Above 11.22 percent ownership by the founding family, the relationship becomes negative between these two variables. A likely explanation is that of family opportunism. In their study of founding family ownership and firm performance, Anderson and Reeb (2003) suggest based on their findings that family opportunism begins to negatively impact firm performance at higher levels of ownership by the founding family. Similarly, it appears that founding families with ownership levels above 11.22 percent expropriate the firm's resources which adversely effects long-term, strategic investments in the workforce through the use of employee involvement HR practices. However, it is important to note that this impacts a small portion of the sample.

With regards to members of the founding family holding the position of CEO, the findings indicate that the founder as the CEO does not moderate the relationship between founding family ownership and commitment HR systems. Moreover, the results are the same when a descendent of the founder is the CEO according to the linear regression models. There are two possible explanations for this. First, the influence of the founder in the capacity of CEO on the firm's HR system may depend upon the individual holding the position of chairman of the board. For example, CEO's have been found to have greater influence on the activities of the firm when also holding the position of chairman of the board (e.g., Boyd, 1994). On the other hand, when the role of chairman of the board is occupied by someone other than the founder, the influence of the founder may be relatively limited. The same can be said when the descendent is in the position of CEO. Second, the influence of founding family members as CEO on the firm's use of commitment HR systems can depend upon the stage of the firm in its life cycle.

According to Morck, Shleifer, and Vishny (1988), the market valuation of the firm is higher among new firms and is lower in older firms when it is run by a member of the founding family. Thus, the use of commitment HR systems by the firm when the CEO is the founder or a descendent of the founder may depend on the age of the firm. Given this, the non-significant findings may be attributed to these factors not considered as apart of this study.

Given that the relationship between founding family ownership stake and employee involvement HR practices was found to be curvilinear, post-hoc analyses were conducted to explore the possibility of a moderating effect of founder CEO and descendent CEO, respectively, on this curvilinear relationship. Although there were, again, no findings for the moderating role of the founder as the CEO, the results reveal that the founder's descendent in the CEO's position moderates the curvilinear relationship between founding family ownership stake and employee involvement HR practices. When a descendent is the CEO, founding family ownership stake is less likely to result in the firm's use of employee involvement HR practices when the founding family owns approximately less than 40 percent of the total common shares outstanding. This suggests that descendent CEOs may lack both the ability and desire to make long-term strategic investments in the firm's workforce through the use of commitment HR systems, specifically employee involvement HR practices.

There was strong support that the higher the non-founding family ownership the less likely the firm uses high performance HR practices. However, similar to founding family ownership stake, the initial findings between non-founding family ownership and employee involvement HR practices are contrary to what was predicted. Specifically, the

higher the ownership by non-founding family members the more likely the firm uses employee involvement HR practices. Therefore, post-hoc analyses were conducted and revealed that the relationship between these two variables is nonlinear. Specifically, the relationship between non-founding family ownership and employee involvement HR practices is negative when non-founding family ownership exceeds 88.78 percent. This is where the bulk of the sample resides. Overall, this suggests that non-founding family owners are more concerned with near-term earnings at the expense of the firm making long-term commitments to its workforce via commitment HR systems.

Higher levels of ownership by transient institutional investors are negatively related to the firm using employee involvement HR practices. Stated previously, transient institutional investors are more concerned with near-term earnings as opposed to long-term, strategic investments (Bushee, 2001). This short-term focus therefore causes firms to not invest in its human resources through the use of commitment HR systems in order to appease this class of large shareholder.

With regards to dedicated institutional ownership aggregation, there was no support for the use of commitment HR systems. Similar to Bushee (1998) in his study of myopic R&D investment behavior, the lack of significance for dedicated institutional ownership aggregation is probably attributed to the fact that there are a limited number of instances of dedicated institutional investors as apart of the study's sample making it difficult to detect any effects.

Transient institutional ownership concentration is related to the use of commitment HR systems. Across both measures, there is strong support that the greater the concentration of transient institutional ownership the less likely that the firm will use

of employee involvement HR practices. In addition, the higher the number of transient institutional blockholders the less likely the firm will use high performance HR practices. This provides some indication that transient institutional ownership concentration has a greater influence on the firm's use of high performance HR practices relative to transient institutional ownership aggregation.

With respect to dedicated institutional ownership concentration, the findings indicate no support for commitment HR systems. Similar to dedicated institutional ownership aggregation, the limited number of dedicated institutional investor cases may present a challenge in detecting any effects in this study with regards to dedicated institutional ownership concentration (Bushee, 1998).

Transient institutional ownership dispersion is related to the use of commitment HR systems. Specifically, the higher the number of transient institutional investors the less likely the firm will use high performance HR practices. Further, a lack of transient institutional blockholders within the firm's ownership structure is positively associated with the firm's use of high performance HR practices and employee involvement HR practices. There is a possible explanation for the conflicting results of transient institutional ownership dispersion with respect to high performance HR practices for both measures. First, the transient institutional count measure is inclusive of both transient institutional blockholders as well as transient institutional investors with less than 5 percent of the total shares outstanding. It appears that the presence of transient institutional blockholders among the count of transient institutional investors is causing the relationship with high performance HR practices to be as expected. However, their absence causes the relationship with high performance HR practices to be opposite what

is expected. Although not conclusive, this suggests that transient institutional blockholders may indeed engage in active monitoring of the firm's activities. This is consistent with scant research (e.g., Burns, Kedia, & Lipson, 2010) with respect to transient institutional investors with large equity stakes and monitoring. Thus, when transient institutional blockholders are not present, the firm is more likely to use high performance HR practices.

With regards to dedicated institutional ownership dispersion, the findings indicate no support against commitment HR systems. Moreover, the findings for the count of dedicated institutions are contrary to what was predicted. Specifically, the higher the count of dedicated institutions in the firm's ownership structure the more likely the firm will use high performance HR practices. This finding along with transient institutional count brings into question the count measure itself. Traditionally, institutional ownership dispersion has been measured using the number of institutional investors (e.g., Khan, Dharwadkar, & Brandes, 2005). However, this measure may be insufficient when it comes to measuring dispersion among different types of institutional investors. The increased presence of dedicated institutional investors appears to influence the firm to behave in accordance with their long-term investment horizon as opposed to diluting their impact. The same can be said for transient institutional investors. Future studies should consider this possibility when investigating dispersion for different types of institutional investors.

Overall, the interaction hypotheses received weak support. In contrast to the main effects of founding family ownership stake and employee involvement HR practices in the linear model, the interaction of founding family ownership stake and dedicated

institutional ownership for both aggregation and concentration is associated with an increased likelihood that the firm will use employee involvement HR practices. Specifically, this means that increased dedicated institutional ownership at aggregate and concentrated levels counteracts the negative association that the founding family ownership stake has with the firm's use of employee involvement HR practices. Further, this effect is more pronounced at higher levels of founding family holdings. Taking post-hoc analyses into consideration with respect to the curvilinear relationship, this finding suggests that greater amounts of dedicated institutional ownership aggregation and concentration help to mitigate the effects of family opportunism that occur at higher levels of founding family ownership with regards to employee involvement HR practices. Likewise, the interaction of founding family ownership stake and no dedicated institutional blockholders is associated with a decreased likelihood that the firm will use employee involvement HR practices. Thus, without the presence of dedicated institutional blockholders, increased levels of founding family ownership is negatively associated with the firm's use of employee involvement HR practices.

Contrary to what was hypothesized, the interaction between non-founding family ownership and transient institutional top five holdings was positively related to the use of high performance HR practices. Given that the regression coefficients for non-founding family ownership and transient institutional top five holdings are of opposite signs, this interaction is considered a buffering interaction (Cohen, Cohen, West, & Aiken, 2003). The variable, transient institutional top five holdings, appears to weaken the effect of non-founding family ownership. In other words, an increase in transient institutional top five holdings serves to lessen the impact of non-founding family ownership. A likely

explanation stems from the non-founding family ownership measure itself. Non-founding family ownership captures the aggregate ownership of a wide variety of investors such as pressure-sensitive and quasi-indexer institutional investors who are not either members or representatives of the founding family. Thus, the effect of transient institutional investors is stronger because the non-founding family ownership measure captures institutional investors that are not likely to engage in active monitoring and tend to use a buy-and-hold investment strategy.

The construct, commitment HR systems, captures a wide variety of HR systems (e.g., high performance work practices, high involvement HR practices) that have been explored in the SHRM literature. While SHRM scholars tend to view and treat these HR systems as being essentially the same (e.g., Lepak & Snell, 1999, 2002; Wood de Mendes, & Lasaosa, 2003), others have posited that these HR systems are different with regards to their underlying individual HR practices and overall objectives (Becker & Gerhart, 1996; Lepak, Liao, Chung, & Harden, 2006). In general, the overall findings indicate that large shareholders (e.g., founding family owners and transient institutional investors) tend to respond similarly to high performance HR practices and employee involvement HR practices. This suggests that founding family owners and transient institutional investors view HR systems that represent a long-term commitment to employees as being one and the same.

Given that non-economic factors can influence the firm's configuration of HR practices (Chadwick, 2010), the influence of large shareholders on the underlying individual HR practices (e.g., cash profit sharing, sufficient retirement benefits, & work life benefits) of high performance HR practices was explored. Overall, the findings

suggest that large shareholders have preferences with regards to individual HR practices. Higher levels of ownership and greater amounts of concentrated holdings by dedicated institutional investors are negatively associated with the likelihood of the firm having a cash profit sharing program. Although cash profit sharing is associated with HR systems such as high performance work practices (e.g., Huselid, 1995), some management scholars dispute notion that variable pay programs such as cash profit sharing lead to a more committed workforce (Lepak, Laio, Chung, & Harden, 2006). Harrell-Cook and Ferris (1997) posit that a greater reliance on variable pay programs result in reduced commitment to employees. Further, Arthur (1994) in his configuration of high-commitment HR systems does not emphasize variable pay programs. Thus, it appears that these dedicated institutions do not view cash profit sharing as being critical to developing a workforce that will support the long-term viability of the firm.

With respect to sufficient retirement benefits, founding family ownership stake, transient institutional top five holdings, dedicated institutional top five holdings, and dedicated institutional count are positively associated with the likelihood of the firm providing sufficient retirement benefits for its employees. Whereas, sufficient retirement benefits are less likely when non-founding family ownership and transient institutional count are high. These findings primarily follow the same expectations that are articulated for commitment HR systems with the exception of transient institutional top five holdings. The measure for sufficient retirement benefits indicates a focus not entirely on defined-benefit retirement plans only. In other words, it appears to capture defined-benefit retirement plans in addition to other types of retirement benefits. According to Bhattacharya and Wright (2005), defined-benefit retirement plans represent an

uncertainty of cost for the firm due to such things as inflation. To deal with that uncertainty of cost, employers may turn to defined-contribution plans in an effort to reduce that uncertainty. Thus, it is plausible that transient institutional investors with top five holdings are supportive of this retirement benefit (e.g., defined-contribution plans) given that it allows for an altering of retirement costs. Future studies in this area should take a finer grained look at the relationship between transient institutional investors and both defined-benefit and defined-contribution retirement plans.

Finally, with regards to work life benefits, the findings are conflicting. For example, family firm is negatively associated with work life benefits; whereas, the higher the founding family ownership stake the more likely the firm will have work life benefits. Further, the findings are similar for dedicated institutional ownership dispersion. While this can be attributed in part to the measures used as previously discussed, there are possible explanations for these conflicting findings as well as the lack of significance. First, there may be other factors to consider when examining work life benefits. For example, firms that are older and have a higher proportion of female employees are more likely to have work life benefits (Perry-Smith & Blum, 2000). Further, institutional theory (e.g., Powell & DiMaggio, 1991) can provide additional insight. Normative pressures can cause organizations to adopt work life benefits to demonstrate concern for its employees and once institutionalized, these practices are difficult to remove (Powell & DiMaggio, 1991; Scott, 2001; Kelly, Kossek, Hammer, Durham, Bray, Chermack, Murphy, & Kaskubar, 2009). Thus, these factors may influence the findings associated with this study.

Taken together, it appears that large shareholders have preferences for certain HR practices. However, this may not be entirely accurate. Lepak, Laio, Chung, & Harden (2006) note that HR practices are "context dependent" (pg. 237) which means that the HR system within which the HR practice resides determines the objective of that specific HR practice. Thus, the findings from this study likely suggest that large shareholders may have a preference for what these practices represent either a long-term or short-term investment in the firm's workforce based on the HR system within which that HR practice resides. Further, this study has sought to capture the relationship between large shareholders and different types of commitment HR systems; however, it may be entirely possible that some of these individual HR practices (e.g., cash profit sharing) may be used as apart of other non-commitment HR systems (e.g., job-based HR systems) not explored in this study.

CHAPTER 7: CONCLUSION

The purpose of this study is to advance the field of SHRM by empirically investigating the role of large shareholders on the firm's use of commitment HR systems. Using panel data of the S&P 500 firms from 2001-2005, the relationship between different types of large shareholders and commitment HR systems was examined. In addition, the underlying HR practices associated with high performance HR practices were individually examined with respect to large shareholders. Overall, the findings indicate that founding family owners and transient institutional investors tend to influence the firm's propensity to use commitment HR systems. Specifically, founding family ownership stake is positively associated with the use of high performance HR practices; whereas, the relationship between founding family ownership stake and employee involvement HR practices is positive up to the founding family owning 11.22 percent of the total common shares outstanding. In addition, transient institutional investors, in general, tend to oppose the use of commitment HR systems. This sheds an important light on how different large shareholders perceive the use of commitment HR systems. Finally, large shareholders are associated with the firm having cash profit sharing, sufficient retirement benefits, and work life benefits. Given this, large shareholders ought to be considered in future studies as another factor that serves to either enable or constrain the firm's use of commitment HR systems.

