



Cornell University  
ILR School

Cornell University ILR School  
**DigitalCommons@ILR**

---

CAHRS Working Paper Series

Center for Advanced Human Resource Studies  
(CAHRS)

---

11-1-1996

# Agency Theory Implications for Strategic Human Resource Management: Effects of CEO Ownership, Administrative HRM, and Incentive Alignment on Firm Performance

Theresa M. Welbourne  
*Cornell University*

Linda A. Cyr  
*Cornell University*

Follow this and additional works at: <http://digitalcommons.ilr.cornell.edu/cahrswp>

 Part of the [Human Resources Management Commons](#)

Thank you for downloading an article from DigitalCommons@ILR.

[Support this valuable resource today!](#)

---

This Article is brought to you for free and open access by the Center for Advanced Human Resource Studies (CAHRS) at DigitalCommons@ILR. It has been accepted for inclusion in CAHRS Working Paper Series by an authorized administrator of DigitalCommons@ILR. For more information, please contact [hlmdigital@cornell.edu](mailto:hlmdigital@cornell.edu).

---

# Agency Theory Implications for Strategic Human Resource Management: Effects of CEO Ownership, Administrative HRM, and Incentive Alignment on Firm Performance

## **Abstract**

Agency theory is used to expand the research in strategic human resource management (SHRM) by viewing the construct underlying SHRM as control over all employees. We develop hypotheses on the effects of CEO ownership, administrative HRM, and incentive stock ownership on firm performance. The results indicate that administrative HRM has a negative effect on stock price. Incentive alignment via stock ownership has a positive effect on stock price and productivity. CEO ownership has a positive effect on sales but a negative impact on productivity. Implications for theory and practice are discussed.

## **Keywords**

work, business, organization, company, incentive, executive, employee, performance, stock, price, human resource, management, SHRM, CEO, ownership

## **Disciplines**

Human Resources Management

## **Comments**

### **Suggested Citation**

Welbourne, T. M. & Cyr, L. A. (1996). *Agency theory implications for strategic human resource management: Effects of CEO ownership, administrative HRM, and incentive alignment on firm performance* (CAHRS Working Paper #96-17). Ithaca, NY: Cornell University, School of Industrial and Labor Relations, Center for Advanced Human Resource Studies.

<http://digitalcommons.ilr.cornell.edu/cahrswp/186>

WORKING PAPER SERIES

# Agency Theory Implications for Strategic Human Resource Management: Effects of CEO Ownership, Administrative HRM, and Incentive Alignment on Firm Performance

Theresa M. Welbourne  
Linda A. Cyr

Working Paper 96-17



AGENCY THEORY IMPLICATIONS FOR  
STRATEGIC HUMAN RESOURCE MANAGEMENT:  
EFFECTS OF CEO OWNERSHIP, ADMINISTRATIVE HRM, AND  
INCENTIVE ALIGNMENT ON FIRM PERFORMANCE

Theresa M. Welbourne  
Cornell University  
Center for Advanced Human Resource Studies  
393 Ives Hall  
Ithaca, NY 14853-3901  
607/255-1139  
FAX: 607/255-1836  
tw19@cornell.edu  
and

Linda A. Cyr  
Cornell University  
Human Resource Studies  
393 Ives Hall  
Ithaca, NY 14853-3901

<http://www.ilr.cornell.edu/CAHRS>

Please direct all correspondence to Theresa Welbourne.

This paper has not undergone formal review or approval of the faculty of the ILR School. It is intended to make results of research, conferences, and projects available to others interested in human resource management in preliminary form to encourage discussion and suggestions.

AGENCY THEORY IMPLICATIONS FOR  
STRATEGIC HUMAN RESOURCE MANAGEMENT:  
EFFECTS OF CEO OWNERSHIP, ADMINISTRATIVE HRM, AND  
INCENTIVE ALIGNMENT ON FIRM PERFORMANCE

ABSTRACT

Agency theory is used to expand the research in strategic human resource management (SHRM) by viewing the construct underlying SHRM as control over all employees. We develop hypotheses on the effects of CEO ownership, administrative HRM, and incentive stock ownership on firm performance. The results indicate that administrative HRM has a negative effect on stock price. Incentive alignment via stock ownership has a positive effect on stock price and productivity. CEO ownership has a positive effect on sales but a negative impact on productivity. Implications for theory and practice are discussed.

Human resource management (HRM) has entered an era where it is attempting to become a "strategic partner" within the organization, helping businesses to transform and become more competitive (Dyer and Kochan, 1994). As a result, a number of research studies have emerged that focus on either the integration between HRM and strategic processes (e.g. Martell & Carroll, 1995) or the effects of HRM activities on organizational outcomes (e.g. Huselid, 1995; MacDuffie, 1995). Unfortunately, much of this research has been conducted within larger, well-established (i.e. Fortune 500) companies and has excluded smaller firms without formal HRM functions.

We believe there is value in expanding the SHRM literature into the domain of smaller and growing firms. Most of the businesses in the United States employ fewer than 100 people, and a significant amount of job growth comes from this sector (Hornsby & Kuratko, 1990). The emphasis on large firms in SHRM research excludes an important segment of the economy that might inform us about the strategic importance of HRM. Even though an organization lacks an HRM department, it must still make strategic choices about the way in which employees are governed, and those choices are likely to affect its performance.

Research that focuses on smaller firms allows for two important contributions to the strategic human resource management literature. First, it facilitates further development of the construct underlying SHRM, and second, it highlights the potential importance of the involvement of HRM in the business. Given the current call for human resource professionals to become "strategic partners" in the firm (Ulrich, 1997), studies on the effects of HRM vis-a-vis other forms of organizational control can contribute toward our understanding of the reasons why HRM may be more effective in a more strategic role.

The recent shift of the HRM field toward a more macro orientation has resulted in significant and important contributions to the field. However, as a function of the "newness" of this area of study, the work has been somewhat limited in its development of an underlying construct. Rather than considering an organizational level "people management" construct, to date, researchers have emphasized the activities of the HRM department. These HRM strategies or "bundles" of practices may represent something that occurs at the organizational level, or they may not. As a result, we are still not sure what strategic human resource management really represents, which leads to a number of serious problems in the areas of theory development and measurement (Dyer and Kochan, 1994).

Snell (1992: 293) recognized the need for development of the construct underlying SHRM and made some progress in conceptualizing it in a unique way by suggesting control theory as a way to "integrate human resource practices and place them in the strategic context

of firms." His study, however, focused only on "bureaucratic mechanisms" (i.e. formal human resource practices), therefore, limiting the types of control systems that were studied to those used by larger firms. According to Snell (1992: 294), "informal modes of personal influence were not considered, precluding examination of small firms, in which control is primarily an informal process." We contend that supplementing the SHRM research with a study that compares HRM to alternative forms of control in smaller firms can advance the field.

The purpose of our research is to expand the work in SHRM by examining it through a different lens and in a different type of sample. We apply agency theory to a sample of initial public offering (IPO) firms (which are smaller and mid-sized firms), many of which do not have formal human resource management departments. While prior research (e.g. Snell and Youndt, 1995; Snell, 1992) has considered control aspects of various HRM activities, it has yet to consider the monitoring<sup>1</sup> role of the HRM function itself in comparison to other forms of control in the firm. Rather than examining policies and practices of the HRM department, we study three forms of organizational control suggested by agency theory. Specifically, we are interested in the relative effects of CEO control, bureaucratic control, and incentive alignment on firm performance.

Although our application of agency theory does not permit us to directly explore the "strategic partner" role of the HRM function, we think that by examining the effects of more traditional or bureaucratic HRM, our research will facilitate broader understanding of the effects of HRM on firm performance. The use of agency theory and the sample of IPO firms leads to an organizational level conceptualization whereby administrative HRM is but one of three forms of control that can be manifested in organizations. Although the field of HRM is changing rapidly and many researchers are calling for a more strategic function, many HRM departments still adhere to a bureaucratic control model in which administrative activities are paramount (Beer, 1997; Mohrman, Lawler, & McMahan, 1996; Golden & Ramanujam, 1985). This administrative form of HRM is consistent with bureaucratic control as suggested by agency theory. In this study, we assess the effect of this "older" form of HRM on firm performance. This will, in turn, have implications for the study of the more strategic mode of HRM that is currently being proposed by many HRM strategists (e.g. Ulrich, 1997).