Contributions

This study makes four important contributions to the corporate governance and strategic human resource management literatures. First, prior corporate governance

empirical research has examined the relationship between founding family owners and organizational issues such as corporate diversification, debt financing, firm value and financial performance (e.g., Anderson, Mansi, & Reeb, 2003; Anderson & Reeb, 2003a, 2003b; Maury, 2006; Villalonga & Amit, 2006). Moreover, corporate governance scholars have examined the association between institutional investors and R&D spending, corporate innovation, corporate entrepreneurship, firm competitive actions, corporate social responsibility, and executive compensation (e.g., Graves, 1988; Baysinger, et al., 1991; Zahra, 1996; Bushee, 1998; Johnson & Greening, 1999; Hoskisson, et al., 2002; Hartzell & Starks, 2003; Connelly, Tihanyi, Certo, & Hitt, 2010). I extend this research further with respect to both founding family owners and institutional investors by considering the management of human capital. Although scholars have theoretically explored the relationship between corporate governance mechanisms including the firm's ownership structure and the management of human resources (e.g., Dharwadkar, Brandes, & Mullins, 2008), this study empirically examines specifically two prevalent large shareholders, founding family owners and institutional investors, and the management of human capital.

Second, prior strategic human resource management research has empirically examined a number of factors associated with the use of commitment HR systems including business strategy, avoidance of union recognition, organizational culture, flexible leadership, organizational structure, industry characteristics, firm size, and capital intensity (e.g., Arthur, 1992; Huseild, & Rau, 1997; Lepak & Snell, 1999; Roche, 1999; Ordiz-Fuertes & Fernandez-Sanchez, 2003; Toh, Morgeson, & Campion, 2008). I extend this research further by empirically examining the role of large shareholders,

specifically founding family owners and institutional investors, on the firm's use of commitment HR systems. Although prior strategic human resource management research had only theoretically examined the role of shareholders on human resource investment (Harrell-Cook & Ferris, 1997), this study takes a finer grain look at two specific types of large shareholders, founding family owners and institutional investors, as apart of this empirical investigation. Finally, this study addresses calls by SHRM researchers (e.g., Becker & Gerhart 1996; Lepak & Snell, 2002) for an examination of the constraints associated with firms using of commitment HR systems by adding these large shareholders to the discussion.

Third, prior strategic human resource management studies have relied almost exclusively on cross-sectional research designs given the traditional use of surveys for data collection; however, strategic human resource management scholars (e.g., Becker & Gerhart, 1996; Guest, 2001; Gerhart, Wright, McMahan, & Snell, 2000; Wright, Gardner, & Moynihan, 2003) have called for more longitudinal studies to better understand the direction of causality when examining the relationship between commitment HR systems and other critical constructs of interest. This study addresses these calls by examining the relationship between large shareholders (e.g., founding family owners and institutional investors) and the use of commitment HR systems over a period of five years. Therefore, this study can draw clear conclusions as to the influence of founding family owners and transient institutional investors on the firm's use of commitment HR systems.

Fourth, corporate governance scholars have argued that transient institutional investors tend to use exit as opposed to voice in dealing with portfolio firms (Hirschman, 1970; Porter, 1992; Bushee, 1998). However, Burns, Kedia, and Lipson (2010) find that

transient institutional investors may engage in increased levels of monitoring when their ownership is concentrated. My findings suggest that transient institutional investors with concentrated holdings may engage in monitoring activities with regards to commitment HR systems. Specifically, transient institutional ownership concentration is negatively associated with the use of commitment HR systems. However, the absence of transient institutional investors with concentrated levels of ownership is positively associated with the use of commitment HR systems. Therefore, I add to the research in this space which indicates the use of monitoring by transient institutional investors when their ownership stake is high.

Managerial Implications

The findings of this study suggest that large shareholders can influence the use of commitment HR systems by the firm. This is an important implication for managers who may be hitting the proverbial wall in an attempt to use commitment HR systems as a means of developing a competitive advantage through its workforce. Likewise, it is important for managers currently using commitment HR systems to understand the support that large shareholders provide. Large shareholders can provide the firm with either patient or impatient capital based on their investment horizon and ability to value long-term strategic investments (Laverty, 1996; Smith, Pfeffer, & Rousseau, 2000; Ryan & Schneider, 2002). Given this, patient capital is needed to enable the firm to make the necessary long-term, strategic investments in its workforce through the use of commitment HR systems. However, managers may view this as being outside of their control given that shareholders can buy and sell their ownership stakes in firms as they please. However, researchers have found that firms can through their disclosure practices

attract certain types of institutional investors (Bushee & Noe, 2000; Bushee, 2004). Thus, managers can take some action to influence the type of large shareholders represented in the firm's ownership structure. Taken together, these findings should greatly benefit managers in understanding how large shareholders either enable or hinder the actions of the firm with regards to commitment HR systems.

Limitations of the Study

In spite of the contributions, there are some limitations of this study. The first limitation has to do with the measurement of high performance HR practices. This measure included only cash profit sharing, sufficient retirement benefits, work life benefits, and employee involvement HR practices. Although the use archival measures of HR may exclude certain HR practices (e.g., Godard, 2001; Guest, 2001; Iverson & Zatzik, 2007), the measure of high performance HR practices used in this study does not include a few critical HR practices (e.g., performance appraisals, training and development, and staffing) that are common to SHRM studies that use a survey methodology in measuring this same construct (e.g., Huselid, 1995; Datta, Guthrie, & Wright, 2005). This would have served to strengthen the validity of the findings on high performance HR practices.

The second limitation centers on the level of measurement. Most of the variables used to measure the HR systems and practices (e.g., cash profit sharing, sufficient retirement benefits, work life benefits, & employee involvement HR practices) were dichotomous. To this end, only the mere presence or absence of this HR system or practice could be examined as opposed to understanding the degree of use within the firm.

The third limitation focuses on Study 1 with the low response rate (n=10) for the questionnaire. The low response rate for Study 1 did not provide the opportunity to examine the relationship between large shareholders and commitment HR systems using more traditional measures and methodologies. Had the response rate achieved satisfactory levels, a comparison of findings between the cross-sectional study (Study 1) using more traditional approaches and the longitudinal-study (Study 2) using archival HR measures could have been conducted. This would have enabled a better determination as to the validity of the findings for study 2 as well as the archival measures of commitment HR systems.

The fourth limitation centers on the impact of transient institutional investors on the firm's use of commitment HR systems. Stated previously, transient institutional investors pressure managers to behave myopically given their concern for near-term earnings (e.g., Bushee, 1998). However, earnings pressure has been found to force managers to behave myopically as well (e.g., Stein, 1989; Bhojraj & Libby, 2005). Thus, it is possible that earnings pressure may be forcing the firm to not use commitment HR systems more than transient institutional investors. Unfortunately, earnings pressure was not accounted for as apart of this study. Had it been included, the exact nature of the relationship between transient institutional investors and commitment HR systems could have been better ascertained.

The fifth limitation is that this study only takes into consideration monitoring by institutional investors at the firm-level. According to Dharwadkar, et al. (2008), the portfolio characteristics of institutional investors has the potential to negate monitoring at the firm-level. Thus, it is possible that the influence of institutional investors on the

firm's use of commitment HR systems may depend upon the characteristics of their portfolios. This could have implications for the lack of findings with regards to dedicated institutional investors. Specifically, their influence on the firm's use of commitment HR systems may depend upon their portfolio characteristics rather than the size of their equity stake in the firm. Had portfolio characteristics been taken into consideration, the relationship between dedicated institutional investors and commitment HR practices could have been fully explicated.

Finally, the study focused on firms that were apart of the S&P 500 given the nature of the data available. It would be interesting to understand if these findings extend to firms that are not apart of this selective group. For example, would the findings hold for smaller, publicly-traded firms that would be considered to have more sophisticated HR systems?

Future Directions

Future directions for this stream of research are numerous. First, it would be fruitful to explore if other corporate governance mechanisms (e.g., executive incentives and board of directors) besides large shareholders have a similar effect on the firm's use of commitment HR systems. Second, it would be interesting to understand if the impact of large shareholders on the firm's use of commitment HR systems is either direct, indirect, or both. For example, institutional investors can indirectly influence the strategic direction of the firm through the composition of the board of director or the use of executive incentives (Smith, 1996; Carelton, Nelson, & Weisbach, 1998; David, Kochhar, & Levitas, 1998; Hartzell & Starks, 2003). Future research should examine the possibility of an intervening effect when examining this relationship. Third, this study

was conducted with firms headquartered primarily within the United States. It would be interesting to understand how large shareholders influence the use of HR systems and practices in other countries. Fourth, it would be interesting to explore the role of large shareholders on the relationship between strategic human resource management and firm performance. For example, if a firm has an established commitment HR system, would that firm underfund its investment in its workforce as the percentage of ownership by transient institutional investors grows as a way to meet near-term earnings targets? What would be the implications on firm performance long-term? These issues were not explored in this study and represent interesting questions for future research.

APPENDIX A – TABLES

TABLE 1
Measures, Survey Items/ Calculations, and Sources

Measure	Survey Items/Calculations	Source
Dependent Variables – Study 1:		
Commitment-based Human Resource Practices	<u>Selection Policies</u> • Internal candidates are given consideration over external candidates for job openings. • We select employees based on an overall fit to the company. • Our selection system focuses on the potential of the candidate to learn and grow with the organization. • We ensure that all employees in these positions are made aware of internal promotion opportunities. <u>Incentive Policies</u> • Employee bonuses or incentive plans are based primarily on the performance of the organization. • Salaries for employees in these positions are higher than those of our competitors. • Shares of stock are available to all core employees through stock purchase plans. • Goals for incentive plans are based on business-unit or company performance. <u>Training and Development Policies</u> • We provide multiple career path opportunities for employees to move across multiple functional areas of the company. • We provide training focused on team-building and teamwork skills training. • We sponsor company social events for employees to get to know one another. • We offer an orientation program that trains employees on the history and processes of the organization. • We use job rotation to expand the skills of employees. • We have a mentoring system to help develop these employees. • Performance appraisals are used primarily to set goals for personal development. • Performance appraisals are used to plan skill development and training for future advancement within the company.	Survey
High Performance Work Practices	<u>Proportion of Employees Covered by Practices</u> • One or more employment tests administered prior to hiring • Hold non-entry level jobs as a result of internal promotions • Promotions are primarily based upon merit or performance, as opposed to seniority • Hired following intensive/extensive recruiting • Are routinely administered attitude surveys to identify and correct employee morale problems	Survey

	• Are involved in programs designed to elicit participation and employee input (e.g., quality circles, problem-solving or similar groups) • Access to a formal grievance and/or complaint resolution system • Provided operating performance information • Provided financial performance information • Provided information on strategic plans • Receive formal performance appraisal and feedback on a routine basis • Formal performance feedback from more than one source (i.e., from several individuals such as supervisors, peers, etc.) • Compensation partially contingent on group performance (e.g., gainsharing, profit sharing, etc.) • Pay is based on a skill or knowledge-based system (versus a job-based system); i.e., pay is primarily determined by a person's skill or knowledge level as opposed to the particular job that they hold • Intensive/extensive training in company-specific skills (i.e., task or firm-specific training) • Intensive/extensive training in generic skills (e.g., problem-solving, communication skills, etc.) • Training in a variety of jobs or skills ("cross training") and/or routinely performing more than one job (are "cross utilized") • Are organized in self-directed teams in performing a major part of their work roles	
Dependent Variables – Study 2:		
Cash Profit Sharing	• Equals 1 if the firm "has a cash profit sharing program through which it has recently made distributions to a majority of its workforce", otherwise 0.	KLD Corporate Social Performance Data
Work Life Benefits	• Equals 1 if the firm "has outstanding employee benefits or other programs addressing work/life concerns, e.g., childcare, elder care, or flextime", otherwise 0.	KLD Corporate Social Performance Data
Sufficient Retirement Benefits	• Reverse coded to equal 1 if the firm did not have "a substantially underfunded defined pension plan, or an inadequate retirement benefits program", otherwise 0.	KLD Corporate Social Performance Data
Employee Involvement HR Practices	• Equals 1 if the firm "strongly encourages worker involvement and/or ownership through stock options available to a majority of its employees; gain sharing, stock ownership, sharing of financial information , or participation in management decision-making", otherwise 0.	KLD Corporate Social Performance Data
High Performance HR Practices	• Additive index of the following HR practices: cash profit sharing, work life benefits, sufficient retirement benefits, and employee involvement HR practices	KLD Corporate Social Performance Data
Independent and Moderating Variables:		
Transient Institutional Ownership	• The percentage of equity owned by transient institutional investors divided by the total common shares outstanding	CDA/Spectrum Thomson Financial 13F
Dedicated Institutional	• The percentage of equity owned by dedicated institutional investors divided by the total common	CDA/Spectrum Thomson Financial

Ownership	shares outstanding	13F
Transient Institutional Ownership Concentration	• The aggregated holdings of transient institutional investors among the top five institutional investors	CDA/Spectrum Thomson Financial 13F
Dedicated Institutional Ownership Concentration	• The aggregated holdings of dedicated institutional investors among the top five institutional investors	CDA/Spectrum Thomson Financial 13F
Transient Institutional Ownership Dispersion	• The total number of transient institutional investors in the institutional ownership structure • Equals 1 if no transient institutional investors controls 5% or more of the firm's outstanding common stock, otherwise 0	CDA/Spectrum Thomson Financial 13F
Dedicated Institutional Ownership Dispersion	• The total number of dedicated institutional investors in the institutional ownership structure • Equals 1 if no dedicated institutional investors controls 5% or more of the firm's outstanding common stock, otherwise 0	CDA/Spectrum Thomson Financial 13F
Founding Family Ownership	• The ratio of the number of shares held by founding family members or representatives to total common shares outstanding • Equals 1 if founding family members hold shares in the firm or when founding family members are present on the board of directors	Proxy Statements & Corporate Histories from Corporate websites, etc.
Non-Founding Family Ownership	• The ratio of the number of shares held by non-founding family members or representatives to total common shares outstanding	Proxy Statements & Corporate Histories from Corporate websites, etc.
Founder-CEO	• Equals 1 if CEO is the founder, otherwise 0.	Proxy Statements & Corporate Histories from Corporate websites, etc.
Descendant-CEO	• Equals 1 if CEO is a descendant of the founder, otherwise 0.	Proxy Statements & Corporate Histories from Corporate websites, etc.
Control Variables – Both Studies:		
Firm Size	• The natural log of the firm's total number of employees	COMPUSTAT
Firm Capital Intensity	• The ratio of property, plant, and equipment to total assets	COMPUSTAT
Liquidity	• The ratio of current assets to current liabilities	COMPUSTAT
Leverage	• The ratio of long-term debt to total assets	COMPUSTAT
R&D Intensity	• The ratio of R&D expenditures to total sales	COMPUSTAT
Firm Sales Growth	• Average growth in firm sales over a three-year period	COMPUSTAT
Return on Assets	• Net income divided by total assets	COMPUSTAT
Return on Equity	• Net income divided by total shareholders' equity	COMPUSTAT
Firm	• Equals 1 if the firm has two or more segments, otherwise	COMPUSTAT

Diversification	0	
Governance Index	• Count of the number of governance rules up to 24 that a firm has	CDA/Spectrum Thomson Financial 13F
Union Relations	• Equals 1 if the firm "has taken exceptional steps to treat its unionized workforce fairly", otherwise 0.	KLD Corporate Social Performance Data
Industry Capital Intensity	• The three-year average ratio of fixed assets to sales for firms in each industry defined at the three-digit SIC level.	COMPUSTAT
Industry Product Differentiation	• The three-year mean of the average ratios of R&D expenditures to total sales or all firms belonging to the sample firms' three-digit SIC industries.	COMPUSTAT

TABLE 2
Descriptive Statistics and Correlations

Variable	Mean	Median	s.d.	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13
1. High Performance HR Practices	1.34	1	0.90	0	4	1												
2. Employee Involvement HR Practices	0.23	0	0.42	0	1	0.63**	1											
3. Cash Profit Sharing	0.15	0	0.36	0	1	0.51**	0.14**	1										
4. Sufficient Retirement Benefits	0.74	1	0.44	0	1	0.52**	0.08**	0.03	1									
5. Work Life Benefits	0.21	0	0.41	0	1	0.55**	0.16**	0.07**	-0.02	1								
6. Founding Family Firm	0.37	0	0.48	0	1	0.01	0.07**	0.01	0.06**	-0.13**	1							
7. Founding Family Ownership Stake	3.46	0	8.51	0	73.9	-0.03	-0.05*	-0.03	0.06**	-0.05*	0.53**	1						
8. Founder CEO	0.10	0	0.30	0	1	-0.00	0.04*	0.01	0.04*	-0.10**	0.44**	0.21**	1					
9. Descendent CEO	0.06	0	0.23	0	1	0.00	-0.04	0.01	0.04*	-0.02	0.32**	0.35**	-0.08**	1				
10. Non-Founding Family Ownership	96.54	100	8.51	26.1	100	0.03	0.05*	0.03	-0.06**	0.05*	-0.53**	-1.00**	-0.21**	-0.35**	1			
11. Transient Institutional Ownership Aggregation	13.87	12.51	6.95	1.42	45.02	-0.10**	-0.01	0.01	-0.03	-0.19**	0.07**	-0.04	0.19**	-0.10**	0.04	1		
12. Dedicated Institutional Ownership Aggregation	10.49	9.38	6.75	0.11	53.43	-0.10**	-0.04*	-0.08**	-0.04*	-0.06**	-0.05*	-0.14**	0.01	-0.09**	0.14**	0.09**	1	
13. Transient Blockholders	0.17	0	0.42	0	3	-0.07**	-0.05*	0.02	-0.01	-0.12**	0.07**	0.04	0.13**	-0.03	-0.04	0.53**	0.04	1
14. Dedicated Blockholders	0.67	1	0.74	0	4	-0.12**	-0.07**	-0.07**	-0.04*	-0.08**	-0.02	-0.09**	0.04	-0.08**	0.09**	0.08**	0.80**	0.05*
15. Transient Institutional Top Five Holdings	2.33	0	3.61	0	25.09	-0.06**	-0.04	0.03	0.04	-0.15**	0.08**	0.04	0.16**	-0.04*	-0.04	0.68**	-0.01	0.78**
16. Dedicated Institutional Top Five Holdings	7.90	6.65	6.66	0	50.42	-0.10**	-0.04	-0.08**	-0.04	-0.07**	-0.03	-0.12**	0.02	-0.09**	0.12**	0.06**	0.96**	0.03
17. Transient Institution Count	112.09	100	47.94	33	336	0.27**	0.19**	0.08**	-0.02	0.35**	-0.04	-0.09**	-0.01	-0.11**	0.09**	-0.04*	-0.06**	-0.16**
18. Dedicated Institution Count	10.47	10	4.45	2	27	0.29**	0.15**	0.04*	0.06**	0.37**	-0.14**	-0.14**	-0.10**	-0.11**	0.14**	-0.30**	0.05*	-0.23**
19. No Transient Blockholders	0.85	1	0.35	0	1	0.07**	0.04	-0.02	0.01	0.11**	-0.06**	-0.04	-0.11**	0.03	0.04	-0.50**	-0.06**	-0.95**
20. No Dedicated Blockholders	0.48	0	0.50	0	1	0.09**	0.06**	0.05*	0.03	0.06**	0.03	0.10**	-0.05*	0.10**	-0.10**	-0.08**	-0.71**	-0.04
21. Firm Size	9.92	9.93	1.28	5.87	14.40	0.06**	-0.03	-0.02	-0.04	0.23**	-0.08**	-0.02	-0.11**	-0.00	0.02	-0.28**	-0.01	-0.18**
22. R&D Intensity	0.05	0.00	0.11	0	2.00	0.16**	0.22**	0.08**	0.04*	0.01	0.13**	-0.01	0.08**	-0.06**	0.01	0.15**	0.00	0.08**
23. Firm Sales Growth	0.23	0.14	0.65	-0.88	12.89	-0.02	0.01	0.01	0.02	-0.09**	0.06**	0.01	0.08**	-0.02	-0.01	0.14**	0.00	0.02
24. Liquidity	1.84	1.48	1.45	0.20	20.50	0.11**	0.16**	0.10**	0.07**	-0.09**	0.16**	0.03	0.18**	-0.01	-0.03	0.26**	0.05*	0.15**
25. Leverage	0.20	0.18	0.15	0	0.90	-0.15**	-0.18**	-0.08**	-0.02	-0.05**	-0.12**	-0.07**	-0.06**	0.01	0.07**	-0.07**	0.12**	-0.03
26. Capital Intensity	0.27	0.20	0.22	0	0.93	-0.11**	-0.14**	0.07**	-0.05*	-0.11**	-0.10**	-0.04*	-0.07**	-0.01	0.04*	-0.09**	0.01	-0.07**
27. Return on Equity (ROE)	0.20	0.14	2.09	-11.34	61.23	-0.04*	0.00	-0.02	-0.04*	-0.03	-0.03	-0.01	-0.02	-0.01	0.01	-0.02	-0.03	0.00
28. Return on Assets (ROA)	0.04	0.04	0.16	-4.58	0.46	-0.02	-0.01	-0.00	-0.03	0.01	-0.01	0.02	-0.10**	0.02	-0.02	0.07**	0.05*	0.00
29. Firm Diversification	0.57	1	0.50	0	1	-0.06**	-0.04*	0.00	-0.06**	-0.02	-0.03	-0.05*	-0.04	0.03	0.05*	-0.02	0.02	-0.03
30. Governance Index	9.77	10	2.51	3	16	-0.09**	-0.07**	-0.06**	-0.02	-0.04	-0.12**	-0.21**	-0.13**	-0.04*	0.21**	-0.04*	0.02	-0.06**
31. Union Relations	0.02	0	0.12	0	1	0.10**	0.05**	0.09**	0.04*	0.03	-0.05*	-0.05*	-0.02	-0.03	0.05*	-0.03	0.06**	-0.03
32. Industry Capital Intensity	1.49	0.59	3.84	0	55.71	-0.04	-0.01	0.04	-0.03	-0.08**	-0.05**	-0.07**	0.02	-0.05**	0.07**	-0.01	0.01	-0.05*
33. Industry Product Differentiation	0.34	0.01	2.00	0	26.56	0.06**	0.12**	-0.03	0.00	0.04*	0.06*	-0.04*	-0.03	-0.04	0.04*	0.04	0.02	0.03

Notes: *p<.05; **p<.01

TABLE 2 cont'
Descriptive Statistics and Correlations

Variable	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
1. High Performance HR Practices																				
2. Employee Involvement HR Practices																				
3. Cash Profit Sharing																				
4. Sufficient Retirement Benefits																				
5. Work Life Benefits																				
6. Founding Family Firm																				
7. Founding Family Ownership Stake																				
8. Founder CEO																				
9. Descendent CEO																				
10. Non-Founding Family Ownership																				
11. Transient Institutional Ownership Aggregation																				
12. Dedicated Institutional Ownership Aggregation																				
13. Transient Blockholders																				
14. Dedicated Blockholders	1																			
15. Transient Institutional Top Five Holdings	0.01	1																		
16. Dedicated Institutional Top Five Holdings	0.83**	-0.02	1																	
17. Transient Institution Count	-0.14**	-0.20**	-0.09**	1																
18. Dedicated Institution Count	-0.08**	-0.28**	-0.01	0.77**	1															
19. No Transient Blockholders	-0.06**	-0.74**	-0.05*	0.17**	0.24**	1														
20. No Dedicated Blockholders	-0.87**	-0.00	-0.73**	0.12**	0.07**	0.05*	1													
21. Firm Size	-0.05*	-0.24**	-0.01	0.41**	0.46**	0.20**	0.04	1												
22. R&D Intensity	-0.00	0.09**	-0.00	0.11**	0.01	-0.07**	-0.01	-0.28**	1											
23. Firm Sales Growth	-0.02	0.06**	-0.01	0.17**	0.09**	-0.01	0.01	-0.08**	-0.01	1										
24. Liquidity	0.04	0.17**	0.06*	0.03	-0.10**	-0.15**	-0.05	-0.37**	0.52**	0.01	1									
25. Leverage	0.09**	-0.04*	0.10**	-0.20**	-0.06**	0.02	-0.11**	0.04*	-0.18**	-0.01	-0.34**	1								
26. Capital Intensity	0.04*	-0.05*	0.02	-0.08**	-0.00	0.07**	-0.07**	0.13**	-0.18**	0.03	-0.33**	0.41**	1							
27. Return on Equity (ROE)	-0.01	-0.00	-0.03	-0.02	-0.03	-0.01	0.00	0.02	-0.04*	-0.03	-0.03	0.05**	0.01	1						
28. Return on Assets (ROA)	-0.00	-0.01	0.03	0.17**	0.13**	0.00	0.02	0.03	-0.27**	-0.14**	-0.10**	-0.04	0.02	0.06**	1					
29. Firm Diversification	0.03	-0.05*	0.01	-0.07**	-0.05*	0.03	-0.04*	0.02	-0.05*	-0.01	-0.12**	0.08**	-0.02	-0.00	-0.05*	1				
30. Governance Index	0.04	-0.06**	0.01	-0.16**	-0.10**	0.05*	-0.03	0.04*	-0.12**	-0.07**	-0.13**	0.06**	0.03	0.03	0.05*	0.12**	1			
31. Union Relations	0.03	-0.02	0.04*	-0.00	0.04*	0.02	-0.04	0.07**	-0.03	-0.03	-0.02	0.04	0.06**	-0.01	-0.01	0.05*	0.03	1		
32. Industry Capital Intensity	0.02	-0.04	-0.00	0.05*	0.03	0.05*	-0.03	-0.19**	-0.03	0.06**	-0.08**	0.10**	0.38**	-0.01	0.01	-0.04*	0.06**	-0.01	1	
33. Industry Product Differentiation	0.01	0.02	0.00	0.10**	0.06**	-0.03	-0.00	-0.11**	0.24**	0.07**	0.11**	-0.08**	-0.03	-0.01	0.02	-0.05*	0.01	-0.02	0.16**	1

Notes: *p<.05; **p<.01

TABLE 3
Cross-Sectional Time-Series Regression, Fixed Effects (DV: High Performance HR Practices)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13
Intercept	-1.425	-1.629	-1.834	-1.635	0.119	-2.759*	-0.095	-2.783*	-2.440†	0.071	-2.442†	-2.815*	-0.309
Firm Size	0.253*	0.260*	0.279*	0.260*	0.260*	0.361**	0.350**	0.364**	0.333**	0.329**	0.334**	0.368**	0.355**
R&D Intensity	0.234	0.226	0.147	0.129	0.226	-0.071	-0.253	-0.239	-0.049	-0.227	-0.224	-0.052	-0.215
Firm Sales Growth	0.004	0.002	0.002	0.004	0.002	-0.001	-0.001	-0.001	0.002	0.003	0.002	-0.001	0.000
Liquidity	-0.025	-0.027	-0.024	-0.027	-0.027	-0.022	-0.025	-0.020	-0.022	-0.022	-0.023	-0.020	-0.019
Leverage	0.517†	0.542*	0.546*	0.519†	0.542*	0.543*	0.559*	0.504†	0.579*	0.583*	0.581*	0.530†	0.546*
Capital Intensity	1.629***	1.555***	1.567***	1.617***	1.555***	1.664***	1.647***	1.663***	1.642***	1.641***	1.644***	1.642***	1.637***
Return on Equity (ROE)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	0.000	0.000	0.000	0.000	0.000
Return on Assets (ROA)	0.020	0.014	0.024	0.009	0.014	0.014	-0.004	-0.023	-0.002	-0.019	-0.014	0.034	0.027
Firm Diversification	0.054	0.047	0.049	0.046	0.047	0.022	0.019	0.021	0.014	0.008	0.013	0.026	0.022
Governance Index	-0.039	-0.034	-0.033	-0.034	-0.034	-0.028	-0.027	-0.028	-0.028	-0.029	-0.027	-0.028	-0.029
Union Relations	0.325†	0.333	0.332	0.389	0.333	0.381	0.381	0.379	0.402	0.400	0.403	0.369	0.366
Industry Capital Intensity	-0.014**	-0.014**	-0.014**	-0.014**	-0.014**	-0.014**	-0.014**	-0.014**	-0.014**	-0.014**	-0.014**	-0.014**	-0.014**
Industry Product Differentiation	0.002	0.003	0.003	0.003	0.003	0.002	0.003	0.003	0.002	0.003	0.003	0.002	0.003
Founder CEO		-0.113	-0.021	-0.119	-0.113	-0.142	-0.132	-0.141	-0.137	-0.133	-0.131	-0.145	-0.140
Descendent CEO		0.109	0.117	-0.048	0.109	0.118	0.131	0.122	0.130	0.132	0.136	0.118	0.119
Founding Family Firm		0.122	0.109	0.130	0.122	0.095	0.097	0.094	0.089	0.094	0.086	0.092	0.099
Founding Family Ownership Stake		0.017*	0.020*	0.016*		0.026*		0.026*	0.026*		0.027*	0.025*	
Founding Family Ownership Stake X Founder CEO			-0.009										
Founding Family Ownership Stake X Descendent CEO				0.010									
Non-Founding Family Ownership					-0.017*		-0.026*			-0.024*			-0.024*
Transient Institutional Ownership (IO) Aggregation						0.001	0.001	0.001					
Dedicated Institutional Ownership (IO) Aggregation						0.003	0.003	0.003					
Non-Founding Family Ownership X Transient IO Aggregation							0.001						
Founding Family Ownership Stake X Dedicated IO Aggregation								0.000					
Transient Blockholders									-0.076†	-0.076†	-0.077†		
Dedicated Blockholders									0.027	0.028	0.026		
Non-Founding Family Ownership X Transient Blockholders										0.002			
Founding Family Ownership Stake X Dedicated Blockholders											-0.002		
Transient Institutional Top Five Holdings												0.004	0.003
Dedicated Institutional Top Five Holdings												0.004	0.004
NonFounding Family Ownership X Transient Institutional Top Five													0.001**
Founding Family Ownership Stake X Dedicated Institutional Top													
Transient Institution Count													
Dedicated Institution Count													
NonFounding Family Ownership X Transient Institution Count													
Founding Family Ownership Stake X Dedicated Institution Count													
No Transient Blockholders													
No Dedicated Blockholders													
NonFounding Family Ownership X No Transient Blockholders													
Founding Family Ownership Stake X No Dedicated Blockholders													
Within R^2	0.038	0.043	0.044	0.044	0.043	0.048	0.049	0.047	0.051	0.050	0.051	0.049	0.050
Between R^2	0.001	0.002	0.002	0.002	0.002	0.001	0.002	0.001	0.001	0.002	0.002	0.001	0.002
Overall R^2	0.001	0.0004	0.001	0.001	0.0004	0.0004	0.001	0.001	0.001	0.001	0.001	0.0004	0.001
F	2.96***	2.97***	2.89***	2.88***	2.97***	2.91***	2.90***	2.74***	3.26***	3.03***	3.13***	2.99***	3.18***
Number of firm-years	1809	1799	1799	1799	1799	1723	1722	1721	1724	1721	1723	1723	1721