Finally, in addition to enhancing the development of the construct underlying SHRM and accentuating the potential importance of the "strategic partner" role of HRM, this study will

---

<sup>1</sup> The terms control and monitoring are used interchangeably. Both are agency-based terms, and they refer to organizational level controls enacted to assure workers are engaging in behaviors that are consistent with the needs of owners or employers.

contribute to agency theory by investigating the link between forms of control over all employees and firm performance. Eisenhardt (1989) suggests the implications of agency theory may be most visible for situations in which outcome uncertainty is high. This is the case with IPO firms; they bear a wider range of risks than do larger, more established companies, and therefore a higher degree of outcome uncertainty (Beatty & Zajac, 1994). Specifically, we chose this sample so that we could conduct a longitudinal analysis of the effect of control choices at the time of the initial public offering on subsequent stock prices, sales, and productivity.

### AGENCY THEORY AND FORMS OF MONITORING

Agency theory has been used to understand situations in which an individual delegates responsibility for a task to other persons (Fama, 1980). The person delegating the work is called the principal, and the individual to whom tasks are assigned is referred to as the agent. Agency theory is used to explicate alternative ways of controlling behavior in order to reduce conflicts of interest that inevitably arise when principals delegate responsibility to agents. The theory suggests that agency costs are minimized when the firm is controlled by the owners. When this is the case, conflicts of interest are eliminated, and agency costs are reduced.

Agency costs include the costs of monitoring, bonding, and residual loss (Barney and Ouchi, 1986). Monitoring costs are defined as the costs incurred from directly controlling the actions of employees (e.g. creating administrative functions such as an HR department, hiring supervisors, implementing incentive systems, etc.). Bonding costs arise and are borne by agents when agents are required to pursue activities to establish their credentials and provide behavioral "guarantees" to their employers (e.g. obtaining a CPA or being bonded). Residual loss is defined as the inevitable cost to the employer that results because complete (100%) compliance by employees cannot be achieved.

Particularly pertinent to our study are monitoring costs. Firms in their nascent stages are typically owner managed, and agency costs are, therefore, relatively low because the interests of owners and managers reside in the same persons (Jensen & Meckling, 1976). However, as firms grow and more employees are brought on, opportunities for conflicts of interest increase. Thus, monitoring by owners becomes less efficient, and owners (usually led by the CEO) must begin to make choices regarding alternative forms of monitoring employees. There are costs associated with monitoring, and agency theory research has focused on choices among forms of monitoring that lead to a reduction in total agency costs.

Although agency theory has been most frequently used to explain alternative forms of control over managers, it can also be used to understand organizational control over the entire



employee population (Welbourne, Balkin & Gomez-Mejia, 1995). When agency theory was applied to the overall workforce in the past, it was limited to application of two forms of control (closely controlling behaviors or using outcome-based incentives). For example, Becker and Olson (1989: 247) state that: "Two management strategies are possible. First, managers can attempt to allocate some of the firm's business risk to labor, with the aim of increasing workers' incentive to act as owners .... A second strategy is to closely supervise and control employees, allocating the greater share of the firm's business risk (and associated returns) to the shareholders." Thus, two processes for monitoring the workforce emerge; one is bureaucratic control (through policies and procedures), and the other is incentive alignment (through organizational-based incentives designed to align interests of workers with the firm).

### MONITORING AND FIRM PERFORMANCE

How does the organization's choice of monitoring affect both short and long-term firm performance? Agency theory suggests that organization performance improves when agency costs are reduced. Minimal agency costs are incurred when control is vested in the "owner" or entrepreneur who both owns and manages a business (Fama & Jensen, 1983). When management is separate from control (or when CEO ownership decreases), agency costs begin to increase. The rise of the modern corporation and the complexities surrounding management of those institutions have led to a number of studies that seek to understand ways to minimize agency costs when ownership is separate from control (Fama, 1980). These studies focus on the effect of top management on firm performance. Several studies have found, consistent with agency theory assumptions, that owner control is positively related to firm performance (Glassman & Rhoades, 1980; McEachem, 1975; Salomon & Smith, 1979).

In addition, CEO ownership may be associated with lower agency costs within the firm because the CEO chooses to minimize monitoring costs by relying on him/herself and the management team to monitor the work force. This is in lieu of setting up formal bureaucratic control or incentive alignment systems. According to agency theory logic, the result should be a positive impact on organizational performance.

Hypothesis 1: CEO ownership will be positively related to firm performance.

#### Bureaucratic Control versus Incentive Alignment

According to agency theory, owner (or CEO) control minimizes agency costs and results in maximization of firm performance. However, as ownership becomes more dispersed (i.e. the CEO relinquishes control), firms make choices between bureaucratic control and incentive alignment in order to keep agency costs to a minimum (Rao & Neilsen, 1992). Although the

trade-offs between monitoring and incentive alignment have been most notably studied among top managers (e.g. Beatty & Zajac, 1994), trade-offs also exist as applied to the entire employee population (Becker & Olson, 1989). Thus, we consider the relative merits of achieving bureaucratic control through administrative HRM versus achieving incentive alignment via incentive stock option plans for all employees in our sample of IPO firms.

Administrative HRM. The field of HRM is changing dramatically. Many researchers are calling for a more strategic function characterized by a long-term focus, a tighter linkage between HRM and strategic processes, and an HR executive who assumes the role of "strategic partner" or "consultant" and has a position on the executive team (Martell & Carroll, 1995; Dyer & Kochan, 1994). Although the HRM function is attempting to move toward a more strategic role, where the emphasis is less on administration and bureaucratic control and more on being a strategic partner or consultant within the firm, many HRM organizations remain bureaucratic and administrative in nature. For example, Mohnnan, Lawler, and McMahan (1996: 81), when commenting on the changes taking place in the field of HRM, note that "the HR function has been largely an administrative one headed by individuals whose roles are largely in cost control and administrative activities." Beer (1997: 51) recently noted that the HRM function has been traditionally concerned with administrative activities and garnering power by "ensuring compliance." Thus, the traditional "policing" role of the HRM group serves to minimize uncertainty and to establish predictable routines for employees (Snell & Youndt, 1995).

These more administratively-oriented HRM functions can be viewed as serving the monitoring function through their administration of performance appraisal, job analysis, job evaluation, human resource audits, job postings, and by writing and formalizing policy and procedure handbooks. All of these HRM policies and procedures are designed to standardize and control employee behavior, and they result in numerous bureaucratic systems that require administration and maintenance (Edwards, 1979).

These monitoring functions increase total agency costs in two ways. First, there are the direct costs associated with implementation and maintenance of bureaucratic systems (Jones & Wright, 1992). In addition to these direct costs, there may be significant costs associated with the agency problems of nonalignment of goals and information asymmetry. According to agency theory, bureaucratic monitoring systems result in employees behaving in a compliant manner because it is in their best interests (e.g. do what's in your job description, and you get a raise). Compliant behavior may be detrimental to firm performance when a company is undergoing significant change because uncertainty is high. In addition, employees have information that is not available to the employer, and bureaucratic systems do not encourage sharing that

information with owners. In smaller, fast growth firms, such as the ones that we are studying, the costs associated with acquiescent behavior and withholding information may be severe. If bureaucratic systems ensure "predictable routines for employees" and curtail behaviors that are needed for quick response to unknown problems, then the agency costs associated with the use of bureaucratic controls may be quite large.

Hypothesis 2: After controlling for CEO ownership, the presence of a bureaucratic (or administrative) HRM function will have a negative impact on firm performance.

Incentive stock options. As previously mentioned, the sample of firms being studied includes smaller, higher risk firms that are going through the initial public offering process. Agency theory suggests that higher risk firms will benefit from choosing incentive alignment rather than bureaucratic control to monitor employees. The underlying premise is that increasing employee ownership in the firm contributes to aligning employee goals with firm goals and makes employees more likely to behave in the interests of the organization (Jensen and Meckling, 1976). The argument is that controlling outcomes provides rewards for employees to engage in risk-taking behaviors that enhance long-run firm performance (Jensen & Murphy, 1990). This, in turn, reduces agency costs and enhances firm performance.

This conclusion is supported by work in the areas of strategic human resource management and compensation. For example, Miles and Snow (1984) suggest that prospector firms, which are characterized as higher risk organizations (i.e. changing products and markets, fast growth, etc.) should be more effective when the total compensation package places a heavy emphasis on incentives. Schuler (1987) proposes that entrepreneurial firms, which are described as facing higher risks, should use long-term incentive programs. He specifically notes that by using this type of incentive system, the company should "stimulate and reinforce risk taking, and willingness to assume responsibility for a longer-term orientation" (1987: 10). The findings of Gerhart and Milkovich (1990: 685) support this argument; they suggest that "making many employees eligible for long-term incentives is associated with high organizational performance in the long run." Finally, Gomez-Mejia and Balkin (1992) also note that compensation systems including incentives that share firm risk with employees are more effective for fast growth, startup, risk taking organizations.<sup>2</sup>

---

<sup>2</sup> We chose to consider incentive stock options (ISOs) rather than other compensation systems for two reasons. First, ISOs link employee and firm performance and are most likely to share risk with employees. Second, ISOs are consistent with the "longer-term orientation" suggested by Schuler (1987), and focus employee action on the same outcome across firms: market performance. Other forms of organizational-based rewards, such as profit sharing or gainsharing, while attempting to align employee effort with outcomes are less likely to transfer risk and may focus employee attention on any number of potential outcomes (e.g. cost reduction, revenue generation, etc.).

The agency theory and strategic human resource management literatures suggest that in higher risk firms, such as IPO organizations, agency costs will be reduced and firm performance enhanced by sharing risk with employees via incentive alignment. Thus, monitoring through the use of incentive stock options should result in higher performance for firms such as those in our IPO sample.

Hypothesis 3: After controlling for CEO ownership, the presence of incentive stock options for all employees will have a positive effect on firm performance.

We are attempting to expand the work in the field of SHRM by focusing on CEO ownership, administrative HRM, and incentive stock options as forms of monitoring all employees. Since this has not been done previously, in addition to testing the hypotheses, we present data from our sample to assess the validity of our measures of control over all employees.

## METHODS

The sample contains 107 non-financial companies that initiated their IPOs in 1988. Approximately 250 firms filed securities registrations with the SEC in 1988, and we pared down the list to 170 by deleting those listed as closed-end funds, real estate investment trusts, and other firms not producing a good or service. Although we were able to obtain prospectuses for 136 firms, post-IPO performance data (i.e. stock price, sales, and number of employees) were available only for 107 of those firms.<sup>3</sup>

### Data Collection and Coding

Data were gathered from the prospectus of each firm and from COMPUSTAT. The prospectus is the document provided to the Securities and Exchange Commission (SEC) prior to the public offering, and it is also the document circulated by the underwriter to assess demand for the firm's stock. The SEC requires that firms follow strict guidelines in the format. In fact, the firm is legally liable for any information that might mislead investors (O'Flaherty, 1984). As noted by Beatty and Zajac (1994), top management is accountable to the SEC and to stockholders regarding the contents of the prospectus. The Securities Act of 1933 sets the requirements for the prospectus, thus assuring consistency in the type of information that is included in the document. The typical prospectus writing process involves at least three lawyers (one for the company and one for each of the investment bankers), two investment banking

---

<sup>3</sup> This is a sub-sample of the one used by Welbourne and Andrews (1996). While they were able to use the entire sample of 136 firms to study initial stock price and firm survival, firm performance data to measure our dependent variables (e.g. stock price, sales, number of employees) starting in 1989 were only available for 107 of those organizations.

firms, and at least one certified public accountant. Each party has a vested interest in providing the public with an honest view of the company.<sup>4</sup>

Data were coded using a two-step process with two coders who were unaware of the post-IPO performance of the companies as they coded. First, a five-page summary of each prospectus was constructed. Given the fact that the prospectus is not a traditional data source, this first step allowed for careful reading of each document, cross checking at the second stage of coding, and notation of any unusual firm characteristics. The second step involved numerically coding each five-page summary for specific information. Researchers cross-coded a sample of companies (two people coded the same prospectus), and then switched companies for the second stage of coding. Any coding questions were resolved through group consensus, which involved meetings with the coders and an additional researcher. Descriptive data on the company, its strategy, financial status, and details about members of the top management team were included in the coding process. In addition to the data collected from the prospectuses, financial data for years ending 1989 through 1993 were gathered from COMPUSTAT.

#### Sample Characteristics

At the time of its IPO, the average firm in the sample was 11.66 years old (standard deviation of 17.32) and employed 675 (s.d. 1,664) people. The typical firm, however, was much younger and smaller. Half of the firms were less than 6 years old and had fewer than 130 employees; in fact, only about 25% of the firms in the sample had more than 500 workers. Most of the businesses were located throughout the United States (5 were located in foreign countries), with the highest percentage (24.1%) located in the Pacific states and the second and third largest concentrations being in the South Atlantic (17.6%) and Mid-Atlantic (16.7%), respectively. The sample encompasses several types of businesses, ranging from food service retailing to biotechnology to steel minimills. Using the classification scheme suggested by the Small Business Administration, the sample has 37 companies in service industries, 1 firm in agriculture, 8 in retail trade, 5 in wholesale trade, 9 in transportation, and 47 in manufacturing. The average net profit at the time of the IPO for the sample was \$3,952,679 (s.d. \$12,094,101) with 36% of the firms reporting losses at the time of their IPO's.

---

<sup>4</sup> As part of the overall research program that one of the authors is conducting, the researcher participated in the IPO process of a firm that went public in February of 1996. The author attended the prospectus writing sessions for this company. The entire process took over four months, with multiple revisions and validity checks. Each statement in the prospectus was checked and rechecked for complete disclosure. Given the high level of scrutiny in collecting data and writing the prospectus, in addition to the fact that the SEC requires a tremendous amount of detail regarding company operations, the prospectus is a useful data source (Marino, Castaldi, & Dollinger, 1989).

### Independent Variables

CEO ownership. Data were collected that indicated CEO ownership both prior to and after the IPO. We decided to use CEO ownership after the IPO since our interest is in predicting performance after the IPO. Unlike much of the prior research on ownership that dichotomizes control, we are interested in examining the effects of CEO control across the continuum of ownership levels. As such, we leave CEO ownership as a continuous variable in our analyses. CEO ownership within the 107 firms ranged from 0% to 89% with the CEO of the average firm owning 16% (s.d. 18%) after the IPO.

Our logic in studying CEO ownership is that higher ownership represents a state in which the CEO and his/her top management team monitor employees directly. To assess the validity of this logic,<sup>5</sup> we divided the sample into quartiles based on CEO ownership and ran a series of ANOVAs (one-way analysis of variance tests) to determine how the firms in the quartiles differed on a number of dimensions related to their overall control orientation. The first quartile included firms with between 0 and 3% CEO ownership, the second included organizations with between 3.1 and 10% ownership, the third included firms with between 10.1 and 23% CEO ownership, and firms in the last quartile had CEOs who owned more than 23.1 % of the firm. Firms in the fourth quartile (highest level of CEO ownership) were least likely to have an administrative HRM function, least likely to have an incentive stock option plan for all employees and were most likely to have a CEO who was the founder. These findings are consistent with our belief that when CEO ownership is high, control resides in the CEO and/or top management team.

Bureaucratic control via administrative HRM. Marten and Carroll (1995) argue that including HRM executives as part of the top management team facilitates integration between HRM and firm strategy and contributes to the adoption of a strategic perspective of HRM within the company. Mohrman, Lawler & McMahan (1996) also suggest that in order for HRM to be strategic, the company needs a senior executive who reports directly to the CEO. When discussing "old HRM," Mohrman et al. (1996: 4) mention that "instead of reporting to the CEO, he or she reports to an executive at the next level of the organization." Thus, it appears that where HRM resides in the firm can be an indicator of the strategic nature of HRM.

In our sample, the presence of an HR function appears consistent with our depiction of bureaucratic control through administrative HRM. No organization had a Vice President (VP) of HRM or a Senior VP of HRM reporting directly to the CEO. Instead, a total of 22 (21%)

---

<sup>5</sup> Correlational data are discussed in the results section.

companies had an HRM function reporting to either the Chief Financial Officer (CFO) or the Vice President of Administration. We coded administrative HRM as one if the company reported that human resource management was the responsibility of the CFO or VP of Administration, and we coded the variable as zero if the function was not listed as part of that individual's responsibility. In our sample, no one else assumed responsibility for the HRM activities.