Notes: †p<.10; *p<.05; **p<.01; ***p<.001

TABLE 3 cont'
Cross-Sectional Time-Series Regression, Fixed Effects (DV: High Performance HR Practices)

Variable	Model 14	Model 15	Model 16	Model 17	Model 18	Model 19
Intercept	-2.805*	-2.548†	-0.145	-2.670*	-0.097	-2.492†
Firm Size	0.367**	0.351**	0.368**	0.367**	0.329**	0.334**
R&D Intensity	-0.206	-0.262	-0.247	-0.270	-0.204	-0.209
Firm Sales Growth	-0.001	-0.036	-0.040	-0.039	0.003	0.003
Liquidity	-0.021	-0.019	-0.021	-0.021	-0.020	-0.021
Leverage	0.532†	0.501†	0.515†	0.505†	0.579*	0.581*
Capital Intensity	1.647***	1.307**	1.327**	1.320**	1.648***	1.652***
Return on Equity (ROE)	0.000	0.000	0.000	0.000	0.000	0.000
Return on Assets (ROA)	0.020	0.163	0.198	0.188	-0.020	-0.019
Firm Diversification	0.024	0.014	0.024	0.019	0.012	0.014
Governance Index	-0.028	-0.021	-0.021	-0.020	-0.029	-0.029
Union Relations	0.368	0.301	0.282	0.289	0.399	0.401
Industry Capital Intensity	-0.014**	-0.011**	-0.011**	-0.011**	-0.014**	-0.014**
Industry Product Differentiation	0.003	0.003	0.002	0.002	0.003	0.003
Founder CEO	-0.143	-0.143	-0.146	-0.146	-0.131	-0.129
Descendent CEO	0.121	0.114	0.107	0.112	0.122	0.122
Founding Family Firm	0.091	0.078	0.077	0.085	0.095	0.092
Founding Family Ownership Stake	0.025*	0.023*		0.023*		0.025*
Founding Family Ownership Stake X Founder CEO						
Founding Family Ownership Stake X Descendent CEO						
Non-Founding Family Ownership			-0.026*		-0.023*	
Transient Institutional Ownership (IO) Aggregation						
Dedicated Institutional Ownership (IO) Aggregation						
Non-Founding Family Ownership X Transient IO Aggregation						
Founding Family Ownership Stake X Dedicated IO Aggregation						
Transient Blockholders						
Dedicated Blockholders						
Non-Founding Family Ownership X Transient Blockholders						
Founding Family Ownership Stake X Dedicated Blockholders						
Transient Institutional Top Five Holdings	0.004					
Dedicated Institutional Top Five Holdings	0.004					
NonFounding Family Ownership X Transient Institutional Top Five						
Founding Family Ownership Stake X Dedicated Institutional Top	0.000					
Transient Institution Count		-0.003*	-0.003*	-0.003*		
Dedicated Institution Count		0.023*	0.024**	0.024**		
NonFounding Family Ownership X Transient Institution Count			0.000			
Founding Family Ownership Stake X Dedicated Institution Count				0.000		
No Transient Blockholders		0.086†			0.097*	0.096*
No Dedicated Blockholders		-0.023			-0.035	-0.035
NonFounding Family Ownership X No Transient Blockholders					-0.002	
Founding Family Ownership Stake X No Dedicated Blockholders						0.000
Within R^2	0.049	0.062	0.060	0.059	0.052	0.051
Between R^2	0.002	0.002	0.002	0.002	0.002	0.002
Overall R^2	0.001	0.001	0.001	0.001	0.001	0.001
F	2.85***	3.57***	3.45***	3.43***	3.30***	3.17***
Number of firm-years	1722	1722	1722	1722	1722	1722

Notes: †p<.10; *p<.05; **p<.01; ***p<.001

TABLE 4
Cross-Sectional Time-Series Logistic Regression, Random Effects (DV: Employee Involvement HR Practices)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Intercept	-5.920*	-5.840†	-5.663†	-5.824†	-17.734**	-5.969	-20.558**	-5.937	-6.232†	-19.605**
Firm Size	0.229	0.243	0.233	0.237	0.243	0.222	0.212	0.206	0.178	0.172
R&D Intensity	15.946***	14.737***	14.531***	14.692***	14.737***	19.489***	19.372***	19.797***	19.610***	19.488***
Firm Sales Growth	0.517†	0.486†	0.488†	0.492†	0.486†	0.318	0.321	0.319	0.228	0.232
Liquidity	0.068	0.040	0.037	0.043	0.040	0.023	0.017	0.041	0.033	0.031
Leverage	-2.356	-2.242	-2.263	-2.276	-2.242	-2.591	-2.575	-2.673	-2.746	-2.693
Capital Intensity	-1.387	-1.402	-1.354	-1.345	-1.402	-1.171	-1.221	-1.172	-1.000	-1.001
Return on Equity (ROE)	0.033	0.033	0.033	0.033	0.033	0.031	0.032	0.030	0.036	0.036
Return on Assets (ROA)	2.768*	2.646*	2.632*	2.668*	2.646*	2.912	2.836	2.920	2.026	2.017
Firm Diversification	0.070	-0.069	-0.066	-0.064	-0.069	-0.037	-0.042	-0.036	-0.109	-0.108
Governance Index	-0.228*	-0.256*	-0.258*	-0.257*	-0.256*	-0.207	-0.209	-0.216	-0.208	-0.208
Union Relations	3.995*	3.741†	3.739†	3.882†	3.741†	3.724†	3.728†	3.797†	3.817†	3.811†
Industry Capital Intensity	-0.038	-0.040	-0.043	-0.041	-0.040	-0.046	-0.046	-0.047	-0.057	-0.057
Industry Product Differentiation	-0.027	-0.031	-0.030	-0.031	-0.031	-0.046	-0.046	-0.048	-0.057	-0.056
Founder CEO		0.127	-0.385	0.105	0.127	0.762	0.809	0.765	0.824	0.893
Descendent CEO		-0.679	-0.623	-0.154	-0.679	-0.771	-0.778	-0.745	-0.739	-0.766
Founding Family Firm		1.868**	1.971**	1.823**	1.868**	2.104**	2.128**	2.062**	2.061*	2.035*
Founding Family Ownership Stake		-0.119*	-0.139**	-0.107*		-0.141*		-0.1233*	-0.134*	
Founding Family Ownership Stake X Founder CEO			0.076							
Founding Family Ownership Stake X Descendent CEO				-0.075						
Non-Founding Family Ownership					0.119*		0.148*			0.134*
Transient Institutional Ownership (IO) Aggregation						-0.049†	-0.054†	-0.052†		
Dedicated Institutional Ownership (IO) Aggregation						-0.007	-0.007	0.004		
Non-Founding Family Ownership X Transient IO Aggregation							0.003			
Founding Family Ownership Stake X Dedicated IO Aggregation								0.008†		
Transient Blockholders									-1.744***	-1.824***
Dedicated Blockholders									-0.027	-0.029
Non-Founding Family Ownership X Transient Blockholders										0.060
Founding Family Ownership Stake X Dedicated Blockholders										
Transient Institutional Top Five Holdings										
Dedicated Institutional Top Five Holdings										
NonFounding Family Ownership X Transient Institutional Top Five Holdings										
Founding Family Ownership Stake X Dedicated Institutional Top Five Holdings										
Transient Institution Count										
Dedicated Institution Count										
NonFounding Family Ownership X Transient Institution Count										
Founding Family Ownership Stake X Dedicated Institution Count										
No Transient Blockholders										
No Dedicated Blockholders										
NonFounding Family Ownership X No Transient Blockholders										
Founding Family Ownership Stake X No Dedicated Blockholders										
Log-likelihood	-520.789	-513.834	-513.541	-513.691	-513.834	-483.907	-483.793	-482.957	-476.329	-476.152
Wald X^2	41.07***	48.58***	50.57***	48.74***	48.58***	40.63**	40.83**	39.47**	50.92***	52.16***
Number of firm-years	1813	1802	1802	1802	1802	1725	1725	1725	1725	1725

Notes: †p<.10; *p<.05; **p<.01; ***p<.001

TABLE 4 cont'
Cross-Sectional Time-Series Logistic Regression, Random Effects (DV: Employee Involvement HR Practices)

Variable	Model 11	Model 12	Model 13	Model 14	Model 15	Model 16	Model 17	Model 18	Model 19
Intercept	-6.496†	-5.828	-19.654**	-5.834	-8.259*	-19.249**	-6.976†	-22.880**	-8.024*
Firm Size	0.176	0.166	0.148	0.151	0.184	0.186	0.166	0.174	0.158
R&D Intensity	20.483***	19.733***	19.733**	20.070**	20.252**	19.371***	19.518***	19.548***	19.662**
Firm Sales Growth	0.234	0.272	0.297	0.271	0.263	0.261	0.278	0.246	0.237
Liquidity	0.058	0.023	0.029	0.035	0.032	-0.039	-0.033	0.027	0.058
Leverage	-2.803	-2.345	-2.264	-2.468	-2.791	-2.781†	-2.841†	-2.682	-2.812
Capital Intensity	-0.947	-1.081	-1.036	-1.067	-1.090	-1.017	-1.050	-1.017	-0.911
Return on Equity (ROE)	0.036	0.032	0.033	0.031	0.037	-0.208	-0.217	0.036	0.037
Return on Assets (ROA)	2.077	2.312	2.181	2.363	2.247	3.287†	3.182	2.025	1.954
Firm Diversification	-0.112	-0.106	-0.111	-0.090	-0.082	-0.007	-0.049	-0.075	-0.080
Governance Index	-0.215	-0.217	-0.219	-0.225†	-0.206	-0.182	-0.180	-0.204	-0.206
Union Relations	3.889†	3.826†	3.835†	3.911†	3.752	3.727†	3.839†	3.807†	3.873†
Industry Capital Intensity	-0.059	-0.058	-0.059	-0.060	-0.052	-0.047	-0.049	-0.055	-0.060
Industry Product Differentiation	-0.057	-0.047	-0.048	-0.050	-0.055	-0.047	-0.051	-0.055	-0.057
Founder CEO	0.781	0.861	1.099	0.845	0.825	0.760	0.822	0.895	0.824
Descendent CEO	-0.753	-0.743	-0.795	-0.709	-0.783	-0.617	-0.543	-0.741	-0.733
Founding Family Firm	2.109*	2.039*	2.028*	2.024*	2.095*	2.042**	2.053**	2.027*	2.028*
Founding Family Ownership Stake	-0.128*	-0.133*		-0.123*	-0.132*		-0.117*		-0.124*
Founding Family Ownership Stake X Founder CEO									
Founding Family Ownership Stake X Descendent CEO									
Non-Founding Family Ownership			0.139*			0.122*		0.148*	
Transient Institutional Ownership (IO) Aggregation									
Dedicated Institutional Ownership (IO) Aggregation									
Non-Founding Family Ownership X Transient IO Aggregation									
Founding Family Ownership Stake X Dedicated IO Aggregation									
Transient Blockholders	-1.743***								
Dedicated Blockholders	0.079								
Non-Founding Family Ownership X Transient Blockholders									
Founding Family Ownership Stake X Dedicated Blockholders	0.068†								
Transient Institutional Top Five Holdings		-0.142**	-0.169**	-0.141**					
Dedicated Institutional Top Five Holdings		-0.007	-0.007	0.007					
NonFounding Family Ownership X Transient Institutional Top Five Holdings			0.017						
Founding Family Ownership Stake X Dedicated Institutional Top Five Holdings				0.009†					
Transient Institution Count					-0.003	-0.001	-0.002		
Dedicated Institution Count					0.028	0.054	0.071		
NonFounding Family Ownership X Transient Institution Count						-0.001			
Founding Family Ownership Stake X Dedicated Institution Count							0.012		
No Transient Blockholders					1.865**			1.929***	1.861**
No Dedicated Blockholders					-0.117			-0.113	-0.244
NonFounding Family Ownership X No Transient Blockholders								-0.026	
Founding Family Ownership Stake X No Dedicated Blockholders									-0.061†
Log-likelihood	-475.452	-481.081	-479.941	-479.899	-477.387	-483.547	-482.925	-477.222	-475.407
Wald X^2	45.09**	42.89**	42.85**	41.09**	44.67**	40.11**	41.64**	51.64***	50.68***
Number of firm-years	1725	1725	1725	1725	1725	1724	1724	1725	1725