Incentive alignment via incentive stock options. As noted by Becker and Olson (1989), stock option programs are a mechanism for increasing alignment among all employees within an organization. Thus, we measured incentive alignment as having an incentive stock option plan for all employees. These programs provide individual employees with incentives to work toward the organization's goals in the same way that executive bonus plans provide incentives for executives to make decisions that will support the interests of the stockholders or owners. A total of 51 companies (48%) indicated they had incentive stock option plans for all employees. We coded the variable as one if a plan was reported in the prospectus, and we listed the variable as zero if the prospectus did not describe a plan for all employees.

Correlational data. Since administrative HRM and incentive stock option plans for all employees have not been used as measures of monitoring in prior research, we ran a series of correlations to verify that these do represent different forms of control over the entire employee population. We predicted that if these two forms of control were indeed representative of different overall approaches toward employees, then we should see patterns that reflect those differences on other employee-related dimensions.

The following discussion will report correlations that were significant for both administrative HRM (AHRM) and the incentive stock option plans (ISO). Although the prospectus does not include details about the how the company's HRM policies are administered, it does identify forms of compensation provided to employees as well as other indicators of the company's general approach toward employees. First, we found that firms with an AHRM function were more likely to offer compensation plans that tie employees to the firm and that provide employees with a higher level of job security. For example, having a full range of benefits programs (i.e. health care) was positively correlated with having an AHRM function ( $r = .15, p \leq .10$ ), but negatively related to having ISO plans ( $r = -.18, p \leq .05$ ). The same pattern holds for the existence of a 401(k) plan ( $r = .40, p \leq .01$  for AHRM;  $r = -.01$  for ISO). In general, it appears that the presence of an administrative HR function is associated with a variety of benefits and "entitlements" that may reduce the amount of risk allocated to employees but require considerable administration. Firms with ISOs, on the other hand, do not offer such

entitlements to their employees and may enjoy lower bureaucratic costs and, ultimately, lower agency costs than firms with administrative HRM functions.

In terms of general approach toward the employee population, the companies with ISO plans were more likely to note that employees were important to the success of their firm's strategy ( $r = .25$ ,  $p \leq .01$  for ISO;  $r = .15$  for AHRM) and less likely to use temporary employees ( $r = .04$ , n.s. for ISO;  $r = .23$ ,  $p \leq .05$  for AHRM). Additionally, companies with ISO plans were more likely to report that they were in competitive labor markets ( $r = .27$ ,  $p \leq .05$ ; correlation for AHRM is  $-.02$ ). The ISO firms were also less likely to have a union ( $r = -.16$  for ISO;  $r = .16$  for AHRM, both  $p \leq .10$ ). Finally, ISOs are used in higher risk firms ( $r = .19$ ,  $p \leq .05$ ) whereas firms with administrative HR functions face lower levels of firm risk ( $r = -.21$ ,  $p \leq .05$ ) suggesting that ISO firms may require that employees bear higher levels of firm risk. These results are consistent with agency theorists' (i.e. Jensen & Meckling, 1976) and SHRM researchers' (i.e. Miles & Snow, 1984; Schuler, 1987) propositions that incentives are designed to align interests of employees with those of the organization in highly risky and competitive environments.

In sum, significant differences in the pattern of relationships between monitoring choice (AHRM versus ISO) and a variety of employee-related variables do emerge. These indicate that our measures of bureaucratic control and incentive alignment are capturing two distinct forms of control.

#### Dependent Variables

**Stock price.** Following Gerhart and Milkovich (1990) who encouraged researchers to expand their definitions of organizational performance to include measures such as shareholder wealth, we use stock price to measure firm performance. Abowd, Milkovich, and Hannon (1990) note that the organizational performance outcomes most commonly considered in the HRM literature are employee behaviors and attitudes. "Economic performance" as defined by accounting measures and financial market performance measures has been less commonly examined. Economic performance as defined by stock market measures is most appropriate for the study of IPO firms. Not only are stock market measures the most prevalent in the IPO literature (see Ibbotson and Ritter, 1995 for a review), but accounting measures of performance (e.g. earnings per share, ROA, ROE) are susceptible to varying accounting methods and to manipulation (e.g. Lev and Thiagarajan, 1993). Thus, we use year-end stock prices, obtained from COMPUSTAT, for years ending 1989 through 1993.

**Sales and productivity.** In addition to stock price, we decided to study two additional measures of performance: sales and productivity. A primary purpose of the IPO is to obtain resources for future growth, and a well established measure of growth in both the popular press



(e.g. Fox, 1997) and the academic literature (e.g. Hoy, McDougall, & Dsouza, 1992) is sales growth. Thus, we thought it would be useful to consider the effect of control choices on sales.

In addition, because we are focusing on control over the entire population, we chose a measure of firm performance that reflects employee contributions to firm growth and that is independent of the vagaries of the capital markets. Consistent with recent empirical work that examines the effects of human resource management decisions on firm performance (e.g. Huselid, Jackson, & Schuler, 1997; Koch & McGrath, 1996), we use sales per employee (logged to correct for skewness) as a measure of productivity.

#### Control Variables

Several control variables, selected based on a review of both the strategic human resource management and initial public offering literatures (e.g. Beatty and Zajac, 1994; Huselid, 1995) were used in the analyses. The total number of employees, logged to correct for skewness, was included as a measure of size. Net profit (also logged) at the time of the IPO was added as a performance measure. A dichotomous measure coded "1" for service industry and "0" for manufacturing was used to control for industry. The two category industry classification was selected after reviewing the distribution of firms in the Small Business Administration's recommended categorization. As noted in the earlier description of the sample, the majority of the firms fell into either the manufacturing or service categories; therefore, in order to conserve statistical power, the two category industry classification (created by consolidating the nonmanufacturing sectors into the service dimension) was used for the regression analyses.<sup>6</sup>

Although our sample of IPO firms consists of higher risk ventures, we expect that each firm will be subject to varying degrees of risk. Therefore, an additional control variable (logged) indicates the level of risk faced by each firm. Each prospectus contains a section listing all risk factors faced by the firm, which must be disclosed to meet the requirements of the Securities and Exchange Commission. Prior research on initial public offering firms found that this measure was a useful way to code risk (Beatty and Zajac, 1994; Rasheed and Datta, 1994). The presence of the following risk factors were included in this measure: new product, few or limited products, limited number of years in operation, inexperienced management, technical risk, seasonality, customer dependence, supplier dependence, inexperienced underwriters, competition, legal proceedings against company, liability, and government regulation. The summated risk measure ranged from 1 to 11, with a mean of 4.27 and a standard deviation of 1.92.

Company age (calculated as 1989 minus year formed) was also included as a control variable (also logged) because much of the literature on life cycle indicates that the presence of a human resource function is related to company age (e.g. Baird and Meshoulam, 1988). Finally, initial offering price, initial sales, and initial productivity were included as control variables for the regressions to predict future stock prices, sales, and productivity, respectively. It is important to control for these initial conditions because each is a strong indicator of future performance. Table 1 includes the means and standard deviations for variables included in the analyses.

TABLE 1  
MEANS AND STANDARD DEVIATIONS

<u>Variable Name</u>	<u>Mean</u>	<u>Standard Deviation</u>
Industry (0=Manufacturing, 1=Service)	.54	.50
Company Age (years)	11.66	17.32
Number of Employees	675	1664
Net Profit at IPO	\$3,952,679	\$12,094,101
Risk at IPO (1 thru 11)	4.27	1.92
CEO Ownership after IPO	16%	18%
Administrative HRM (0=No, 1=Yes)	.21	.41
Incentive Stock Option Plan (0/1)	.48	.50
Initial Stock Price	7.18	5.10
Stock Price, Year-end 1989	9.06	14.60
Stock Price, Year-end 1990	6.72	8.09
Stock Price, Year-end 1991	10.71	12.50
Stock Price, Year-end 1992	11.43	12.21
Stock Price, Year-end 1993	12.85	11.81
Sales at Time of IPO (in millions)	80.41	176.47
Sales, Year-end 1989	147.88	337.77
Sales, Year-end 1990	192.64	394.43
Sales, Year-end 1991	235.57	455.64
Sales, Year-end 1992	300.05	576.13
Sales, Year-end 1993	376.29	723.21
Productivity at Time of IPO	115.85	148.91
Productivity, Year-end 1989	162.95	176.09
Productivity, Year-end 1990	193.94	198.02
Productivity, Year-end 1991	223.31	229.42
Productivity, Year-end 1992	242.47	286.35
Productivity, Year-end 1993	265.90	344.35

<sup>6</sup> We ran all analyses with the more detailed SIC codes, and the results did not change.