Notes: †p<.10; *p<.05; **p<.01; ***p<.001

TABLE 5
Curvilinear Relationship
Cross-Sectional Time-Series Logistic Regression, Random Effects (DV: Employee Involvement HR Practices)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Intercept	-5.92*	-5.84†	-5.72†	-5.29†	-4.95	-17.73**	6.86
Firm Size	0.23	0.24	0.27	0.26	0.27	0.24	0.27
R&D Intensity	15.95***	14.74***	15.85***	15.39***	15.80***	14.74***	15.33***
Firm Sales Growth	0.52†	0.49†	0.49†	0.49†	0.50†	0.49†	0.49†
Liquidity	0.07	0.04	0.05	0.05	0.05	0.04	0.04
Leverage	-2.36	-2.24	-2.38	-2.33	-2.38	-2.24	-2.29
Capital Intensity	-1.39	-1.40	-1.09	-1.07	-1.02	-1.40	-1.17
Return on Equity (ROE)	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Return on Assets (ROA)	2.79*	2.65*	2.83*	2.88*	2.88*	2.646*	2.742*
Firm Diversification	0.07	-0.07	-0.08	-0.08	-0.12	-0.07	-0.10
Governance Index	-0.23*	-0.26*	-0.26*	-0.26*	-0.26*	-0.26*	-0.26*
Union Relations	4.00*	3.74†	3.76†	3.78†	4.09*	3.74†	3.72†
Industry Capital Intensity	-0.04	-0.04	-0.03	-0.03	-0.03	-0.04	-0.04
Industry Product Differentiation	-0.03	-0.03	-0.02	-0.02	-0.02	-0.03	-0.03
Founder CEO		0.13	0.18	-0.31	0.06	0.13	-0.04
Descendent CEO		-0.68	-0.58	-0.52	-0.77	-0.68	-0.83
Founding Family Firm		1.87**				1.87**	1.16
Founding Family Ownership Stake		-0.12*	0.23*	0.21†	0.06		
Founding Family Ownership Stake2			-0.02**	-0.02*	-0.01*		
Founding Family Ownership Stake X FounderCEO				-0.08			
Founding Family Ownership Stake2 X Founder CEO				0.01			
Founding Family Ownership Stake X Descendent CEO					-0.22*		
Founding Family Ownership Stake2 X DescendentCEO					0.01*		
Non-Founding Family Ownership Stake						0.12*	-0.13
Non-Founding Family Ownership Stake2							-0.01*
Log-likelihood	-520.79	-513.83	-513.05	-511.84	-511.82	-513.83	-511.86
Wald X^2	41.07***	48.58***	50.32***	48.07***	53.54***	48.58***	51.82***
Number of firm-years	1813	1802	1802	1802	1802	1802	1802

Notes: †p<.10; *p<.05; **p<.01; ***p<.001, two-tailed tests

TABLE 6
Cross-Sectional Time-Series Logistic Regression, Random Effects (DV: Cash Profit Sharing)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Intercept	-9.467*	-8.216*	-8.640*	-8.512*	-6.244	-8.195*	-5.329	-7.955*	-8.076*	-5.095
Firm Size	-0.164	-0.261	-0.264	-0.261	-0.188	-0.095	-0.098	-0.107	-0.130	-0.120
R&D Intensity	0.342	-0.086	-0.300	-0.405	0.592	7.085	6.951	7.079†	6.509	6.505
Firm Sales Growth	-0.409	-0.078	-0.089	-0.096	-0.416	-0.418	-0.422	-0.431	-0.384	-0.356
Liquidity	0.692**	0.643**	0.647**	0.629**	0.727**	0.804**	0.793**	0.808**	0.820**	0.829**
Leverage	-3.587†	-3.417	-3.386	-3.321	-3.543	-3.800†	-3.759†	-3.868†	-3.700†	-3.586†
Capital Intensity	5.507**	5.758***	5.874***	5.773***	5.500	5.618**	5.519**	5.574**	5.512**	5.454**
Return on Equity (ROE)	-0.162	-0.177	-0.177	-0.176	-0.152	-0.079	-0.081	-0.104	-0.094	-0.092
Return on Assets (ROA)	-0.703	-0.695	-0.698	-0.701	-1.075	-1.613	-1.664	-1.549	-1.870	-1.876
Firm Diversification	0.104	0.053	0.054	0.036	0.097	0.176	0.171	0.179	0.131	0.120
Governance Index	-0.036	-0.044	-0.039	-0.033	-0.062	-0.088	-0.087	-0.093	-0.088	-0.095
Union Relations	3.142	2.928	2.993	2.963	2.966	3.092	3.083	3.112	2.932	2.924
Industry Capital Intensity	-0.078	-0.120	-0.125	-0.126	-0.078	-0.058	-0.056	-0.058	-0.059	-0.058
Industry Product Differentiation	-0.067	-0.049	-0.052	-0.052	-0.066	-0.164	-0.165	-0.167	-0.148	-0.150
Founder CEO		-0.800	-1.054	-1.040	-0.981	-1.767	-1.731	-1.826	-1.671	-1.655
Descendent CEO		-1.087	-1.640	-2.431	-1.169	-0.934	-1.021	-0.870	-0.988	-0.964
Founding Family Firm		-0.858			-0.890	-1.217	-1.176	-1.211	-1.222	-1.207
Founding Family Ownership Stake		0.025	0.013	-0.006		0.031		0.037	0.034	
Founding Family Ownership Stake X Founder CEO			-0.012							
Founding Family Ownership Stake X Descendent CEO				0.078						
Non-Founding Family Ownership					-0.026		-0.027			-0.030
Transient Institutional Ownership (IO) Aggregation						0.016	0.014	0.014		
Dedicated Institutional Ownership (IO) Aggregation						-0.077*	-0.076*	-0.075*		
Non-Founding Family Ownership X Transient IO Aggregation							0.002			
Founding Family Ownership Stake X Dedicated IO Aggregation								0.003		
Transient Blockholders									-0.080	-0.194
Dedicated Blockholders									-0.498†	-0.489†
Non-Founding Family Ownership X Transient Blockholders										0.020
Founding Family Ownership Stake X Dedicated Blockholders										
Transient Institutional Top Five Holdings										
Dedicated Institutional Top Five Holdings										
NonFounding Family Ownership X Transient Institutional Top Five										
Founding Family Ownership Stake X Dedicated Institutional Top Five										
Transient Institution Count										
Dedicated Institution Count										
NonFounding Family Ownership X Transient Institution Count										
Founding Family Ownership Stake X Dedicated Institution Count										
No Transient Blockholders										
No Dedicated Blockholders										
NonFounding Family Ownership X No Transient Blockholders										
Founding Family Ownership Stake X No Dedicated Blockholders										
Log-likelihood	-407.80	-407.58	-407.91	-407.63	-405.84	-389.45	-389.32	-389.24	-390.08	-389.44
Wald X^2	21.03†	27.99*	27.09†	24.06	21.79	30.97*	31.17†	31.80*	30.49*	30.29†
Number of firm-years	1810	1802	1802	1802	1799	1722	1721	1722	1722	1721

Notes: †p<.10; *p<.05; **p<.01; ***p<.001

TABLE 6 cont'
Cross-Sectional Time-Series Logistic Regression, Random Effects (DV: Cash Profit Sharing)

Variable	Model 11	Model 12	Model 13	Model 14	Model 15	Model 16	Model 17	Model 18	Model 19
Intercept	-8.316*	-8.373*	-5.678	-8.368*	-7.155†	-3.430	-6.967†	-7.391	-9.117*
Firm Size	-0.118	-0.081	-0.085	-0.091	-0.467	-0.434	-0.476	-0.109	-0.101
R&D Intensity	6.533	6.909	6.951	6.928	3.223	3.447	3.637	6.822	6.969
Firm Sales Growth	-0.380	-0.398	-0.384	-0.420	-0.604	-0.670	-0.666	-0.342	-0.345**
Liquidity	0.826**	0.815**	0.814**	0.814**	0.785**	0.770**	0.760**	0.823**	0.826†
Leverage	-3.715†	-4.334*	-3.873†	-4.013†	-2.964	-3.439	-3.597	-3.560†	-3.590**
Capital Intensity	5.590**	5.585**	5.458**	5.507**	5.528**	5.218**	5.181**	5.456**	5.563
Return on Equity (ROE)	-0.087	-0.044	-0.081	-0.096	-0.104	-0.132	-0.133	-0.086	-0.076
Return on Assets (ROA)	-1.848	-1.712	-1.468	-1.394	-2.747	-2.605	-2.684	-1.777	-1.804
Firm Diversification	0.137	0.198	0.186	0.206	0.118	0.148	0.127	0.140	0.151
Governance Index	-0.088	-0.079	-0.087	-0.080	-0.056	-0.042	-0.040	-0.098	-0.102
Union Relations	2.919	3.043	3.027	3.036	2.903	2.863	2.957	2.945	2.935
Industry Capital Intensity	-0.060	-0.045	-0.045	-0.045	-0.100	-0.052	-0.051	-0.055	-0.058
Industry Product Differentiation	-0.149	-0.172	-0.172	-0.172	-0.194	-0.230	-0.237	-0.155	-0.158
Founder CEO	-1.678	-1.852	-1.828	-1.896	-1.587	-1.560	-1.458	-1.653	-1.664
Descendent CEO	-1.217	-0.954	-0.950	-1.147	-0.708	-0.610	-0.293	-0.937	-1.035
Founding Family Firm	-1.188	-1.170	-1.155	-1.132	-1.166	-1.193	-1.403	-1.229	-1.215
Founding Family Ownership Stake	0.029	0.029		0.034	0.040		0.070		0.027
Founding Family Ownership Stake X Founder CEO									
Founding Family Ownership Stake X Descendent CEO									
Non-Founding Family Ownership			-0.027			-0.038		-0.015	
Transient Institutional Ownership (IO) Aggregation									
Dedicated Institutional Ownership (IO) Aggregation									
Non-Founding Family Ownership X Transient IO Aggregation									
Founding Family Ownership Stake X Dedicated IO Aggregation									
Transient Blockholders	-0.059								
Dedicated Blockholders	-0.528†								
Non-Founding Family Ownership X Transient Blockholders									
Founding Family Ownership Stake X Dedicated Blockholders	-0.020								
Transient Institutional Top Five Holdings		0.041	0.035	0.043					
Dedicated Institutional Top Five Holdings		-0.075*	-0.073*	-0.073*					
NonFounding Family Ownership X Transient Institutional Top Five			0.001						
Founding Family Ownership Stake X Dedicated Institutional Top Five				0.002					
Transient Institution Count					0.010	0.012	0.012		
Dedicated Institution Count					0.058	0.048	0.066		
NonFounding Family Ownership X Transient Institution Count						0.000			
Founding Family Ownership Stake X Dedicated Institution Count							0.015		
No Transient Blockholders					-0.099			0.153	0.073
No Dedicated Blockholders					0.438			0.493	0.515
NonFounding Family Ownership X No Transient Blockholders								-0.023	
Founding Family Ownership Stake X No Dedicated Blockholders									0.011
Log-likelihood	-389.84	-388.69	-388.60	-388.84	-389.46	-388.79	-387.58	-390.11	-390.11
Wald X^2	30.42†	33.08*	31.85*	32.65*	32.80*	33.20*	34.68*	29.42†	29.42†
Number of firm-years	1721	1721	1721	1721	1723	1721	1721	1721	1720

Notes: †p<.10; *p<.05; **p<.01; ***p<.001

TABLE 7
Cross-Sectional Time-Series Logistic Regression, Fixed Effects (DV: Sufficient Retirement Benefits)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Firm Size	3.162***	3.468***	3.466***	3.403***	3.468***	3.968***	3.870***	3.988***	3.798***	3.710***
R&D Intensity	-4.436	-5.345	-5.371	-5.356	-5.345	-5.945	-6.335	-5.901	-6.304	-6.562
Firm Sales Growth	0.148	0.136	0.136	0.137	0.136	0.057	0.069	0.059	0.072	0.087
Liquidity	-0.455†	-0.468†	-0.467†	-0.472†	-0.468†	-0.517*	-0.500†	-0.513*	-0.491†	-0.480†
Leverage	3.955**	3.770**	3.778**	3.757**	3.770**	3.998**	4.008**	4.002**	4.029**	4.194**
Capital Intensity	12.236***	12.092***	12.087***	12.012***	12.092***	11.498***	11.553***	11.491***	11.462***	11.418***
Return on Equity (ROE)	-0.006	-0.005	-0.005	-0.005	-0.005	-0.029	-0.004	-0.028	-0.005	-0.005
Return on Assets (ROA)	-0.323	-0.079	-0.073	-0.090	-0.079	1.181	0.606	1.185	0.338	0.337
Firm Diversification	-0.023	-0.087	-0.087	-0.093	-0.087	-0.149	-0.200	-0.162	-0.157	-0.141
Governance Index	-0.225	-0.139	-0.139	-0.141	-0.139	-0.150	-0.147	-0.145	-0.151	-0.150
Union Relations	9.732	25.367	25.858	25.408	25.367	26.382	28.219	26.373	25.444	26.452
Industry Capital Intensity	-0.080	-0.081	-0.081	-0.081	-0.081	-0.078	-0.074	-0.077	-0.083	-0.081
Industry Product Differentiation	0.123	0.122	0.122	0.122	0.122	0.125	0.121	0.125	0.127	0.127
Founder CEO		-0.259	-0.215	-0.219	-0.259	-1.214	-1.014	-1.255	-1.247	-1.310
Descendent CEO		14.390	14.631	13.742	14.390	14.887	15.886	14.890	14.545	15.064
Founding Family Firm		1.592	1.589	1.614	1.592	1.239	1.346	1.235	1.253	1.282
Founding Family Ownership Stake		0.137*	0.137*	0.119†		0.320**		0.323**	0.321**	
Founding Family Ownership Stake X Founder CEO			-0.005							
Founding Family Ownership Stake X Descendent CEO				0.554						
Non-Founding Family Ownership					-0.137*		-0.296*			-0.337**
Transient Institutional Ownership (IO) Aggregation						0.028	0.014	0.028		
Dedicated Institutional Ownership (IO) Aggregation						0.035	0.036	0.030		
Non-Founding Family Ownership X Transient IO Aggregation							0.008			
Founding Family Ownership Stake X Dedicated IO Aggregation								-0.003		
Transient Blockholders									-0.151	-0.438
Dedicated Blockholders									0.231	0.242
Non-Founding Family Ownership X Transient Blockholders										0.122
Founding Family Ownership Stake X Dedicated Blockholders										
Transient Institutional Top Five Holdings										
Dedicated Institutional Top Five Holdings										
NonFounding Family Ownership X Transient Institutional Top Five Holdings										
Founding Family Ownership Stake X Dedicated Institutional Top Five Holdings										
Transient Institution Count										
Dedicated Institution Count										
NonFounding Family Ownership X Transient Institution Count										
Founding Family Ownership Stake X Dedicated Institution Count										
No Transient Blockholders										
No Dedicated Blockholders										
NonFounding Family Ownership X No Transient Blockholders										
Founding Family Ownership Stake X No Dedicated Blockholders										
Log-likelihood	-327.258	-318.261	-318.260	-317.421	-318.261	-303.865	-303.368	-303.752	-304.889	-303.944
Wald X^2	86.12***	104.12***	104.12***	102.58***	104.12***	110.38***	112.39***	110.60***	109.35***	111.24***
Number of firm-years	892	892	892	887	892	864	865	864	865	865

Notes: †p<.10; *p<.05; **p<.01; ***p<.001

TABLE 7 cont'
Cross-Sectional Time-Series Logistic Regression, Fixed Effects (DV: Sufficient Retirement Benefits)

Variable	Model 11	Model 12	Model 13	Model 14	Model 15	Model 16	Model 17	Model 18	Model 19
Firm Size	3.835***	4.036***	3.956***	4.048***	3.391***	3.433***	3.405***	3.658***	3.811***
R&D Intensity	-6.226	-6.272	-6.287	-6.286	-7.503	-7.724	-8.301	-6.627	-5.879
Firm Sales Growth	0.076	0.062	0.066	0.064	0.053	0.051	0.064	0.070	0.055
Liquidity	-0.494†	-0.435†	-0.421	-0.433†	-0.498†	-0.465†	-0.433	-0.482†	-0.540*
Leverage	4.068**	3.903*	3.930*	3.909*	4.423**	4.396**	4.422**	4.107**	4.041**
Capital Intensity	11.418***	11.221***	11.135***	11.227***	10.539***	10.723***	10.827***	11.446***	11.387***
Return on Equity (ROE)	-0.004	-0.004	-0.004	-0.004	-0.032	-0.030	0.000	-0.005	-0.033
Return on Assets (ROA)	0.445	0.905	0.918	0.900	1.195	1.210	0.373	0.194	1.174
Firm Diversification	-0.135	-0.006	-0.009	-0.007	-0.075	-0.049	-0.060	-0.175	-0.149
Governance Index	-0.148	-0.164	-0.165	-0.163	-0.132	-0.141	-0.143	-0.148	-0.138
Union Relations	28.007	26.585	28.129	26.578	25.279	26.771	26.019	25.320	26.195
Industry Capital Intensity	-0.083	-0.077	-0.077	-0.077	-0.084	-0.084	-0.082	-0.084	-0.087†
Industry Product Differentiation	0.130	0.117	0.116	0.117	0.139	0.136	0.136	0.128	0.132
Founder CEO	-1.221	-1.199	-1.120	-1.219	-1.315	-1.331	-1.340	-1.305	-1.122
Descendent CEO	15.840	15.102	15.859	15.105	15.040	15.775	15.507	14.410	14.753
Founding Family Firm	1.235	1.209	1.229	1.209	1.352	1.350	1.366	1.363	1.354
Founding Family Ownership Stake	0.316*	0.309*		0.308*	0.269*		0.259*		0.323*
Founding Family Ownership Stake X Founder CEO									
Founding Family Ownership Stake X Descendent CEO									
Non-Founding Family Ownership			-0.307*			-0.268*		-0.303*	
Transient Institutional Ownership (IO) Aggregation									
Dedicated Institutional Ownership (IO) Aggregation									
Non-Founding Family Ownership X Transient IO Aggregation									
Founding Family Ownership Stake X Dedicated IO Aggregation									
Transient Blockholders	-0.142								
Dedicated Blockholders	0.172								
Non-Founding Family Ownership X Transient Blockholders									
Founding Family Ownership Stake X Dedicated Blockholders	-0.029								
Transient Institutional Top Five Holdings		0.068*	0.060†	0.068*					
Dedicated Institutional Top Five Holdings		0.037†	0.037†	0.034					
NonFounding Family Ownership X Transient Institutional Top Five Holdings			0.005						
Founding Family Ownership Stake X Dedicated Institutional Top Five Holdings				-0.001					
Transient Institution Count					-0.021***	-0.022***	-0.020***		
Dedicated Institution Count					0.250***	0.249***	0.256***		
NonFounding Family Ownership X Transient Institution Count						0.000			
Founding Family Ownership Stake X Dedicated Institution Count							0.002		
No Transient Blockholders					0.297			0.481	0.277
No Dedicated Blockholders					-0.173			-0.188	-0.097
NonFounding Family Ownership X No Transient Blockholders								-0.048	
Founding Family Ownership Stake X No Dedicated Blockholders									0.029
Log-likelihood	-304.619	-302.849	-302.356	-302.830	-286.209	-286.957	-287.899	-304.846	-303.729
Wald X^2	109.89***	113.43***	114.42***	113.47***	145.69***	144.19***	143.33***	106.22***	110.65***
Number of firm-years	865	865	865	865	864	864	865	860	864

Notes: †p<.10; *p<.05; **p<.01; ***p<.001

TABLE 8
Cross-Sectional Time-Series Logistic Regression, Random Effects (DV: Work Life Benefits)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Intercept	-32.364***	-27.032**	-26.954***	-32.737***	-26.876**	-29.895***	-20.576**	-29.279***	-33.448***	-30.299***
Firm Size	1.812**	1.849**	1.771**	2.158***	2.067***	1.968***	2.532***	1.890**	2.071***	2.692***
R&D Intensity	14.170**	15.032**	16.188**	21.094***	15.735***	30.322***	35.225***	30.313***	30.243***	33.851**
Firm Sales Growth	-1.563*	-1.496*	-1.444*	-1.778*	-1.529*	-1.397*	-1.425*	-1.468*	-1.410*	-1.455*
Liquidity	-0.759†	-0.905	-0.699	-0.841†	-0.883*	-0.693	-0.749	-0.713	-0.530	-0.602
Leverage	0.047	1.418	2.226	1.992	2.001	2.466	2.050	2.246	2.639	2.458
Capital Intensity	-0.820	-2.047	-1.600	-0.777	-2.330	-0.151	-0.313	-0.132	0.363	0.067
Return on Equity (ROE)	-0.485	-0.611	-0.643	-0.539	-0.585	-0.515	-0.484	-0.506	-0.533	-0.517
Return on Assets (ROA)	6.158*	6.323†	6.505*	18.557***	6.339†	17.422***	20.235***	17.474***	17.803***	18.957***
Firm Diversification	1.384	1.360	1.062	1.458	1.430	1.213	1.298	1.089	1.168	1.363
Governance Index	-0.234	-0.270	-0.300	-0.210	-0.292	-0.129	-0.196	-0.132	-0.116	-0.161
Union Relations	0.013	0.021	0.008	0.008	1.071	0.025	1.080	2.125	0.029	2.082
Industry Capital Intensity	-0.413	-0.480	-0.331	-0.510	-0.421	-0.515	-0.416	-0.555	-0.559	-0.460
Industry Product Differentiation	0.291†	0.318	0.262	0.326†	0.313†	0.261	0.281	0.263	0.269	0.275
Founder CEO		0.079	-1.760	0.377	0.115	-0.379	-0.333	-0.575	-0.492	-0.639
Descendent CEO		-3.228*	-4.736*	-3.057	-4.807*	-4.008*	-5.335	-3.422	-4.134*	-3.569†
Founding Family Firm		-1.359	-1.352	-1.743	-1.572	-2.930*	-4.122*	-2.983†	-3.056*	-3.706*
Founding Family Ownership Stake		0.020	-0.014	0.022		0.109*		0.108†	0.129*	
Founding Family Ownership Stake X Founder CEO			0.129							
Founding Family Ownership Stake X Descendent CEO				-0.001						
Non-Founding Family Ownership					-0.026		-0.151*			-0.093
Transient Institutional Ownership (IO) Aggregation						-0.072	-0.121†	-0.084		
Dedicated Institutional Ownership (IO) Aggregation						-0.027	-0.067	-0.036		
Non-Founding Family Ownership X Transient IO Aggregation							-0.007			
Founding Family Ownership Stake X Dedicated IO Aggregation								0.012		
Transient Blockholders									-0.213	-0.634
Dedicated Blockholders									0.518	0.391
Non-Founding Family Ownership X Transient Blockholders										-0.058
Founding Family Ownership Stake X Dedicated Blockholders										
Transient Institutional Top Five Holdings										
Dedicated Institutional Top Five Holdings										
NonFounding Family Ownership X Transient Institutional Top Five Holdings										
Founding Family Ownership Stake X Dedicated Institutional Top Five Holdings										
Transient Institution Count										
Dedicated Institution Count										
NonFounding Family Ownership X Transient Institution Count										
Founding Family Ownership Stake X Dedicated Institution Count										
No Transient Blockholders										
No Dedicated Blockholders										
NonFounding Family Ownership X No Transient Blockholders										
Founding Family Ownership Stake X No Dedicated Blockholders										
Log-likelihood	-280.496	-23.947	-280.755	-274.544	-280.155	-263.947	-264.101	-263.465	-263.444	-265.316
Wald X^2	16.62	28.43*	33.63*	53.55***	41.69***	55.44***	60.54***	35.55*	66.69***	54.07***
Number of firm-years	1809	1799	1799	1798	1799	1723	1722	1723	1722	1720

Notes: †p<.10; *p<.05; **p<.01; ***p<.001

TABLE 8 cont'
Cross-Sectional Time-Series Logistic Regression, Random Effects (DV: Work Life Benefits)

Variable	Model 11	Model 12	Model 13	Model 14	Model 15	Model 16	Model 17	Model 18	Model 19
Intercept	-35.947***	-38.825***	-22.742**	-31.874***	-28.749***	-20.252**	-26.861***	-20.706*	-31.766***
Firm Size	2.390***	2.616**	1.980***	1.880***	1.189*	1.651**	1.211*	2.112***	2.021***
R&D Intensity	31.803***	33.014**	29.414***	25.125***	20.373***	29.227***	14.930***	29.822***	28.127***
Firm Sales Growth	-1.472*	-1.529*	-1.379*	-1.711*	-2.512**	-2.113*	-1.958*	-1.480*	-1.432*
Liquidity	-0.530	-0.643	-0.588	-0.567	-0.616	-0.826†	-0.559	-0.457	-0.386
Leverage	1.829	2.697	2.547	2.161	2.983	2.994	2.804	2.358	2.322
Capital Intensity	0.318	-0.066	0.713	-1.452	1.284	1.484	1.019	0.379	0.300
Return on Equity (ROE)	-0.515	-0.513	-0.559	-0.466	-0.533	-0.549	-0.533	-0.527	-0.496
Return on Assets (ROA)	18.020***	19.029**	17.351***	14.910*	14.115**	16.168*	13.041**	16.609***	15.701***
Firm Diversification	1.269	1.797	1.290	1.528	1.591†	1.756†	1.321	1.217	1.152
Governance Index	-0.139	-0.183	-0.176	-0.257	-0.093	-0.132	-0.144	-0.142	-0.128
Union Relations	1.998	0.024	1.962	2.804	0.005	0.599	1.615	2.250	2.218
Industry Capital Intensity	-0.389	-0.585	-0.576	-0.548	-0.814†	-0.867†	-0.843†	-0.490	-0.446
Industry Product Differentiation	0.255	0.348	0.270	0.282	0.362*	0.368*	0.345†	0.239	0.232
Founder CEO	-0.755	-0.216	-0.573	-0.920	0.306	-0.056	-0.262	-0.729	-0.629
Descendent CEO	-3.882†	-4.939	-3.865*	-4.207*	-4.911**	-5.040*	-4.407*	-3.871*	-3.661*
Founding Family Firm	-3.695**	-4.004*	-2.597†	-2.825*	-3.821**	-3.759*	-2.223	-2.779*	-2.876*
Founding Family Ownership Stake	0.134*	0.129		0.043	0.166**		0.053		0.096†
Founding Family Ownership Stake X Founder CEO									
Founding Family Ownership Stake X Descendent CEO									
Non-Founding Family Ownership			-0.086			-0.135*		-0.121	
Transient Institutional Ownership (IO) Aggregation									
Dedicated Institutional Ownership (IO) Aggregation									
Non-Founding Family Ownership X Transient IO Aggregation									
Founding Family Ownership Stake X Dedicated IO Aggregation									
Transient Blockholders	-0.412								
Dedicated Blockholders	0.362								
Non-Founding Family Ownership X Transient Blockholders									
Founding Family Ownership Stake X Dedicated Blockholders	0.041								
Transient Institutional Top Five Holdings		-0.075	-0.069	-0.067					
Dedicated Institutional Top Five Holdings		-0.025	-0.005	-0.014					
NonFounding Family Ownership X Transient Institutional Top Five Holdings			-0.007						
Founding Family Ownership Stake X Dedicated Institutional Top Five Holdings				0.006					
Transient Institution Count					0.037***	0.033**	0.027*		
Dedicated Institution Count					0.169†	0.149	0.037		
NonFounding Family Ownership X Transient Institution Count						0.002†			
Founding Family Ownership Stake X Dedicated Institution Count							-0.018		
No Transient Blockholders					0.113			0.274	0.399
No Dedicated Blockholders					-1.334*			-1.116	-1.104†
NonFounding Family Ownership X No Transient Blockholders								0.038	
Founding Family Ownership Stake X No Dedicated Blockholders									-0.034
Log-likelihood	-266.649	-265.736	-264.333	-265.187	-264.024	-262.830	-264.008	-263.709	-264.561
Wald X^2	54.86***	34.34*	54.38***	54.01***	117.82***	106.13***	49.90***	55.02***	56.63***
Number of firm-years	1722	1722	1721	1722	1723	1720	1723	1721	1721