## RESULTS

Table 2 shows the correlations for variables included in the analyses. Level of CEO ownership after the IPO is significantly and negatively related to initial price per share, having administrative HR, productivity in 1989, and year-end stock prices in 1991 and 1993. Companies with CEOs who retain higher levels of ownership after the IPO are less likely to have designated someone at a high level responsible for the HR function, sell their shares at lower prices initially, and, subsequently, experience lower stock prices in the first five years after the IPO than do companies whose CEOs retain lower levels of ownership immediately following the IPO. Having an administrative HR function mentioned in the prospectus is significantly and positively related to company age, size, sales and profits at the time of the IPO, to initial offering price, and sales, productivity and stock price at year-end 1989. The presence of an administrative HR function is significantly and negatively related to level of firm risk and to CEO ownership immediately after the IPO. Companies that have incentive stock option plans for all employees appear to be mirror images of firms with administrative HR functions. Having an incentive stock option plan for all employees is significantly and negatively related to company age, profits, sales, and offering price, but is significantly, positively correlated with level of firm risk. In addition, a number of the control variables are significantly related to the dependent variables. For example, profits at the time of the IPO are significantly and positively related to productivity in 1989 and 1990, to sales in years 1989-1993, and to stock price in years 1989-1992, and company risk is negatively and significantly correlated with sales in each year, and with stock price in 1989, 1990, and 1993.



Table 2 (continued)

	Prod IPO	1989	1990	1991	1992	1993
Prod IPO	1.00					
1989	.85	1.00				
1990	.83	.87	1.00			
1991	.85	.84	.95	1.00		
1992	.77	.67	.76	.91	1.00	
1993	.74	.66	.75	.90	.99	1.00

Tests of Hypothesis 1

Our first hypothesis states that higher levels of CEO ownership will enhance performance. We tested this hypothesis by running separate regressions to predict firm stock price, sales and productivity for the years ending 1989 through 1993. Each equation included CEO ownership immediately following the IPO and a set of control variables including industry, firm age, size, profits, and risk, and either initial offering price, sales or productivity at the time of the IPO. A mixed pattern of results emerges depending on which dependent variable is investigated allowing us neither to accept the hypothesis as tenable nor to reject it outright.

While each of the equations for year-end stock price was significant, CEO ownership was not a significant predictor in any of the equations. Initial offering price was the most significant predictor of future prices, particularly in the early years. This would indicate no support for hypothesis 1 that CEO ownership is a significant predictor of firm performance. Significant results did emerge for sales, however. The results indicate that CEO ownership has a positive effect on sales in all years with significant effects in 1990 and 1992, indicating partial support for the hypothesis. Finally, after controlling for initial levels of productivity, we found that CEO ownership had a negative and significant effect for each year in predicting productivity. This finding appears to refute the hypothesis. Thus, we find mixed support for the hypothesis that higher levels of CEO ownership will be associated with higher firm performance. CEO ownership appears to have positive effects on sales, negative effects on productivity and no effect on stock price performance.

The regression equations for hypothesis one are not included in the tables. The results of the analyses to test hypothesis 1 (with only CEO ownership in the regression) are identical to those in the full equations with the other forms of control (AHRM and ISO). Therefore, in order to reduce redundancies and to minimize the number of tables presented, we only include the full tables used to test hypotheses 2 and 3. The results for CEO ownership, with AHRM and ISO in the equations, can be found in Tables 3 through 5. Tests of Hypotheses 2 and 3

Hypotheses 2 and 3 state that at a given level of CEO ownership, bureaucratic control will be negatively related to firm performance, and incentive alignment will be positively associated with performance. To examine the effects of these variables on firm performance, we ran three series of ordinary least squares regression equations for year-end stock price, sales and productivity. Each equation included the original set of control variables as well as CEO ownership as an additional control variable and variables for AHRM and ISOs.

Stock price. Table 3 includes the results of the regression analyses to predict year-end stock price for years 1989 through 1993. Each of the equations for year-end stock price is significant at the 0.01 level, with R<sup>2</sup> ranging from .31 in 1992 to as high as .49 in 1990.

TABLE 3  
RESULTS OF REGRESSION ANALYSES FOR YEAR-END STOCK PRICE

Variables	1989		1990		1991		1992		1993	
	Beta	T	Beta	T	Beta	T	Beta	T	Beta	T
Industry	.08	.91	.08	.94	.07	.72	.04	.36	-.09	-.76
Company Age	.01	.12	.03	.33	-.02	-.15	-.01	-.06	-.03	-.21
Log Employees	.04	.28	-.04	-.30	.17	1.11	.29	1.62	.24	1.31
Log Risk	.00	.01	-.06	-.58	.11	.97	-.07	-.51	-.17	-1.30
Initial Stock Price	.57	4.12***	.71	5.43***	.53	3.56***	.26	1.46	.28	1.56
Log of Net Profit	.06	.53	.10	.85	.07	.51	.01	.09	-.07	-.41
CEO Ownership	-.00	-.04	.05	.61	-.09	-.99	-.08	-.74	-.17	-1.49
ISO for all Emp.	.14	1.56	.20	2.37**	.26	2.66***	.30	2.62***	.24	2.04**
Admin. HRM	.02	.18	-.15	-1.66*	-.14	-1.32	-.22	-1.74*	-.27	-2.09**
R <sup>2</sup>	.40		.49		.41		.31		.33	
F	6.40***		8.60***		5.67***		2.98***		3.03***	
*** p ≤ .01; ** p ≤ .05; * p ≤ .10										
Note: Standardized regression coefficients are reported										

Initial stock price is the only control variable that shows any significance in predicting future stock prices. It is a significant predictor of year-end stock prices for 1989, 1990, and 1991. Consistent with hypothesis 2, AHRM negatively affects future stock price. Using an incentive stock option plan for all employees, on the other hand, is a significant and positive predictor of future stock price performance; this variable is significant for years ending 1990 through 1993. Thus, there is evidence to support both hypotheses 2 and 3 that after controlling for CEO ownership, AHRM has a negative effect on firm performance while ISOs are positively associated with future firm performance.

Sales. Table 4 shows the results of regression analyses to predict year-end sales for years 1989 through 1993. Each regression equation is significant at the .01 level, and the variables in the equations explain from 41% of the variance in sales in 1993 to as high as 70% in 1989. As might be expected, initial sales and company size are significant predictors of future sales. Interestingly, company age and initial profitability are negative predictors of future sales; younger and less profitable firms enjoy higher future sales after controlling for such differences as industry, risk, size and control choices.

TABLE 4  
RESULTS OF REGRESSION ANALYSES FOR SALES

Variables	1989		1990		1991		1992		1993	
	Beta	T	Beta	T	Beta	T	Beta	T	Beta	T
Industry	-.02	-.23	-.02	-.27	-.00	-.04	-.00	-.04	-.02	-.14
Company Age	-.20	-2.50**	-.24	-2.64**	-.27	-2.62**	-.31	-2.54**	-.33	-2.44**
Log Employees	.11	1.40	.16	1.94*	.20	2.04**	.24	2.16**	.25	2.04**
Log Risk	-.07	-.10	-.12	-1.57	-.14	-1.52	-.11	-1.02	-.14	-1.18
Sales at IPO	1.05	9.89***	1.01	8.51***	.93	6.89***	.77	4.86***	.66	3.78***
Log of Net Profit	-.27	-2.60**	-.28	-2.39**	-.22	1.67*	-.10	-.66	-.08	-.49
CEO Ownership	.08	1.28	.16	2.27**	.14	1.66	.16	1.69*	.09	.83
ISO for all Emp.	.00	.04	.04	.51	.06	.68	.11	1.11	.12	1.11
Admin. HRM	.02	.26	-.01	-.15	-.07	-.76	-.14	1.26	-.17	-1.44
R <sup>2</sup>	.70		.66		.60		.50		.41	
F	20.70***		15.67***		11.05***		6.50***		4.45***	
*** p ≤ .01; ** p ≤ .05; * p ≤ .10										
Note: Standardized regression coefficients are reported.										