Notes: †p<.10; *p<.05; **p<.01; ***p<.001

TABLE 9

Cross-Sectional Time-Series Tobit Regression Random Effects (DV: High Performance HR Practices)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Intercept	0.60	0.50	0.64	0.65	0.42	0.49	0.17	0.18	0.47	0.25
Firm Size	0.07*	0.08*	0.07†	0.07†	0.08*	0.08*	0.10**	0.10**	0.08*	0.10*
R&D Intensity	1.78***	1.89***	1.29***	1.28***	1.89***	1.49***	2.65***	2.67***	1.49***	2.66***
Firm Sales Growth	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
Liquidity	-0.01	-0.01	0.00	-0.01	-0.01	0.03	0.02	0.03	0.03	0.03
Leverage	-0.04	0.01	-0.01	-0.03	0.01	0.01	0.08	0.01	0.06	0.12
Capital Intensity	0.42*	0.43*	0.40†	0.42*	0.43*	0.44*	0.50*	0.51*	0.44*	0.49*
Return on Equity (ROE)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Return on Assets (ROA)	0.08	0.10	0.05	0.04	0.10	-0.01	0.17	0.13	-0.03	0.16
Firm Diversification	0.03	0.03	0.03	0.03	0.03	0.05	0.06	0.06	0.05	0.05
Governance Index	-0.04*	-0.03*	-0.04*	-0.04*	-0.03*	-0.03*	-0.03†	-0.03†	-0.03*	-0.03*
Union Relations	0.55*	0.57*	0.56*	0.60*	0.57*	0.57*	0.60*	0.60*	0.58*	0.60*
Industry Capital Intensity	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*	-0.01†	-0.01†	-0.01*	-0.01†
Industry Product Differentiation	0.01	0.01	0.02	0.02	0.01	0.02	0.01	0.01	0.02	0.01
Founder CEO		0.02	0.00	0.02	0.02	0.01	0.02	0.00	0.01	0.00
Descendent CEO		0.09	0.09	0.04	0.09	0.08	0.09	0.10	0.08	0.10
Founding Family Firm		0.10	0.11	0.10	0.10	0.09	0.06	0.06	0.08	0.06
Founding Family Ownership Stake		0.00	0.00	0.00		0.00		0.00	0.00	
Founding Family Ownership Stake X Founder CEO			0.00							
Founding Family Ownership Stake X Descendent CEO				0.00						
Non-Founding Family Ownership					0.00		0.00			-0.00
Transient Institutional Ownership (IO) Aggregation						0.00	0.00	0.00		
Dedicated Institutional Ownership (IO) Aggregation						0.00	0.00	0.00		
Non-Founding Family Ownership X Transient IO Aggregation							0.00			
Founding Family Ownership Stake X Dedicated IO Aggregation								0.00		
Transient Blockholders									-0.09*	-0.09†
Dedicated Blockholders									0.01	0.01
Non-Founding Family Ownership X Transient Blockholders										0.00
Founding Family Ownership Stake X Dedicated Blockholders										
Transient Institutional Top Five Holdings										
Dedicated Institutional Top Five Holdings										
NonFounding Family Ownership X Transient Institutional Top Five										
Founding Family Ownership Stake X Dedicated Institutional Top Five										
Transient Institution Count										
Dedicated Institution Count										
NonFounding Family Ownership X Transient Institution Count										
Founding Family Ownership Stake X Dedicated Institution Count										
No Transient Blockholders										
No Dedicated Blockholders										
NonFounding Family Ownership X No Transient Blockholders										
Founding Family Ownership Stake X No Dedicated Blockholders										
Log-likelihood	-2069.31	-2061.62	-2063.09	-2061.47	-2061.62	-1984.58	-1977.34	-1975.53	-1984.50	-1973.04
Wald X^2	43.86***	46.80***	40.21**	40.19**	46.80***	42.78**	57.02***	57.22***	45.53***	58.39***
Number of firm-years	1809	1799	1799	1799	1799	1723	1722	1721	1724	1721

Notes: †p<.10; *p<.05; **p<.01; ***p<.001

TABLE 9 con't
Cross-Sectional Time-Series Tobit Regression Random Effects (DV: High Performance HR Practices)

Variable	Model 11	Model 12	Model 13	Model 14	Model 15	Model 16	Model 17	Model 18	Model 19
Intercept	0.16	0.31	0.10	0.00	0.37	0.60	0.42	-0.09	0.05
Firm Size	0.10*	0.09*	0.11**	0.11**	0.04	0.04	0.04	0.10*	0.10**
R&D Intensity	2.68***	1.52***	2.67***	2.71***	2.44***	2.45***	2.46***	2.66***	2.69***
Firm Sales Growth	0.00	0.00	0.00	0.00	-0.06	-0.07	-0.07	0.00	0.00
Liquidity	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03
Leverage	0.11	0.00	0.09	0.06	0.07	0.07	0.07	0.12	0.12
Capital Intensity	0.51*	0.46*	0.51*	0.53*	0.39†	0.39†	0.39†	0.50*	0.50*
Return on Equity (ROE)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Return on Assets (ROA)	0.16	0.00	0.20	0.19	0.21	0.22	0.21	0.16	0.16
Firm Diversification	0.06	0.06	0.06	0.07	0.05	0.06	0.05	0.06	0.06
Governance Index	-0.03†	-0.03*	-0.03*	-0.03†	-0.03	-0.03	-0.02	-0.03*	-0.03*
Union Relations	0.60*	0.57*	0.59*	0.59*	0.55*	0.54*	0.55*	0.60*	0.60*
Industry Capital Intensity	-0.01†	-0.01*	-0.01†	-0.01†	-0.01†	-0.01†	-0.01†	-0.01†	-0.01†
Industry Product Differentiation	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Founder CEO	0.01	0.00	0.00	-0.01	0.01	0.00	0.01	0.00	0.00
Descendent CEO	0.09	0.08	0.09	0.10	0.11	0.11	0.12	0.08	0.09
Founding Family Firm	0.06	0.09	0.06	0.06	0.07	0.07	0.06	0.06	0.06
Founding Family Ownership Stake	0.00	0.00		0.00	0.00		0.00		0.00
Founding Family Ownership Stake X Founder CEO									
Founding Family Ownership Stake X Descendent CEO									
Non-Founding Family Ownership			-0.00			-0.00		0.00	
Transient Institutional Ownership (IO) Aggregation									
Dedicated Institutional Ownership (IO) Aggregation									
Non-Founding Family Ownership X Transient IO Aggregation									
Founding Family Ownership Stake X Dedicated IO Aggregation									
Transient Blockholders	-0.09*								
Dedicated Blockholders	0.01								
Non-Founding Family Ownership X Transient Blockholders									
Founding Family Ownership Stake X Dedicated Blockholders	0.00								
Transient Institutional Top Five Holdings		0.00	0.00	0.00					
Dedicated Institutional Top Five Holdings		0.00	0.00	0.00					
NonFounding Family Ownership X Transient Institutional Top Five			0.00*						
Founding Family Ownership Stake X Dedicated Institutional Top Five				0.00					
Transient Institution Count					-0.00*	-0.00*	-0.00*		
Dedicated Institution Count					0.05***	0.05***	0.05***		
NonFounding Family Ownership X Transient Institution Count						-0.00			
Founding Family Ownership Stake X Dedicated Institution Count							0.00		
No Transient Blockholders					0.08			0.12*	0.12*
No Dedicated Blockholders					-0.02			-0.02	-0.02
NonFounding Family Ownership X No Transient Blockholders								-0.00	
Founding Family Ownership Stake X No Dedicated Blockholders									0.00
Log-likelihood	-1977.86	-1984.72	-1973.43	-1977.91	-1956.70	-1957.82	-1957.46	-1974.01	-1974.89
Wald X^2	58.60***	42.33**	59.94***	55.71***	97.77***	95.56***	96.35***	61.84***	60.18***
Number of firm-years	1723	1723	1721	1722	1722	1722	1722	1722	1722

Notes: †p<.10; *p<.05; **p<.01; ***p<.001

TABLE 10
Time-Series Cross-Sectional Logistic Regression, Random Effects (DV - Employee Involvement HR Practices)
Industry Dummy Variables

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Intercept	-15.02***	-14.80***	-14.86***	-14.54***	-10.39*	-26.15***	-1.73
Firm Size	0.23	0.22	0.24	0.22	0.29	0.22	0.25
R&D Intensity	10.87***	10.50**	11.33**	10.85**	11.57**	10.50**	11.12**
Firm Sales Growth	0.58†	0.57†	0.58†	0.58†	0.60†	0.57†	0.58†
Liquidity	-0.12	-0.12	-0.12	-0.12	-0.10	-0.12	-0.12
Leverage	-0.49	-0.61	-0.75	-0.58	-0.70	-0.48	-0.54
Capital Intensity	1.11	1.02	1.42	1.59	1.43	1.08	1.30
Return on Equity (ROE)	0.03	-0.16	-0.18	0.03	-0.17	0.03	0.03
Return on Assets (ROA)	2.80*	2.96*	3.14*	2.88*	3.21*	2.70*	2.78*
Firm Diversification	0.18	0.07	0.06	0.07	-0.07	0.07	0.04
Governance Index	-0.14	-0.18	-0.19	-0.19	-0.22†	-0.19	-0.19
Union Relations	3.63†	3.39	3.48	3.52†	3.94†	3.42	3.49
Energy Industry	6.82**	6.56**	6.68**	6.69**	6.52**	6.54**	6.68**
Materials Industry	6.92**	6.81**	7.01**	7.12**	6.22**	6.91**	7.01**
Industrial Industry	6.99**	6.90**	6.95**	7.10**	6.75**	6.97**	6.97**
Consumer Discretionary Industry	7.35**	7.36**	7.47**	7.56**	7.39**	7.43**	7.43**
Consumer Staples Industry	7.60**	8.04**	8.38***	8.50***	8.26***	8.02**	8.32**
Health Care Industry	8.34***	7.90***	8.23***	8.45***	7.96***	7.96**	8.19**
Financials Industry	7.85*	7.91*	7.83*	8.07*	8.95*	8.04*	8.05*
Information Technology Industry	11.43***	11.38***	11.44***	11.55***	10.84***	11.41***	11.47***
Telecommunication Services Industry	3.78	3.68	3.90	4.06	3.31	3.77	3.86
Founder CEO		0.04	0.02	-0.57	-0.12	-0.05	-0.21
Descendent CEO		-0.63	-0.61	-0.51	-5.07	-0.67	-0.79
Founding Family Firm		1.54*				1.55*	0.87
Founding Family Ownership Stake		-0.12*	0.21*	0.21†	-0.91		
Founding Family Ownership Stake2			-0.02**	-0.01*	-0.01		
Founding Family Ownership Stake X FounderCEO				-0.05			
Founding Family Ownership Stake2 X Founder CEO				0.01			
Founding Family Ownership Stake X Descendent CEO					-1.17		
Founding Family Ownership Stake2 X DescendentCEO					0.01		
Non-Founding Family Ownership Stake						0.11*	-0.13
Non-Founding Family Ownership Stake2							-0.01*
Log-likelihood	-518.56	-511.93	-510.57	-510.50	-503.06	-513.00	-511.07
Wald X^2	64.42***	68.90***	73.57***	70.90***	77.25***	63.09***	70.58***
Number of firm-years	1813	1819	1819	1820	1816	1820	1820

Notes: †p<.10; *p<.05; **p<.01; ***p<.001, two-tailed tests

**Utilities Industry Dummy Variable omitted due to collinearity*

TABLE 11

Time-Series Cross-Sectional Logistic Regression, Random Effects (DV - Employee Involvement) - Split Sample