Consistent with the findings for hypothesis 1 with regard to sales, CEO ownership is a significant predictor of sales in 1990 and 1992. No support emerges for either hypothesis 2 or hypothesis 3; neither AHRM nor ISO significantly predicts sales in any of the years 1989 through 1993.

Productivity. Table 5 includes results of the regression analyses to predict productivity and provides yet another picture of the effects of control choice on firm performance. Again, each of the equations is strongly significant (p < .001), and the proportion of variance in productivity explained by the variables ranges from 73% in 1989 to 93% in 1992. As was the case with sales, several control variables emerge as significant predictors of employee

productivity. Initial productivity is a strong predictor of future productivity in each year, and number of employees has a negative effect on productivity in years 1990 through 1993. In addition, company age and risk are negative predictors in several of the years, suggesting that younger, smaller, riskier firms are more likely to show higher productivity following their IPOs than are older, larger, more stable companies.

TABLE 5  
RESULTS OF REGRESSION ANALYSES FOR PRODUCTIVITY

Variables	1989		1990		1991		1992		1993	
	Beta	T	Beta	T	Beta	T	Beta	T	Beta	T
Industry	-.05	-.85	-.00	-.06	.03	.58	.05	1.51	.03	.58
Company Age	-.11	-1.69*	-.12	-1.59	-.12	-2.12**	-.04	-.93	-.07	-1.20
Log Employees	.03	.51	-.16	-2.23**	-.37	-6.88***	-.60	-15.27**	-.60	-10.43***
Log Risk	.05	.71	-.14	-2.00*	-.18	-3.44***	-.22	-5.86***	-.22	-4.03
Productivity at IPO	.82	13.88***	.87	13.65**	.91	19.15***	.88	24.49***	.84	16.62***
Log of Net Profit	.09	1.11	-.04	-.49	.02	.35	.01	.24	.02	.28
CEO Ownership	-.14	-2.41**	-.15	-2.48**	-.13	-2.76***	-.07	-1.98*	-.09	-1.87*
ISO for all Emp.	.05	.82	.07	1.17	.10	2.14**	.15	4.14***	.13	2.52**
Admin. HRM	.07	1.07	.01	.20	-.01	-.27	-.01	-.37	-.03	-.46
R <sup>2</sup>	.73		.75		.87		.93		.88	
F	28.08***		24.13***		49.77***		94.12***		43.84***	

\*\*\* p ≤ .01; \*\* p ≤ .05; \* p ≤ .10

Note: Standardized regression coefficients are reported.

In contrast to the positive effect of CEO ownership on sales, CEO ownership is a negative predictor of productivity in each year analyzed. All else equal, higher levels of CEO ownership are associated with lower sales per employee. Again, the effect of AHRM is not significant on productivity in any year, but having an ISO plan for all employees is a significant and positive predictor of productivity in later years (1991-1993). Summary of Tests of Hypotheses

In summary, the results of the regression analyses provide mixed support for hypothesis 1 and fairly consistent support for hypotheses 2 and 3. Contrary to our expectations, we did not find that higher levels of CEO ownership were necessarily associated with higher firm performance. CEO ownership immediately following the IPO was not a significant predictor of future stock prices, but it was a positive predictor of sales in three out of the five years analyzed and a negative predictor of productivity in each of the five years following the IPO. Thus,



depending on the way firm performance is measured (i.e. market performance, sales, or productivity), conflicting support emerges for the first hypothesis.

We did find consistent support, however, for hypotheses 2 and 3 that after controlling for CEO ownership, AHRM has a negative impact on performance while ISOs for all employees have a positive impact. At least in our sample of IPO firms, agency theory predictions that incentive alignment is preferable to bureaucratic control are supported. The findings are strongest with regard to future market performance; having an ISO plan is a significant positive predictor of future stock prices in four of the five years examined, and administrative HRM is a negative predictor in three of the five years. No significant results emerge in predicting sales, but ISO plans are significant and positive predictors of productivity for years ending 1991 through 1993. Overall, having incentive stock option plans for all employees appears to be a positive predictor of firm performance following the IPO while having an AHRM function has either no effect or deleterious effects on performance.

## DISCUSSION

The goal of this research was to expand the SHRM literature by conceptualizing the construct underlying SHRM as control over all employees. Instead of examining sets of policies and procedures enacted by the human resource department, we took a firm-level perspective and viewed organizational control through an agency theory lens. This approach led to a number of findings that we think will contribute to our understanding of not only the role of HRM on firm performance but the impacts of overall control choice on the growth and success of smaller organizations. In addition, the study points to a variety of implications for agency theory and SHRM and to future research that will enhance the SHRM literature. Implications for Agency Theory

This study makes a number of important contributions to the agency theory literature and highlights some of its limitations. First, we departed from the much heralded notion, pervasive in the executive compensation literature, that the CEO is the primary agent of owners. Instead, we applied agency theory to the entire employee population, viewing owners as the principal, and employees, as a group, as the agent. This perspective allowed us to examine the CEO differently than has been done in the past. Rather than looking only at forms of monitoring the CEO, we studied level of CEO ownership as one of three methods of guiding or controlling employee actions.

Based on agency theory, we hypothesized that higher levels of CEO ownership would lead to enhanced firm performance. Tests of this hypothesis, however, resulted in mixed

findings. Specifically, CEO ownership had a positive effect on sales, a negative effect on productivity and no effect on stock price. In order to more fully understand these results, we reviewed additional data from our sample. Telephone survey data were collected for 40 of the companies still in business in 1993 (see Welbourne and Andrews, 1996, for details on the survey). The survey asked CEOs or others in the top management team who had been with the firm since the IPO to rate the degree to which certain factors were important for their performance since the IPO. The firms in the fourth quartile on CEO ownership (those with the highest CEO ownership) had the lowest self report ratings for: leadership skills, the way employees work together, and their approach to employees. Recall that this group was less likely to have implemented either bureaucratic control or incentive alignment as mechanisms for controlling employees; thus, we suspect that these CEOs appeared to be relying more heavily on their own personal influence to control their employees. In addition, these same CEOs seem to have conceded that their overall approach to employees not only did little to contribute to their success, but may have hindered it. This may partially explain the conflicting findings that emerged for our first hypothesis.

In addition to high levels of CEO ownership being associated with a relatively unhealthy approach to employees, other explanations for the mixed findings from hypothesis one are also plausible. While CEO ownership had a positive effect on sales, it had a negative effect on productivity and no effect on stock price. These results are consistent with a story that suggests that CEO ownership affects the strategies pursued by each firm. For example, perhaps CEOs with high levels of ownership, perceiving that the market rewards growth, pursued high growth (i.e. increased sales) strategies to the temporary exclusion of productivity, which were noted by the market.

Another explanation consistent with the mixed results is that direct control by the CEO was a viable option when the company was smaller, but in the process of becoming a public company, this method of control became less successful. The IPO process demands a considerable amount of time from the CEO and the rest of the top management team. In addition, being a public company injects a new set of demands and time constraints on the executive team. For example, being a public company requires constant communication with investors and regular financial reporting to the SEC; in essence, the top management team must now respond to a new set of constituencies and may be left with substantially less time in which to monitor the actions of employees. The CEO's inability to monitor employees at this critical juncture might drive up total agency costs and lead to decreased performance. This

lends further credence to the importance of seeking alternative control mechanisms as direct CEO monitoring becomes less viable.

The conflicting findings relating to the effect of CEO ownership on firm performance and the many alternative explanations for them demonstrate the limitations of agency theory. Though agency theory would predict that higher levels of CEO ownership will positively affect firm performance, we found that hypothesis was not universally supported when different dependent variables were examined. Agency theory tends to be fairly simplistic in its approach to underlying organizational processes, and as a result, provides limited guidance in helping us understand the effects of control form on different types of organizational outcomes. Therefore, agency theory needs to be supplemented by additional theories in order to explain how a particular type of control form can have a positive effect on one measure of performance and a simultaneous negative effect on a second measure of firm performance. Only when these underlying processes are further investigated will we be able to explain these types of phenomena.

#### Contributions to SHRM Research

The primary goal of this research was to contribute to further refinement of the construct underlying strategic human resource management and to further understand the effect of administrative HRM on firm performance. Prior work in the field of SHRM has been limited not only by its focus on larger companies, but most importantly by its emphasis on the effects of policies and practices implemented specifically by formal HR departments. Recent research in strategic human resource management has, therefore, precluded forms of directing employee action that reside outside of a formal HR department. Implicit in our study is the belief that strategic human resource management should be viewed from a more macro perspective and that a formal human resource function is but one way to strategically control the actions of employees. This more macro perspective allowed us to investigate the broader effects of CEO ownership, bureaucratic control, and incentive alignment on firm performance of IPO firms, many of which do not have formal human resource functions. The findings shed light on the effectiveness of varying control strategies on firm performance of smaller firms and suggest a variety of implications for future research.

By applying agency theory to our sample of higher risk firms, we hypothesized that after controlling for level of CEO ownership, bureaucratic control via AHRM would negatively affect future firm performance and incentive alignment through ISOs would positively affect performance. The strongest evidence in support of these hypotheses emerged for stock price; AHRM was a significant negative predictor of future stock prices, while ISOs were a significant

positive predictor. No significant results emerged for sales, and for productivity, only ISOs were a significant positive predictor. Although bureaucratic control and incentive alignment were not significant across each dependent variable we measured, the pattern of results was consistent; bureaucratic control had a negative effect and incentive alignment had a positive effect in most of the analyses. Thus, our findings provided support for the agency theory prediction that incentive alignment will enhance firm performance whereas bureaucratic control will hinder it.

**Incentive alignment.** The significantly positive effect of incentive stock option plans on future stock price has important implications for SHRM. Specifically, we showed that incentive alignment, at least for our sample of IPO firms, is a viable form of directing employee action even in the absence of a formal human resource function. Consistent with agency theory, in high-risk organizations, incentive alignment provides rewards for employees to engage in risk-taking behaviors that enhance long run performance. Sharing risk with employees reduces agency costs and, therefore, leads to higher performance. In addition, the fact that this result is most clearly demonstrated with regard to future stock price is not unexpected; the primary objective of ISOs is to focus employee behavior on overall market performance, rather than on a specific measure of performance such as sales or net income.

Through the use of incentive stock option plans, all employees are encouraged to not only think like owners, but to behave as owners. The underlying premise of ISOs is that individual employee actions will be compatible with the best interests of the firm thereby leading to long-term performance. This provides some rationale for incentive alignment not being a significant predictor of future sales. Sales, though they may contribute to market performance, are not necessarily the primary driver of stock prices and, additionally, may reflect the concentrated efforts of only a select few employees. Productivity, on the other hand, reflects not only sales, but the individual contributions of each employee. Thus, it is understandable that ISOs, which are designed to harness and direct the efforts of all employees, would positively affect overall productivity.

**Bureaucratic control.** The negative effect of administrative HRM on firm performance is consistent with our predictions for our sample of firms. Bureaucratic control through administrative HRM has a deleterious effect on stock price and no significant effect on sales and productivity. The findings suggest that the bureaucratic costs outweigh the marginal benefits of instituting administrative HRM in IPO firms (Jones & Wright, 1992). Administrative HRM, as measured in this study, referred to the presence of an HRM function headed by either the Chief Financial Officer (CFO) or the VP of Administration. This was typical of a characterization of

HRM as primarily administrative (Mohrman, Lawler, & McMahan, 1996; Beer, 1997) and may account for the negative findings that emerged.

The primary function of administrative HRM, as we defined it, is to standardize and control employee behavior in an effort to minimize uncertainty. It requires explicit monitoring of routines, adherence to rules, and adequate information regarding cause-effect relations (Ouchi, 1979; Snell & Youndt, 1995). These requirements are inappropriate for firms undergoing tremendous change or experiencing high degrees of uncertainty, two characteristics applicable to IPO firms. Not only are these firms exposed to high degrees of uncertainty resulting from their "newness," but they are also in the midst of a major transition (going public) that requires them to be nimble in responding to change the rapid changes confronting them. The efforts and flexibility of all employees are particularly critical to firm success and may be constrained by bureaucratic mechanisms.

The negative effect of having an administrative human resource function may also be associated with the transfer of control from the manager to the HRM department. If some tasks are more efficiently or accurately conducted by the manager, then relegating those activities to an HRM department could result in increased agency costs. In addition, if employees provide information to an HRM group rather than up through line management, there is a risk that information becomes trapped in a group that does not have power to act. As a result, agency costs associated with information asymmetry may be incurred because information was merely transferred, rather than acted upon.

Future research. Although there is an increasing amount of research on how the way in which human resource management is conducted and how various policies and procedures affect firm performance, our research suggests there is a need to step back and take a broader look at what constitutes SHRM. This research provides some initial evidence that it is fruitful to view SHRM from a more macro perspective, as an overall approach to monitoring employees. However, it also highlights the need to investigate the effect on firm performance of not only administrative HRM, but also the effects of other forms of HRM.

Specifically, administrative HRM as captured in this study appears to differ dramatically from what researchers are characterizing as strategic HRM. Specifically, strategic HRM has been characterized as the simultaneous horizontal alignment among HR practices and vertical alignment between that set of HR practices and firm strategy. Many researchers (e.g. Dyer & Kochan, 1994; Mohrman, Lawler, & McMahan, 1996) suggest that strategic HRM will only be achieved when the chief human resource executive becomes a "strategic partner;" that is, when

he/she has a place at the table, as part of the executive management team, reporting directly to the CEO.

As part of this overall research study, we interviewed several CEOs of smaller, growing firms, such as those studied in the research. These CEOs recently added an HR executive reporting directly to the CEO. When asked why they decided to have the function report directly to the CEO, they provided us with answers that may be useful in guiding future research. First, these individuals indicated a desire to send a message to employees that the management of the workforce was important to the CEO. If it were relegated to the CFO, for example, it would communicate that employee needs are not important enough to be brought to the attention of the CEO. In addition, these individuals wanted the HR executive to learn the company culture from the CEO's perspective. In fact, one of the CEOs said of his HR executive "she's valuable because she knows the culture as well as I do, and she supports it every day." When the HR officer becomes part of the management team, the CEO influences the HR executive, and the HR executive has an opportunity to influence the management team.

Though this may be characteristic of what previous researchers have called "strategic HRM," we prefer to call it "alliance HRM." Although the two may be equivalent, we can envision a strategic HRM function (has internal alignment of HR practices and alignment with business strategy) that is also extremely bureaucratic and administrative. More consistent with our notion of alliance HRM is Snell, Youndt, and Wright's (1996:62) broad definition of SHRM as "organizational systems designed to achieve competitive advantage through people." Rather than simply relying on the strategy literature, which has been so pervasive in the past, perhaps research on organizational climate and culture would help inform us as to how these different forms of control affect performance. In addition, the differences and similarities of administrative HRM, strategic HRM, and alliance HRM need to be clarified and investigated. Limitations

This study is unique in that we operationalized bureaucratic control as having an administrative human resource management function. Although this provides new insights for the SHRM and agency theory literatures, it is also a limitation because this measure has not been used in other work. Given that we coded prospectuses written in 1988, it was unrealistic to go back to these organizations today to gather additional information about the human resource function in 1988. Future research that can further specify the nature of both administrative and alliance HRM would contribute to validation of the construct. Additionally, research that includes both administrative and alliance HRM should broaden our understanding of SHRM.

Our sample presents some problems due to the relatively small sample size and limited generalizability. The sample size is relatively small from the start and is reduced over time due

to the fact that firms begin to drop from the sample (non-survivors). We studied only one cohort of firms, those that went public in 1988. Research that includes more companies and a more recent sample may yield different results. This, in turn, may contribute to the generalizability of our results. The results are most applicable to initial public offering firms, but research needs to be expanded to private firms and larger organizations to determine if the same effects are evident. Conclusion

Although there are several limitations to this study, we believe that it makes an important contribution to the SHRM and agency theory literatures. Although the study was conducted with a unique sample, it is possible that the results generalize to larger firms that are undergoing change. If the underlying process is control over all employees, there is no reason to believe that employees in IPO firms are much different from employees in larger, changing companies. Rather than generalizing to the overall corporation, these findings may be more applicable at the division or business unit level.