	R&D Intensity (above Median)							R&D Intensity (at or below Median)					
Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**	**Model 7**	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Intercept	-7.24†	-6.33	-6.43	-6.17	-6.28	-21.04**	3.55	-6.05	-5.68	-5.91	-6.70	-5.81	-13.65†
Firm Size	0.62†	0.61†	0.62†	0.63†	0.59†	0.61†	0.64†	-0.01	-0.08	0.06	0.14	0.28	-0.08
R&D Intensity	14.07***	13.31***	14.42***	13.39***	14.41***	13.31***	14.01***	883.26	762.83	897.32	936.66	810.93	762.83
Firm Sales Growth	0.74†	0.71†	0.76†	0.74†	0.79†	0.71†	0.73†	0.07	0.16	0.15	0.11	0.10	0.16
Liquidity	0.21	0.19	0.20	0.18	0.19	0.19	0.20	-0.94	-0.90	-0.87	-0.77	-0.89	-0.90
Leverage	-2.48	-2.53	-2.65	-2.51	-2.63	-2.53	-2.56	-3.43	-3.13	-3.06	-2.96	-2.83	-3.13
Capital Intensity	-2.13	-2.11	-1.72	-1.83	-1.61	-2.11	-1.84	-0.06	0.67	0.75	0.63	0.06	0.67
Return on Equity (ROE)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	-0.46	-0.21	-0.26	-0.32	-0.25	-0.21
Return on Assets (ROA)	3.36*	3.12*	3.30*	3.42*	3.35*	3.12*	3.23*	5.01	3.75	4.56	5.51	4.52	3.75
Firm Diversification	0.47	0.23	0.21	0.18	0.15	0.23	0.20	-0.83	-1.30	-1.21	-1.08	-1.18	-1.30
Governance Index	-0.41**	-0.47**	-0.45**	-0.48**	-0.43**	-0.47**	-0.45**	-0.07	-0.09	-0.16	-0.17	-0.23	-0.09
Union Relations	4.62†	4.87†	4.88†	5.01†	5.40*	4.87†	4.85†	1.26	0.52	1.15	1.34	1.06	0.52
Industry Capital Intensity	-0.14	-0.15	-0.14	-0.15	-0.15	-0.15	-0.15	-0.02	-0.04	-0.03	0.00	0.01	-0.04
Industry Product Differentiation	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	2.37*	1.49	1.78	2.47*	2.21*	1.49
Founder CEO		-0.53	-0.28	-0.13	-0.39	-0.53	-0.53		1.46	1.16	0.93	1.16	1.46
Descendent CEO		0.52	0.88	0.98	0.38	0.52	0.62		-1.95	-2.87	-2.08	-296523.90	-1.95
Founding Family Firm		1.60†				1.60†	0.85		2.87**				2.87**
Founding Family Ownership Stake		-0.15*	0.18	0.33†	0.21				-0.08	0.40†	0.32	0.39*	
Founding Family Ownership Stake2			-0.02*	-0.03*	-0.02*					-0.02	-0.02	-0.02†	
Founding Family Ownership Stake X FounderCEO*				-0.13							0.33		
Founding Family Ownership Stake2 X Founder CEO*				0.01							0.00		
Founding Family Ownership Stake X Descendent					-1.57							30347.46	
Founding Family Ownership Stake2 X					0.04							-776.35	
Non-Founding Family Ownership Stake						0.15*	-0.10						0.08
Non-Founding Family Ownership Stake2							-0.01						
Log-likelihood	-358.60	-354.03	-353.27	-350.68	-352.01	-354.03	-352.89	-156.57	-152.44	-152.84	-152.63	-149.13	-152.44
Wald X^2	39.76***	44.27***	45.33***	45.55***	45.58***	44.27***	46.26***	10.62	17.18	15.32	16.04	16.48	17.18
Number of firm-years	1076	1070	1069	1068	1069	1070	1069	732	730	730	730	731	730

Notes: †p<.10; *p<.05; **p<.01; ***p<.001, two-tailed tests

**The variance inflation factor exceeds 10 even after mean-centering*

APPENDIX B – QUESTIONNAIRE AND MAILINGS

[*Syracuse University Seal & Whitman School of Management Header*]

LARGE SHAREHOLDERS AND COMMITMENT HUMAN RESOURCE PRACTICES QUESTIONNAIRE

2010

Research Directors:

Dr. Ravi Dharwadkar
Professor of Management

&

Frank Mullins
Doctoral Candidate

General Instructions

This study examines the relationship between large shareholders such as institutional investors and founding family owners and commitment human resource practices. ***We would like you to answer this questionnaire with regard to your entire company.*** If the information we require differs across business units or divisions, please answer with regard to the ***most dominant*** business unit. We understand that this may be somewhat difficult, and that some of the answers you give may be estimates, but please answer all questions to the best of your ability.

As with nearly all questionnaires, some of our questions may seem redundant. Such questions have been included to support the appropriate statistical analysis. We welcome your comments on any aspects of this questionnaire, or any other points you may which to make to us.

Your answers will remain absolutely confidential. Only our research team will have access to individual responses. Data will be reported on in aggregate forms, which will not allow the identification of individual respondents or firms. An identification number has been included only for tracking purposes.

We take this opportunity to thank you for agreeing to participate in this study. It is through your cooperation in studies like this that we can advance our understanding of organizations.

When completed, please return the questionnaire using the pre-paid reply envelope.

If you have any questions, please contact us via email at fimullin@syr.edu or telephone at (203) 942-8153.

GENERAL ORGANIZATIONAL DEMOGRAPHICS QUESTIONS

Your firm's total employment: Total workforce_____ Exempt_____ Non-exempt_____

Percentage breakdown of your firm's total workforce: Exempt_____% Non-exempt_____%

Percentage of workforce unionized: _____%

Average annual *voluntary* employee turnover: Total workforce_____% Exempt_____% Non-exempt_____%

Average annual *involuntary* employee turnover: Total workforce_____% Exempt_____% Non-exempt_____%

PART 1: INFORMATION ABOUT YOUR FIRM'S HUMAN RESOURCE PRACTICES

These questions are intended to assess the degree to which your HRM policies and practices are designed to elicit employee commitment and promote employee involvement. *Please circle the number corresponding to your answer.*

1. How strongly do you agree or disagree with each of the following statements about your firm' selection policies?	Strongly Disagree		Neutral		Strongly Agree
a. Internal candidates are given consideration over external candidates for job openings.	1	2	3	4	5
b. We select employees based on an overall fit to the company.	1	2	3	4	5
c. Our selection system focuses on the potential of the candidate to learn and grow with the organization.	1	2	3	4	5
d. We ensure that all employees in these positions are made aware of internal promotion opportunities.	1	2	3	4	5

2. How strongly do you agree or disagree with each of the following statements about your firm's incentive policies?	Strongly Disagree		Neutral		Strongly Agree
a. Employee bonuses or incentive plans are based primarily on the performance of the organization.	1	2	3	4	5
b. Salaries for employees in these positions are higher than those of our competitors.	1	2	3	4	5
c. Shares of stock are available to all core employees through stock purchase plans.	1	2	3	4	5
d. Goals for incentive plans are based on business-unit or company performance.	1	2	3	4	5

3. How strongly do you agree or disagree with each of the following statements about your firm's training and development policies?	Strongly Disagree		Neutral		Strongly Agree
a. We provide multiple career path opportunities for employees to move across multiple functional areas of the company.	1	2	3	4	5
b. We provide training focused on team-building and teamwork skills training.	1	2	3	4	5
c. We sponsor company social events for employees to get to know one another.	1	2	3	4	5
d. We offer an orientation program that trains employees on the history and processes of the organization.	1	2	3	4	5
e. We use job rotation to expand the skills of employees.	1	2	3	4	5
f. We have a mentoring system to help develop these employees	1	2	3	4	5
g. Performance appraisals are used primarily to set goals for personal development.	1	2	3	4	5
h. Performance appraisals are used to plan skill development and training for future advancement within the company	1	2	3	4	5

4. How strongly do you agree or disagree with each of the following statements about your firm's HR policies and practices aimed at employee involvement?	Strongly Disagree		Neutral		Strongly Agree
a. Our firm has a cash profit-sharing program	1	2	3	4	5
b. Our firm has recently made distributions via its cash profit-sharing program to a majority of its workforce	1	2	3	4	5
c. Our firm strongly encourages worker involvement	1	2	3	4	5
d. Our firm strongly encourages ownership through stock options for a majority of its employees	1	2	3	4	5
e. Our firm participates in an employee gain sharing program	1	2	3	4	5
f. Our firm strongly encourages employee stock ownership	1	2	3	4	5
g. Our firm engages in sharing financial information with workers	1	2	3	4	5
h. Our firm allows worker participation in managerial decision-making	1	2	3	4	5
i. Our firm has a notably strong retirement benefits program.	1	2	3	4	5

These questions ask about the proportion of your workforce covered by HRM activities designed to elicit a high level of employee performance. *Please provide an estimate for each item.*

5. What is the estimated percentage (%) of exempt employees and non-exempt employees covered by the practices identified below?	Exempt Employees (0-100%)	Non-Exempt Employees (0-100%)
a. One or more employment tests administered prior to hiring	_____%	_____%
b. Hold non-entry level jobs as a result of internal promotions	_____%	_____%
c. Promotions are primarily based upon merit or performance, as opposed to seniority	_____%	_____%
d. Hired following intensive/extensive recruiting	_____%	_____%
e. Are routinely administered attitude surveys to identify and correct employee morale problems	_____%	_____%
f. Are involved in programs designed to elicit participation and employee input (e.g., quality circles, problem-solving or similar groups)	_____%	_____%
g. Access to a formal grievance and/or complaint resolution system	_____%	_____%
h. Provided operating performance information	_____%	_____%
i. Provided financial performance information	_____%	_____%
j. Provided information on strategic plans	_____%	_____%
k. Receive formal performance appraisal and feedback on a routine basis	_____%	_____%
l. Formal performance feedback from more than one source (i.e., from several individuals such as supervisors, peers, etc.)	_____%	_____%
m. Compensation partially contingent on group performance (e.g., gainsharing, profit sharing, etc.)	_____%	_____%
n. Pay is based on a skill or knowledge-based system (versus a job-based system); i.e., pay is primarily determined by a person's skill or knowledge level as opposed to the particular job that they hold	_____%	_____%
o. Intensive/extensive training in company-specific skills (i.e., task or firm-specific training)	_____%	_____%
p. Intensive/extensive training in generic skills (e.g., problem-solving, communication skills, etc.)	_____%	_____%
q. Training in a variety of jobs or skills ("cross training") and/or routinely performing more than one job (are "cross utilized")	_____%	_____%
r. Are organized in self-directed teams in performing a major part of their work roles	_____%	_____%

These questions ask about the strategic priorities of your firm. *Please circle the appropriate number.*

6. Rate the extent to which your firm focuses on the following in comparison to your major competitors.	Much Lower	Lower	Slightly Lower	Neutral	Slightly Higher	Higher	Much Higher
a. Level of capacity utilization	1	2	3	4	5	6	7
b. Level of operating efficiency	1	2	3	4	5	6	7
c. Efficiency in securing raw materials	1	2	3	4	5	6	7
d. Offering competitive prices	1	2	3	4	5	6	7
e. Emphasis on finding ways to reduce cost of production	1	2	3	4	5	6	7
f. Efficiency of your distribution channels	1	2	3	4	5	6	7

General Information

Your position: _____

The name of your firm: _____

How many years have you been employed at this firm? _____

How many years have you been in this position? _____

In what year was your firm founded? _____

What is your firm's primary product or service? _____

What is your firm's primary industry? _____

If you know it, what is your firm's primary standard industrial classification (SIC) code? _____

Including the highest and lowest levels in your organization chart, how many levels do you have? _____

Do you have a separate HR department ___Yes ____No

How many total employees are there in your HR department? _____

What is your firm's average budget for the HR department? _____

Your HR department Head reports to (title): _____

What proportion of the HR function is outsourced by your firm? _____%

COMMENTS: After completing this survey, it is likely that you will have a number of comments or suggestions. In the following space, please feel free to comment on any part of the survey.

An Examination of the Relationship between Large Shareholders and Commitment Human Resources Systems

Date:

<First> <Last>
<Title>
<Company>
<Address>
<City> <State> <Zip>

Dear <Sal> <Last>,

We are conducting a research study that will examine the relationship between corporate governance and human resource management. We invite and would greatly appreciate your participation in this study. Involvement in this study is voluntary, so you may choose to participate or not. This letter will explain the study to you.

Research has established that human resource practices designed to encourage a high degree of employee involvement and commitment can contribute to the performance of the firm; yet, we understand very little about those factors that enable or constrain the use of these human resource practices. Our study will investigate the influence of large shareholders such as institutional investors and founding family owners on the use of these human resource practices in the firm. Therefore, ***the benefit of this research study is that it will help us to understand how large shareholders either enable or constrain firms from using human resource practices that encourage a high degree of employee involvement and commitment.***

We need your input to make this effort meaningful. ***Accompanying this letter is a survey that asks questions about the various dimensions of the human resource practices that your firm currently uses.*** You were selected to participate in this survey because of your knowledge of your firm's human resource practices as its human resources leader. The survey is designed to be completed quickly and easily. You only need to check off items or jot down a few numbers, which should take about 15 to 20 minutes. In return for your participation, we will provide to you, upon request, an executive summary of the findings from this study as well as a customized profile of your firm benchmarked against your industry and the overall database. We feel that you may benefit from understanding the implications of large shareholders such as institutional investors and founding family owners for the firm using human resource practices that encourage a high degree of employee involvement and commitment.

The risks to you of participating in this study are minimal. However, there remains the potential risk to one's career with their respective firm should the information provided be deemed by other firm officials as presenting the firm in a 'negative light'. Therefore,

all information will be kept strictly confidential. Your name will not appear anywhere and under no circumstances will your responses be shared with anyone other than the research team. Your responses will be combined with that of other participating firms and used for statistical analyses. If you do not wish to answer any of the survey items, you have the right to refuse to take part, without penalty. Return of the survey will indicate that you are over the age of 18 and wish to voluntarily participate in this research study. We have not asked for a signed consent in order to increase anonymity of responses.

If you should have any questions, concerns, or complaints about this research study, please contact us via email at fimullin@syr.edu or telephone at (203) 942-8153. If you should have any questions about your rights as a research participant or have questions, concerns, or complaints that you wish to address to someone other than us, the research team, contact the Syracuse University Institutional Review Board at (315)443-3013. Thank you for your time and attention.

Sincerely,

Ravi Dharwadkar, Ph.D.
Professor of Management
Whitman School of Management
Syracuse University

Frank Mullins, MBA
PhD Candidate
Whitman School of Management
Syracuse University

Commitment Human Resource Practices Survey

2010

Research Directors:

Dr. Ravi Dharwadkar
Professor of Management

&

Frank Mulllins

General Instructions

You will be receiving the Commitment Human Resource Practices Survey from the Whitman School of Management, Syracuse University, that will be used to investigate the association between an organization's ownership structure (i.e., equity held by different types of institutional investors and family owners) and the use of commitment human resource practices. **Please return this survey by June 14, 2010 and you will receive:**

- A free custom report for your organization that compares your organization's ownership structure (i.e., equity held by different types of institutional investors and family owners) and commitment human resource practices to those of the other participating organizations and an assessment of the nature of the relationship between ownership structures and commitment human resource practices.

For more information, contact Professor Ravi Dharwadkar at rdharwad@syr.edu or (315) 443-3386.

[LOGO HERE]

Commitment Human Resource Practices Survey

2010

Research Directors:

Dr. Ravi Dharwadkar
Professor of Management

&

Frank Mulllins

General Instructions

By now you should have received the Commitment Human Resource Practices Survey from the Whitman School of Management, Syracuse University. **If you respond by June 14, 2010 will receive:**

- A free custom report for your organization that compares your organization's ownership structure (i.e., equity held by different types of institutional investors and family owners) and commitment human resource practices to those of the other participating organizations and an assessment of the nature of the relationship between ownership structures and commitment human resource practices.

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