Snell and Youndt (1995: 712) recently stated that "organizational performance is the *raison d'etre* for HRM control - its mismanagement can lead to confusion, inefficiency, and the like ...." While we agree with that statement, this research extends the boundaries of "HRM control" beyond the confines of the policies and practices of the human resource department, and demonstrates that incentive alignment and CEO ownership can have positive effects on firm performance.

## REFERENCES

- Abowd, J.M., Milkovich, G.T., & Hannon, J.M. 1990. The effects of human resource management decisions on shareholder value. Industrial and Labor Relations Review, 43 (Special Issue): 203S-236S.
- Baird, L. & Meshoulam, I. 1988. Managing two fits of strategic human resource management. Academy of Management Review, 13(1): 116-128.
- Barney, J. & Ouchi, W. 1986. Organizational economics. San Francisco, CA: Jossey-Bass.
- Beatty, R.P., & Zajac, E.J. 1994. Managerial incentives, monitoring, and risk bearing: A study of executive compensation, ownership, and board structure in initial public offerings. Administrative Science Quarterly, 39: 313-335.
- Becker, B. E. & Olson, C. A. 1989. Unionization and shareholder interests. Industrial and Labor Relations Review, 42(2): 246-261.
- Beer, M. 1997. The transformation of the human resource function: Resolving the tension between a traditional administrative and a new strategic role. Human Resource Management, 36(1): 49-56.
- Dyer, L. & Kochan, T. 1994. Is there a new HRM? Contemporary evidence and future directions. CAHRS Working Paper #94-22. Cornell University, School of Industrial and Labor Relations.
- Edwards, R. (1979). Contested terrain: The transformation of the workplace in the twentieth century. New York: Basic Books, Inc.
- Eisenhardt, K. M. 1989. Agency theory: An assessment and review. Academy of Management Review, 14: 57-74.
- Fama, E. F. 1980. Agency problems and the theory of the firm. Journal of Political Economy, 88: 288-307.
- Fama, E. F. & Jensen, M. L. 1983. Separation of ownership and control. Journal of Law and Economics, 26: 301-325.
- Fox, J. 1997. Learn to play the earnings game (and Wall Street will love you). Fortune, March 31: 77-80.
- Gerhart, B., & Milkovich, G.T. 1990. Organizational differences in managerial compensation and financial performance. Academy of Management Journal, 33: 663-691.
- Glassman, C.A. & Rhoades, S.A. 1980. Owner vs. manager control effects on bank performance. Review of Economics and Statistics, 27: 263-270.
- Golden, K.A. & Ramanujam, V. 1985. Between a dream and a nightmare: On the integration of the human resource management and strategic business planning processes. Human Resource Management, 24: 429-452.



- Gomez-Mejia, L. R. & Balkin, D. B. 1992. Compensation, organizational strategy and firm performance. Cincinnati, Ohio: Southwestern Publishing Co.
- Hornsby, J.S. & Kuratko, D.F. (1990). Human resource management in small businesses: Critical issues for the 1990s. Journal of Small Business Management, 28(3), 9-17.
- Hoy, F., McDougall, P.P. & Dsouza, D.E. 1992. Strategies and environments of high-growth firms. In D.L. Sexton & J.D. Kasarda (Eds.), The state of the art of entrepreneurship, Boston, MA: PWS-Kent Publishing Company.
- Huselid, M.A., Jackson, S.E. & Schuler, R.S. 1997. Technical and strategic human resource management effectiveness as determinants of firm performance. Academy of Management Journal, 40(1): 171-188.
- Huselid, M.A. 1995. The impact of human resource practices on turnover, productivity, and corporate financial performance. Academy of Management Journal, 38(3): 635-672.
- Ibbotson, R.G. & Ritter, J.R. 1995. Initial public offerings. In R.A. Jarrow, V. Maksimovic, & W.T. Ziemba (Eds.), Finance: North-Holland Handbooks in Operations Research and Management Science, 9: 993-1016.
- Jackson, S. E., Schuler, R. S. & Rivero, J. C. 1989. Organizational characteristics as predictors of personnel practices. Personnel Psychology, 42: 729-786.
- Jensen, M.C. & Meckling, W.H. 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Financial Economics, 3: 305-360.
- Jensen, M. C. & Murphy, K. J. 1990. Performance pay and top-management incentives. Journal of Political Economy, 92(21): 225-264.
- Jones, G.R. & Wright, P.M. 1992. An economic approach to conceptualizing the utility of human resources management practices. In K. Rowland & G. Ferris (Eds.), Research in personnel and human resource management, vol. 10: 271-300. Greenwich, CT: JAI Press.
- Koch, M.J. & McGrath, R.G. 1996. Improving labor productivity: Human resource management policies do matter. Strategic Management Journal, 17: 335-354.
- Lev, B. & Thiagarajan, R. 1993. Fundamental information analysis. Journal of Accounting Research, 31 (Autumn): 190-215.
- MacDuffie, J.P. 1995. Human resource bundles and manufacturing performance: Organizational logic and flexible production systems in the world auto industry. Industrial and Labor Relations Review, 48: 197-221.
- Marino, K.E., Castaldi, R.M., & Dollinger, M.J. 1989. Content analysis in entrepreneurship research: The case of initial public offerings. Entrepreneurship Theory and Practice, Fall: 51-66.
- Martell, K. & Carroll, S.J. 1995. How strategic is HRM? Human Resource Management, 34(2): 253-267.

- McEachern, W.A. 1975. Managerial control and performance, Lexington, Mass: D.C. Heath Company.
- Miles, R.E., & Snow, C.C. 1984. Designing strategic human resource systems. Organizational Dynamics, Summer: 36-52.
- Mohrman, S.A., Lawler, E.E., & McMahan, G.C. 1996. New directions for the human resources organization: An organization design approach. University of Southern California, Center for Effective Organizations.
- O'Flaherty, J.S. 1984. Going public: The entrepreneur's guide. New York: John Wiley & Sons.
- Ouchi, W.G. 1979. A conceptual framework for the design of organizational control mechanisms. Management Science, 25: 833-848.
- Rao, H., & Neilsen, E. H. 1992. The ecology of agency arrangements: Mortality of savings and loan associations, 1960-1987. Administrative Science Quarterly, 37: 448-470.
- Rasheed, A., & Datta, D.K. 1994. Determinants of price premiums: A study of initial public offerings in the medical diagnostics industry. Paper presented at the Academy of Management Annual Meeting, Dallas, TX.
- Saloman, G.L. & Smith. E.D. 1979. Corporate control and managerial misrepresentation of firm performance. Bell Journal of Economics, 10: 319-328.
- Schuler, R. S. 1987. Personnel and human resource management choices and organizational strategy. Human Resource Planning, 10(1): 1-17.
- Snell, S.A. 1992. Control theory in strategic human resource management: The mediating effect of administrative information. Academy of Management Journal, 35(2): 292-327.
- Snell, S.A., & Youndt, M.A. 1995. Human resource management and firm performance: Testing a contingency model of executive controls. Journal of Management, 21: 711-737.
- Snell, S.A., Youndt, M.A., & Wright, P.M. 1996. Establishing a framework for research in strategic human resource management: Merging resource theory and organizational learning. In K. Rowland & G. Ferris (Eds.), Research in personnel and human resource management, vol. 14: 61-90. Greenwich, CT: JAI Press.
- Ulrich, D. 1997. Human resource champions: The next agenda for adding value and delivering results. Boston, Mass: Harvard Business School Press.
- Welbourne, T.M. & Andrews, A.O. 1996. Predicting performance of initial public offerings: Should human resource management be in the equation? Academy of Management Journal, 39(4), 891-919.
- Welbourne, T.M., Balkin, D.B. & Gomez-Mejia, 1995. Gainsharing and mutual monitoring: A combined agency-organizational justice interpretation. Academy of Management Journal, 38(3), 881-889